sciendo

Psychological Safety as a catalyst for Knowledge Sharing

Roxana-Maria STANEIU[*]
National University of Political Studies and Public Administration (SNSPA), Bucharest, Romania
[**]*Corresponding author, roxana-maria.staneiu@facultateademanagement.ro*

Abstract. *The power of knowledge has become one of the main pillars on which one can rely on in a world governed by unpredictability and constant change. The process of knowledge sharing requires a trust climate in which one voluntarily choose to exchange information, values, and beliefs, making Psychological Safety (PS) a shelter to consider under the current hypercompetitive environment, allowing individuals to freely speak up and take risks. The present paper brings into attention creativity, trust, innovation, and transformational leadership as significant pillars of PS, highlighting the bilateral relation between them in conjunction with its effect on Knowledge Sharing. Using a qualitative methodology through bibliometric research in VOSviewer, 759 publications were taken into account to design a statistical bibliography map created by 304 keywords. The results of the paper indicates a positive effect of PS on knowledge sharing process, which is being mediated by innovation, creativity, trust, and transformational leadership.*

Keywords: Psychological Safety, Knowledge Sharing, Knowledge Management, Transformational Leadership, Creativity, Trust

Introduction

Uncertainty has been one of the most prevailing challenges that humans perennially need to face on a global scale (Bolisani & Bratianu, 2017; Gitelman et al., 2021; Sharmaa et al., 2020; Sniazhko & Muralidharan, 2019; Chen et al., 2013). This may also be seen as a psychological barrier, which determines the managers to make the most out of their experience and expertise to simply the problems by employing solutions that proved helpful in the past (Bratianu et al., 2021). In a world which is stucturally governed by the unpredictable and inherent nature of the future, the power of knowledge stands out as a strategic pillar which can be employed in conjunction with one's ability to learn, explore, and share the information within the organization to ensure the successful usage of available tangible and intangile resources (Mehmood et al., 2021). To foster the ubiquitous character of the knowledge management process, with a focus on knowledge sharing, a safe climate of trust on both individual and group level positively may entail a positive influence. Psychological Safety (PS) has become a significant mean of preserving and encourging both knowledge and innovation in the current hypercompetitive environment, which are crucial sources of competitive advantages for organizations (Edmondson A. C., 2018). Being able to freely speak up and taking risks without the fear of being judged, alongside asking questions and admitting mistakes in a collaborative manner create a space of Psychological Safety which positively impacts the knowledge sharing among workers in organizations (Rivera et al., 2021). On the contrary, should one experiences a climate which is characterized by high levels of fear (Irai & Chieh Lu, 2018) or abusive leadership (Agarwal & Anantatmula, 2021), he or she would have a higher tendency to be reluctant to share information, affecting the entire knowledge sharing process, and the organization's ability to create innovation.

The present paper aims to offer a holistic view on how transformational leadership (Detert & Burris, 2007), innovation (Carmeli & Gittell, 2009; Mukerjee & Metiu, 2021), creativity (Guo & Wang, 2017), and trust (Shao et al., 2017) converge towards Psychological Safety in direct

DOI: 10.2478/picbe-2022-0010
© 2022 R.-M. Staneiu, published by Sciendo.
This work is licensed under the Creative Commons Attribution 4.0 License.

relation to an enhanced knowledge sharing process. In the light of this paradigm, the research question of this present study is the following:

RQ1: Does Psychological Safety encourage Knowledge Sharing process?

In order to answer the abovementioned question, the paper presents a qualitative and interpretative research based on a bibliometric approach displayed by VOSviewer application, which is specialized in analyzing tremendous literature reviews (van Eck & Waltman, 2017). The originality element of the present paper lays on the multi-level approach on Psychological Safety in close correlation with Knowledge Sharing process and its implications, offering a novel perspective on how one may employ them together to nourish day to day from a threefold view: individual, team, organization.

With regards to the structure of the current paper, it is organized as follows: the introduction will be followed by a theoretical analysis which shall emphasize the literature review concering the main concepts, focusing on Psychological Safety and Knowledge Sharing. After this, the research methodology and data sources will be detailed, and then the results shall be further outlined. Lastly, the paper highlights the reached conclusions, alongside the limitations and other possible future research directions.

