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Activation, Use, and Exchange of Existing Knowledge Among Employees in Organizations

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Abstract:

Research Question (RQ): We asked regarding the use of existing knowledge among employees in the studied organizations and the methods used to activate the different dimensions of employee knowledge within the organization. The aim was to promote employees' willingness to exchange knowledge with each other.

Purpose: The purpose was to find ways to use the existing knowledge of employees and methods to activate dimensions of employee knowledge within the organizations studied.

Method: Based on a theoretical literature review, we initiate the research protocol using the Delphi technique in which experts respond to open-ended questions. The process concludes with a consensus in the third round. The developed questionnaire is then distributed to engineers of all ages working in large manufacturing organizations.

Results: Key factors for knowledge activation include collaboration in the work process, mentoring, participation in projects, orientation programs and internal education. Developing a culture that encourages knowledge sharing and recognizing and developing the competencies of individuals, especially in cross-age and expertise teams, are critical to successful knowledge exchange and use. It is recommended to promote lifelong learning, participate in mentoring programs, and establish effective knowledge exchange processes to improve organizational culture. In the second part of the study, we confirmed the significant impact of using existing knowledge (H1) on knowledge exchange among engineers in manufacturing organizations. We observed a positive change of 13.2 %, which was further validated by an F-test and an effect size ($f^2 = 0.160$). We also statistically confirmed the importance of knowledge activation (H2), albeit with a relatively small effect size (f^2 = 0.070), which was assessed by appropriate statistical tests. The empirical contribution shows that the use of existing knowledge and knowledge activation significantly influence knowledge exchange among engineers in selected organizations in Slovenia. Specifically, we found that knowledge activation explains 7 % of the variability, while the use of existing knowledge contributes 13.2 % to knowledge exchange. Both variables show a positive effect on the process of knowledge exchange in the context of manufacturing organizations.

Organization: The impact of the study on managers and organizations is that it provides them with concrete guidance for effective knowledge management in organizations. Managers can use the results to formulate guidelines and strategies for knowledge exchange and thus improve the organizational culture. The study encourages the establishment of mentoring processes, participation in projects, onboarding programs and internal training to promote knowledge exchange, which is crucial for effective employee management. The results of the study provide concrete guidance for the design of policies and strategies for knowledge exchange in organizations.

Society: The impact of the research on society is reflected in its contribution to improved knowledge management in organizations, leading to a better working environment and more successful business operations. The emphasis on collaboration, mentorship, and knowledge exchange also promotes lifelong learning and the development of individual competencies. This can have a positive impact on innovation, productivity, and the competitiveness of organizations, which in turn has a long-term positive impact on society.

Originality: The value of the study lies in the combination of knowledge activation and the use of existing knowledge, focusing on specific strategies for knowledge exchange in the context of engineering manufacturing organizations in Slovenia. The study contributes to a broader understanding of the dynamics of knowledge exchange and provides practical guidance for policy makers, owners and managers of organizations.

Limitations / further research: We recommend that future researchers broaden the geographical scope of their studies to increase the generalizability of the results. We also suggest including a diverse sample of organizations from different sectors, not limited to large manufacturing firms, to gain a more comprehensive insight into the dynamics of knowledge exchange. Additional methods to enhance participant responsiveness and a focus on monitoring the long-term impact of global events on organizations could be useful contributions to a more comprehensive understanding of strategies for leveraging existing knowledge, knowledge activation, and knowledge exchange in organizations.

Keywords: knowledge, knowledge activation, knowledge use, existing knowledge, exchange, organization, employees.

1 Introduction

Knowledge in an organization is a crucial component of success and competitive advantage. It is essential for organizations to be aware of the importance of knowledge, actively develop it, store it, and share it among employees. In the modern business environment, where competitiveness is key to the long-term success of organizations, the significance of knowledge management is increasing. With the advent of the fourth industrial revolution, visible changes and improvements in knowledge management processes are evident. Industry 4.0 emphasizes the interconnectedness of machines, their autonomous learning, and data sharing, leading to greater efficiency and knowledge scope within organizations (Schneider, 2018, pp. 803–848). The accelerated development opens a new chapter with Industry 5.0, promoting creative innovation and the development of new business models. Although the concept is still in development, exceptional progress and innovative solutions are already visible in various sectors. Advances in technology and work approaches also bring changes in the orientation of generations. Younger employees, in particular, strive for the automation of work as it enables a more comfortable and creative life. The uniqueness of Industry 5.0 lies in the collaboration of all employees, where the experiences and skills of older generations complement the new ideas and creative work of the younger ones. Simultaneously, this development requires progress in emotional intelligence, a key element for successful connections between humans and machines (Deguchi et al., 2020, pp. 1–24).