Literature review

Psychological Safety

Psychological Safety construct has its roots back in 1965, when Schein and Bennis (1965), focusing on an individual point of view, highlights a few fundamental characteristics that determine the worker to experience a feeling of safety when it comes to his growing and learning process, alongside performing efficiently in a dynamic and prone-to-change environment (Schein & Bennis, 1965). After three decades, the concept started to be analyzed through the lenses of a group level, when Edmondson, 1999 pointed out the importance of coming into contact with a feeling of safety with regards to situations that require undergoing and accepting interpersonal risks in a team. Thus Psychological Safety encapsulates specific behaviours in a team which ensure a propituous climate: showing proactivity and taking initiative, speaking up their opinions without the fear of being judged or rejected, have a risk-taking mindset, expressing failures and mistakes perceived as learning opporunities, show respect and collaboration even throguh contexts of construtive conflicts, provide constant and relevant feedback, and manifest an authentic interest in each other's as people (Edmondson, 1999; Edmondson & Lei, 2014).

Psychological Safety is a nonlinear construct (Bratianu & Vasilache, 2009) that connects with other cross-functional components of team development, leveraging the overall impact on team development and performance. Transformational leadership is considered a precursor of PS (Detert & Burris, 2007), prompting a positive relation (Frazier et al., 2017). Other types of leadership were also identified as manifesting a positive connection with PS, noting the high-importance of healthy relation between the leader and the team and workers: humble leadership (Wang et al., 2018), inclusive leadership (Javed et al., 2019), charismatic leadership (Shao et al., 2017).

Innovation is treated as another fundamental component which goes hand in hand with PS, as it is considered to be encouraged in climates where people can freely express their opinions, propose new initiatives and ideas, express the voice without the fear of failure and promote learning (Mukerjee & Metiu, 2021). PS enables an environment in which people are willing to question the traditional ways of working, to propose and develop new solutions and

producs, to engage themselves in constructive discussions,and to try out new approaches without the fear of failing, these behaviours being translated into a favorable context for innovation (Andersson et al., 2020)

Creativity is inherent in a workplace where people are encouraged to share ideas and provide feedback openly, PS implying a level of diminising fear a failure due to the important level of collectivisim, consequently fostering the team's creative mindset (Wang, Liu, & Zhu, 2018). Many other studies looked into the effects of PS on creativity, reaching the conclusion that there's a positive correlation between PS and improved team creativity (Guo & Wang, 2017; Lu et al., 2019).

Trust has a direct implication on PS climate not neccesariliy from a cultural perspective or organizational focus, but more related to the individual personality treat of a leader and team members. It has been determined that trustworthiness that the team has in its leader to guide and understand them has a positive impact on PS, while the relation with the leader implies a high level of trust from the workers to feel listened, safe, and supported to challenge the status-quo (Kahn, 1990; Frazier et al., 2017)

Knowledge Sharing

The prominent need of defining the pillars of knowledge management has come from the inexorable emergence of knowledge economy and knowledge-based organizations, knowledge sharing being outlined as a "voluntary process by which an individual is willing to share some of his or her knowledge and experience to other people when there is a climate of trust and common interest" (Bratianu, p.362, 2019). In spite of being a voluntary and proactive behaviour, there is a series of factors which influence the level of knowledge sharing process within an organization, such as organizational culture and structure, reward systems, and the level of trust (trust (Alexandru et al., 2020; Farooq, 2020; Vătămănescu et al., 2015, 2020, 2021). A culture of creativity promoted within organization may also possess a positive impact on the level of knowledge sharing (Li, Liu, & Lin, 2016). Creativity can be percived from a strategic point a view as well, in the sens of the monochromatic creative thinking model is not only inherent when it comes to developing a strategic thinking, but also an epitome of sustaining innovation by being able to create new knowledge in the organizations.

Trust is one of the most fundamental component of knowledge sharing, implying a bilateral perspective: first, it is a mandatory variable for knowledge sharing to occur, promoting the knowledge distribution within a company, and avoidng knowledge hoarding, which appears when there is a low level of trust (Farooq, 2020).

The importance of knowledge sharing in the overall ecosystem of an organization strategy is also demonstrated by the fact that it has been recognized as an essential management process (Al Nahyan et al., 2019). In order to be able to solve complex problems and challenges by knowledge redistribution to the right actors through knowledge sharing, organizations need to continue generating new knowledge and ensuring a sustainble climate for this to happen (Ferraris et al., 2017)

Psychological Safety as a vehicle for fostering Knowledge Sharing

The modern business economy is characterized by a more and more considerable number of fast-growing and dynamic organizations, which distinguish themselves by a high-level of organizational entropy, which is invaluably useful when it comes to expanding creativity and promoting innovation (Bratianu, 2019). To design an effieicent way of benefit from organizational entropy,

one may start with setting the foundation of a PS climate, provided that "a psychologically safe environment enables divergent thinking, creativity, and risk taking and motivates engagement in exploratory and exploitative learning" (Edmondson and Lei, 2014, p. 31).

According to Wang and Liu, 2018, PS may not have an influence on creativity, if the knowledge sharing system is lacking, having in mind that generating creative ideas is by definition a component of knowledge creation (Wang et al., 2018). Moreover, PS is related to knowledge creating, and subsequently to knowledge sharing, through the team learning on which it implies a positive influence (Cauwelier et al., 2019), alongside the trust and transformational leadership positive forces.

In a world which is revolutionazing at a exponential speed through the way organizations engender value and promote innovation, the individual approach is more and more prone to make a difference at broader levels as well, based on the fact that "to the entire ecosystem is remapped, by linking people, knowledge, information, expertise, competence, know-how within complex and dynamic collaborative networks" (Vătămănescu & Alexandru, p. 277, 2018). A way to do this is through PS, making it part of the organizational mindset and promoting its impact on three levels: individual, team, organization. That phenomenon becomes even more important during complex cirses like the COVID pandemic (Bratianu & Bejinaru, 2021).

Methodology

The current paper employs the bibliometric research, also known as statistical bibliography, in order to provide an answer to the formulated research question: Does Psychological Safety encourage Knowledge Sharing process?

The data was retrieved on Monday, January 31st, 2022, from the Web of Science (WoS) Core Collection, which represents one of the most scientific instruments across the globe for scientific publication, having a fundamental impact (Li et al., 2018). The retrieval model was completed based on an advanced search function, and the time range varied between 1975 and 2022. With regards to the other filters, the default settings provided by WoS were displayed. We took into account all documentation types (Articles, Review Articles, Book Chapters, Proceedings Papers, Early Access, Editorial Materials, Book Reviews).

There were four concepts taken into account, namely PS, organizational culture, positive team climate, abusive leadership, and they were searched one by one in the topic fields. Concerning the date of the first publications for each concept, as well as the weight of 2019-2022 years varied as follows:

Table 1. Main concepts frequencies distribution and Share in Total on WoS

Concept	First Publications in WoS (year)	Total Number of Publications (no)	Share of 2019-2022 years in the total age interval (%)
"Psychological Safety" (in organization)	1999	759	45,58%
"organizational culture"	1975	50.581	28,97%
"positive team climate"	2008	21	52,38%
"abusive leadership"	2010	41	58,53%

Source: Authors' own research.

It may be observed a shortage of publications in WoS correlated to "positive team climate" and "abusive leadership", provided that these concepts are still at the beginning of their

research phase. On the opposite, with regards to "organizational culture", the results were too generic and broad in order to generate insightful information to be taken into account. Therefore, we decided to keep the focus on Psychological Safety as the main pillar to design the foundation to formulate the answer to the research question.

Bringing the attention to the "Psychological Safety" in organization data exported, we defined the literature type as "all type", and we obtained 759 results which met the default criteria. Out of this total number, there were 668 Articles, 41 Book chapters, and 41 Proceeding Papers. The below table showcase the types of publications, as well as their share in the total number of 759.

Table 2. Main concepts frequencies distribution and Share in Total on WoS

Documentation Type	Frequency	Share in total (%)
Articles	668	88,01%
Book Chapters	41	5,4%
Proceedings Papers	41	5,4%
Main Others	9	1,19%
Total	759	100%

Source: Authors' own research.

The steps to create the visual map were the followings: First, we selected the option to create a map based on bibliographic data that we just exported. Then we read the data from the bibliographic database files, when we uploaded the two batches that we retrieved from WoS. For the "type of analysis", we selected Co-Occurrence, and as a Unit of Analysis, we chose All keywords. Minimum number of occurrences of a keyword was selected at 5, resulting in 304 keywords that met the threshold.