Sisson and Ryan (2017, pp. 29–69) introduced the concept of knowledge, encompassing various aspects such as understandability, incomprehensibility, similarity, knowledge, competence, value, and verifiability. These concepts help expand the understanding of knowledge and its role in management, innovation, and entrepreneurship. A better understanding of these concepts can assist organizations in improving knowledge management and grounding strategies on a firmer foundation (Sisson & Ryan, 2017, pp. 29–69). Effective knowledge exchange plays a

crucial role in increasing the level of innovation (Muhammed & Zaim, 2020, pp. 2455–2489). Additionally, it contributes to retaining and exploiting acquired knowledge, encourages rapid information exchange, identifies and effectively implements best practices, accelerates problem-solving, integrates and benefits from fresh expertise, thus promoting both individual and organizational learning.

In this context, a key question arises: how to enable the use of existing employee knowledge and how to activate various dimensions of knowledge in the organization? The aim of this research is to discover concrete strategies and guidelines that will encourage employees to be ready for mutual knowledge exchange, bringing added value and competitive advantage.

The methodological approach will be based on the Delphi technique, where we will obtain expert opinions to shape the questionnaire. We intend to distribute this questionnaire among engineers in large manufacturing organizations to gain insight into the dynamics of knowledge exchange in the Slovenian context.

The purpose of the research is to examine how to activate knowledge in the organization and how to utilize the existing knowledge of employees within the organization. We expect the study to provide new insights into the impact of using existing knowledge and knowledge activation on exchange among engineers. These results will offer organizations and managers concrete guidance for forming policies and strategies for knowledge exchange, and strengthening organizational culture. Simultaneously, the research will contribute to a broader understanding of the dynamics of knowledge exchange, providing practical guidelines for policymakers in organizations.

2 Theoretical framework

It has been recognized that knowledge plays a crucial role within organizations as a critical business resource. Over time, knowledge becomes an asset for individuals and organizations as it is encapsulated in shared information within knowledge bases that encompass the mental models and technical knowledge of individuals (Nonaka, Takeuchi, 1995, p. 69). Islam, Ahmad, Kaleem, and Mahmood (2020, pp. 205–222) define knowledge as an essential and central element for the survival of an organization. Bock et al. (2005, p. 87) add that knowledge in an organization is the basis for creating economic value and competitive advantage.

Our aim was to find out how existing knowledge is applied and activated in the practical working environment. We present the key areas that influence effective knowledge management in an organization as outlined by Wiig. Wiig (1993, p. 62) identifies the following areas of knowledge management:

- How knowledge is acquired (learned, codified, built).
- What knowledge represents.

- How knowledge is structured and organized to be useful.
- How reasoning and thinking are performed.
- How knowledge is applied in practice.

Organizations focus on the value of their knowledge and design it in such a way that it is unique and clearly differentiates their business results from those of their competitors. The efficiency and success of any organization depend heavily on the quality and amount of knowledge available (Rafique, Hameed, & Agha, 2018, pp. 44–56). Knowledge management activities include the acquisition, codification, storage, transfer, use, and sharing of knowledge (Deng, & Lu, 2022, pp. 433–453). One of the most important goals of knowledge management is to systematically influence the exchange and use of knowledge with the aim of creating value (Kozhakhmet, & Nazri, 2017, pp. 150–164). The effectiveness and success of any organization depend largely on the quality and quantity of knowledge it possesses. Knowledge management activities include the acquisition, codification, storage, transfer, use, and sharing of knowledge (Deng, & Lu, 2022, pp. 343–453).