Results and discussions

By making use of Co-Occurrence function, the keywords were organized in visual clusters that together created a map. From the total number of 759 publications, there were 304 keywords which appeared at a minimum of 5 times (the threshold set). The keyword co-occurrence network of Psychological Safety (see below map: figure 1) was processed and built by the VOSviewer software application which was described in the previous section of the current paper.

It is important to mention that the size of the words and the corresponding nodes reflects their weights, as it can be seen in Table 3. Regarding the distance between two notes, it represents the strength of the connection or relation between them, therefore a longer distance indicates a weaker relation, while a shorter one may imply a stronger relation. If there is a line between two words, it means that they appeared together in the publication, while the thickness of the line showcases the co-occurrence level: the thicker the line, the more co-occurrence they have, namely they appeared more times together. When it comes to clusters, they are represented by the words which are grouped together under the same color code, based on a specific area of research. To illustrate this, we propose to take Cluster 5 as an example, the purple one (Figure 1, top right, 28 items). It gravitates around the main concept of "creativity", alongside concepts related to leadership, such as "transformational leadership", "charismatic leadership" or "inclusive leadership". The main focus is on the "mediating role" of PS. It also indicates a focus on "team creativity" and "learning behavior". pointing that these concepts have an influence on PS, especially creativity and employee creativity, which is an important aspect for knowledge sharing as well.

The red cluster (Figure 1, cluster 1, bottom right, 82 items) gravitates around "work", which may imply the various implications PS has on the work itself. Also, "proactivity", "employee voice", "impact", "voice", and "attitudes" stand out both because of their co-occurrence, but also the direct links between them. Also, "trust" is present, marking the direct relation with PS.

The green cluster (Figure 1, cluster 2, bottom left, 76 items) covers important concept for the PS in relation with knowledge sharing, such as "performance", "management", "behavior", "communication", "culture", "failure". This cluster suggests the conceptual ideas which contribute to the foundation of PS, and it can be observed that they have both high co-occurrence and strong direct links.

The dark blue cluster (Figure 1, cluster 3, up-centered right, 52 items) reveals a strong connection between "team learning" and PS, which has a direct implication of knowledge sharing, having in mind group learning is directly correlated with the exchange of information and beliefs. "Diversity" and "team performance" are also present on the map, and it can be noticed that there is a strong link with PS and its moderating role.

The yellow cluster (Figure 1, cluster 4, up-centered right, 32 items) is the one highlighting the most knowledge sharing related-concepts, such as "knowledge creation", "knowledge", "knowledge sharing" itself, "knowledge management", "knowledge transfer", all being directly linked to PS. Also, "innovation" is the compass of this cluster, and it has a very high co-occurrence, as long as direct link to PS. It may be observed that the fact that "innovation" appears in the same cluster with knowledge sharing concepts, including "organizational learning" as well, demonstrates a strong relation between the way PS and knowledge sharing interacts to generate innovation within teams, marking the impact PS has on the knowledge sharing process.

The light blue cluster (Figure one, cluster 6, centered, 9 items) includes words such as "emotion", "employees", "consequences", indicating the outcomes that PS might have on employee in terms of expressing and managing emotions in the climate that it presents.

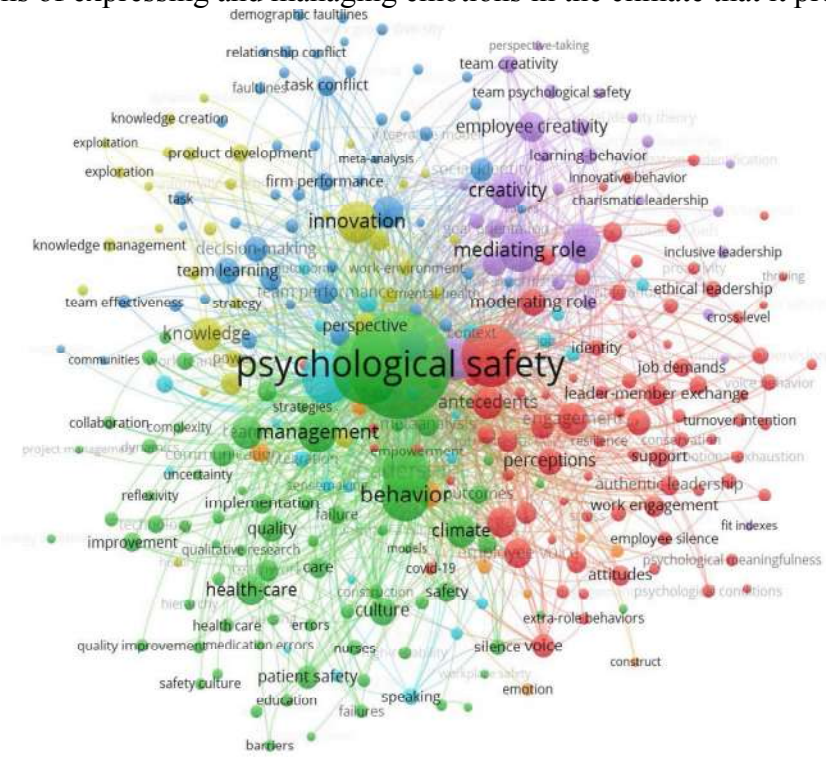


Figure 1. Keywords' co-occurrence network of WoS CQ-related publications – by VOSviewer

Source: Authors' own research.

Considering the abovementioned clusters, which reflects themselves into the research questions as well, we point out the top 10 keywords for which PS has the strongest co-occurrences with and direct strong connection.

Table 3. Psychological Safety: Top 10 items by occurrence by VOSviewer

Position	Keywords	Occurrences
1	psychological safety	585
2	performance	266
3	work	202
4	organizations	146
5	behavior	139
6	leadership	129
7	innovation	91
8	transformational leadership	82
9	creativity	70
10	knowledge	54

Source: Authors' own research.

In order to determine a more focused approach on the occurrences and link strength, we propose using the method of regrouped concepts, which helps in determining the impact of specific keywords on pre-selected construct related to PS and knowledge sharing that have been stipulated above.

Table 4. Keyword's co-occurrence network of PS-related publications / Direct links to PS – by VOSviewer

Item 1	Item 2		Direct PS link strength (sum)
Psychological Safety	**Name**	**Category**	
	• transformational leadership (82) • management (85), project management (5) • behavior (139) • employee, charismatic, autonomy, personality (51)	Transformational Leadership	362
	• Innovation (91), innovative behavior (8) • Knowledge, knowledge creation, change, knowledge sharing (93) • Learning, learning behaviors, team learning, learning organization, organizational learning, workplace learning (93) • Proactivity, decision-making, strategy, strategic decision-making (55)	Knowledge Management & Innovation	340
	• Creativity (70) • Employee creativity, team creativity, individual creativity (67)	Creativity	137
	• Trust (50) • Engagement (51), employee engagement (9) • Communication, cooperation, employee voice, positive relationships (86)	Trust	196
	• Performance (266) • Team performance, organizational performance, job performance, group-performance (63)	Performance	329

Source: Authors' own research.

Registering a cumulative PS link of 362, transformational leadership is the strongest group link based on strength with PS. Consequently, we may refer to psychological safety as a facilitator of applying transformational leadership in the organization.

Our analysis highlights and reconfirms the fact that PS is strongly related to knowledge management, namely knowledge sharing, fostering innovation in the organizations and promote a culture of learning, provided the cumulative link strength of 340.

Our research also reveals the direct implications of PS on performance, implying that a climate of PS can positively impact both team and organizational performance, with third strongest link strength from Table 6: 329. This could be due to the learning culture that it is promoted amongst the workers, as well as the propensity to innovation through knowledge sharing.

Lastly, creativity and trust are demonstrated to be important constructs in nourishing psychological safety and may be perceived as key facilitators of PS and knowledge sharing.

Transformational Leadership, Innovation, Creativity and Trust are therefore key components of psychological safety, boosting its foundation and continuous evolution and making it a catalyst for knowledge sharing through the climate it entails, which is tailored on individual, team, and organizational level. Having in mind transformational leadership, innovation, creativity, and trust are also fundamental elements which stimulates and are being developed through knowledge sharing, we may conclude by confirming that Psychological Safety encourages the knowledge sharing process.

Conclusion

Through the lenses of transformational leadership, creativity, trust, and innovation, psychological safety proved to have a positive influence on encouraging the knowledge sharing process. In order for the organizations to preserve and enrich their competitive advantage, it is of utmost importance to offer the employees a climate which will help them learn and not only exchange information, values, and beliefs through knowledge sharing, but also create new knowledge that might be the foundation for finding new solutions for the more complex challenges we face in the modern business world.

By using VOSviewer as means to perform the bibliometric analysis, we found that PS has a positive and direct contribution on the knowledge sharing process, results which are in line with previous research on this matter (Rivera et al., 2020; Siemsen et al., 2009; Qian et al., 2020). In particular, the present studies contribuies to the literature by treating a the PS from a 4-point perspective through the lesnes of transformational leadership, creativity, trust, and innovation, and it emphasizes its impact on knowledge sharing process. It may also serve as a valuable source of information for teachers and managers who constantly look to better understand the dynamics of a team to improve their performance and the overall impact at organizational scale.

Taking into consideration the methodology used in the shape of bibliometric approach through VOSviewer, there are a few limitations that come alongside it: with English being the preferred language for research literature selection in the software, some publications in the local languages might have been omitted. Also, KS has more structural elements which may be taken into account when analysis the concept, therefore the chosen constructs might not cover all the implications the PS may impose on knowledge sharing.

The psychological spectrum will continue to grow and evolve by offering significant information on how people and team act under various circumstances, therefore it may prove helpful to further investigate how PS can be expended in order to deal with constant changes that

describe the dynamic workplace in modern society. Also, it could be interesting to observe how PS could influence the process of knowledge dynamics, and how thinking patterns are influenced by it.

References

Alexandru, V.-A., Andrei, A.G., Bolisani, E., Cegarra-Navarro, J.G., Martinez-Martinez, A., Paiola, M., Scarso, E., Vătămănescu, E.-M., & Zieba, M. (2020). Knowledge Management approaches of small and medium-sized firms: a cluster analysis. *Kybernetes, 49*(1), 73-87. DOI: 10.1108/K-03-2019-0211

Agarwal, U. A., & Anantatmula, V. (2021). Psychological Safety Effects on Knowledge Sharing in Project Teams. *IEEE Transactions on Engineering Management, 1-11*. DOI:10.1109/TEM.2021.3087313

Al Nahyan, M., Sohal, A., Hawas, Y., & Fildes, B. (2019). Communication, coordination, decision-making and knowledge-sharing: a case study in construction management. *Journal of Knowledge Management, 23(9)*, 1764-1781.

Andersson, M., Moen, O., & Brett, P. O. (2020). The organizational climate for psychological safety: Associations with SMEs' innovation capabilities and innovation performance. *Journal of Engineering and Technology Management, 55,* 101554.

Bolisani, E., & Bratianu, C. (2017). Knowledge strategy planning: an integrated approach to manage uncertainty, turbulence, and dynamics. *Journal of Knowledge Management, 21(2)*, 233-253.

Bratianu, C. (2019). Exploring knowledge entropy in organizations. . *Management Dynamics in the Knowledge Economy, 7(3)*, 353-366.

Bratianu, C. & Bejinaru, R. (2021). COVID-19 induced emergent knowledge strategies. *Knowledge and Process Management*, 28 (1), 11-17.

Bratianu, C. & Vasilache, S. (2009). Evaluating linear-nonlinear thinking style for knowledge management education. *Management & Marketing*, 4(3), 3-18.

Bratianu, C., Vătămănescu, E.-M., Anagnoste, S., & Dominici, G. (2021). Untangling knowledge fields and knowledge dynamics within the decision-making process. *Management Decision, 59(2)*, 306-323.

Carmeli, A., & Gittell, J. H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 30(6)*, 709-729.

Cauwelier, P., Ribiere, V. M., & Bennet, A. (2019). The influence of team psychological safety on team knowledge creation: a study with French and American engineering teams. *Journal of Knowledge Management, 23(6)*, 1157-1175.

Chen, A., Fabozzi, F., & Huang, D. (2013). Optimal corporate strategy under uncertainty. *Applied Economics, 45(20)*, 2877-2882.

Detert, J. R., & Burris, E. R. (2007). Leadership Behavior and Employee Voice: Is the Door Really Open? *Academy of Management Journal, 50(4)*. 869-884.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative science quarterly, 44(2)*, 350-383.

Edmondson, A. C. (2018). *The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth.* John Wiley & Sons.

Edmondson, A., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. *Annu. Rev. Organ. Psychol. Organ. Behav., 1(1)*, 23-43.

Farooq, R. (2020). A conceptual model of knowledge sharing. *International Journal of Innovation Science, 10(2)*, 238-260.

Ferraris, A., Santoro, G., & Dezi, L. (2017). "How MNC's subsidiaries may improve their innovative performance? The role of external sources and knowledge management capabilities. *Journal of Knowledge Management, 21(3)*, 540-552.

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017, Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. Personnel Psychology, 70(1), 113 -165..). Psychological safety: A meta-analytic r eview and extension. *Personnel Psychology, 70(1)*, 113-165.

Gitelman, L. D., & Kozhevnikov, M. V. (2021). Strategic intelligence of an organization amid uncertainty. *International Journal of Energy Production and Management, 6(3)*, 294-305.

Guo, W., & Wang, D. (2017). Does joint decision making foster team creativity? Exploring the moderating and mediating effects. *Personnel Review, 46(8)*, 1590-1604.

Irai, P., & Chieh Lu, A. C. (2018). Exploring the relationship among psychological safety, knowledge sharing, and innovation. *Journal of Administrative and Business Studies, 4(3)*, 126-135.

Javed, B., Abdullah, I., Zaffar, M. A., ul Haque, A., & Rubab, U. (2019). Inclusive leadership and innovative work behavior: The role of psychological empowerment. *Journal of Management & Organization, 25(4)*, 554-571.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692-724.

Li, K., Rollins, J., & Yan, E. (2018). Web of Science use in published research and review papers 1997–2017: A selective, dynamic, cross-domain, content-based analysis. *Scientometrics, 115(1)*, 1-20.

Li, Y., Liu, Z., & Lin, Y. (2016). Where Is the Driving Force of Employee's Knowledge Sharing? The Multilevel Effect of Innovative Culture. *Economic Management, 5, 75-86.* .

Lu, J., Zhang, Z., & Jia, M. (2019). Does servant leadership affect employees' emotional labor? A social information-processing perspective. *Journal of Business Ethics, 159(2)*, 507-518.

Mehmood, M. S., Jian, Z., Akram, U., Akram, Z., & Tanveer, Y. (2021). Entrepreneurial leadership and team creativity: The roles of team psychological safety and knowledge sharing. *Personnel Review, ahead-of-print*.

Mukerjee, J., & Metiu, A. (2021). Play and psychological safety: An ethnography of innovative work. *Journal of Product Innovation Management, in press*.

Qian, J., Zhang, W., Qu, Y., Wang, B., & Chen, M. (2020). The enactment of knowledge sharing: the roles of psychological availability and team psychological safety climate. *Frontiers in Psychology, 23*, 2292.

Rivera, A. E., Rodríguez-Aceves, L., & Mojarro-Duran, B. I. (2020). Enabling knowledge sharing through psychological safety in inter-organisational arrangements. *Journal of Knowledge Management, 25(5)*, 1170-1193

Schein, E., & Bennis, W. G. (1965). *Personal and organizational change through group methods: The laboratory approach.* New York: JohnWiley and Sons. Inc.

Shao, Z., Feng, Y., & Wang, T. (2017). Charismatic leadership and tacit knowledge sharing in the context of enterprise systems learning: the mediating effect of psychological safety climate and intrinsic motivation. *Behaviour & Information Technology, 36(2)*, 194-208.

Sharmaa, P., & Leung, T. e. (2020). Managing uncertainty during a global pandemic: An international business perspective. *Journal of Business Research, 116*, 188-192.

Siemsen, E., Roth, A. V., Balasubramanian, S., & Anand, G. (2009). The influence of psychological safety and confidence in knowledge on employee knowledge sharing. *Manufacturing & Service Operations Management, 11(3)*, 429-447.

Sniazhko, S., & Muralidharan, E. (2019). Uncertainty in decision-making: A review of the international business literature. *Cogent Business & Management, Vol. 6(1)*, 1650692.

van Eck, N., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics, 111*, 1053–1070.

Vătămănescu, E. M., & Alexandru, V. A. (2018). Beyond innovation: The crazy new world of industrial mash-ups. In Knowledge management in the sharing economy. In E. M. Vătămănescu, & F. M. Pînzaru, *Knowledge management in the sharing economy. Cross-Sectoral Insights into the Future of Competitive Advantage* (2018), Springer.

Wang, Y., Liu, J., & Zhu, Y. (2018). Humble leadership, psychological safety, knowledge sharing, and follower creativity: a cross-level investigation. *Frontiers in Psychology, 9, 1727*.