Throughout the history of knowledge studies, numerous definitions of both knowledge and knowledge exchange have evolved. Nguyen, Siri, and Malik (2021, pp. 70-87) define knowledge exchange as follows: "Knowledge exchange is the process of learning from employee to employee to help each other increase their potential, solve problems, and enhance job performance." The emphasis is on the importance of knowledge exchange for any organization and on the motivations for knowledge exchange. This emphasis on knowledge exchange underscores the need to understand the underlying organizational culture and behaviors that facilitate or hinder this process. In this context, Molek et al. (2023) provide valuable insights by discussing how the 'hero culture' and 'silo mentality' influence organizational dynamics. These concepts are critical to understanding the barriers to knowledge exchange in organizations. A hero culture, in which individual achievements are overemphasized, can lead to a reliance on specific individuals or groups for knowledge, overshadowing the collective wisdom of the organization. Conversely, a silo mentality characterized by departmental isolation can restrict the flow of knowledge across different parts of the organization, reducing the overall effectiveness of knowledge exchange. Addressing these cultural dynamics is critical to increasing the potential for learning, problem solving and performance improvement in organizations (Molek et al., 2023, pp. 1–17). Some authors have studied knowledge exchange in relation to an organization's financial performance. Yeboah (2022, pp. 1–39) confirmed a positive relationship between knowledge exchange and financial and market performance. Imamoglu et al. (2007, pp. 899–906), Wang, Wang (2012, pp. 8899– 8908), Singh et al. (2019, pp. 788-798) and Son et al. (2020, pp. 1-13) have also studied and confirmed a positive relationship between knowledge exchange and financial performance.

Modern organizations are increasingly aware of the importance of knowledge management for the long-term preservation of competitive advantages in the face of increasing competitive pressure. Understanding knowledge management processes, in particular the creation, transfer, acquisition, storage and use of knowledge in the organizational environment, is becoming increasingly important. The effects of the fourth industrial revolution can be seen in the redesign and improvement of knowledge management processes. Industry 4.0 focuses on the ability of independent learning and data sharing, increasing the efficiency and scope of knowledge in organizations and enabling better use of knowledge to achieve a competitive advantage (Manesh, Pellegrini, Marzi, & Dabic, 2020, pp. 289–300). The uniqueness of Industry 5.0 is expressed in the comprehensive integration of all employees, where the rich experience and skills of older people complement innovative ideas and the creative work of the younger generation. Simultaneously, this advanced development requires progress in emotional intelligence, a crucial component for successful human-machine integration (Deguchi, et al., 2020, pp. 1–24).

Chatterjee, Chaudhuri, and Vrontis (2022, pp. 706–733) state that knowledge exchange is an important process for improving the strategic, innovative, and marketing capabilities of organizations. Therefore, knowledge exchange is a critical part of the knowledge management process (Deng &, Lu, 2022, pp. 343–453) and the structures that ensure the effective use and activation of available knowledge resources to improve performance (Mehmood et al., 2022, pp. 2404–2425). The study of organizational energy by Božič, Gorenc Zoran, and Jevšček (2023, pp. 1–17) provides valuable insights into knowledge management and emphasizes how different forms of energy within an organization, such as productive and corrosive energy, can significantly influence the activation and exchange of knowledge. This perspective underscores the importance of managing these energy dynamics to improve organizational learning and competitive advantage.

Employees are tied to tasks with specific knowledge, which means that the organization is in some way dependent on its employees and their knowledge. Lam (2011, 162–176) writes that the key to an organization's long-term success lies in its ability to leverage existing competencies and knowledge and constantly explore new opportunities to be competitive in a changing market and modern business environment (pp. 162–176). Activating and leveraging the existing knowledge in the organization is critical for success and a competitive advantage (Ahmad & Karim, 2019, pp. 207–230). The organization must recognize the value of the knowledge already acquired by its employees and create an environment that fosters collaboration and information sharing. This process enables problem-solving, process improvement, innovation, and better decision-making, leading to greater success and market advantage. Knowledge is critical to adapting to a rapidly changing business environment where agility and intelligent responses are essential.

Employees may have different knowledge and competencies that they share with others. Some individuals within the organization are willing to share their stored knowledge and competencies and are willing to both contribute and receive knowledge. Knowledge exchange involves a willingness to donate and receive accumulated expertise and is geared towards finding solutions to organizational problems or generating new ideas (Magni et al., 2022, pp. 626–652).

Based on the insights described above, the purpose of the research was to examine how to activate knowledge in organizations and how to utilize the existing knowledge of employees within the organization. As such, we formulated the following hypotheses: H1: The use of existing knowledge significantly influences knowledge exchange. H2: Activation of employee knowledge influences knowledge exchange.

3 Method

In this section, we descriptively present the entire research process and, for better comprehension, illustrate it in Figure 1.

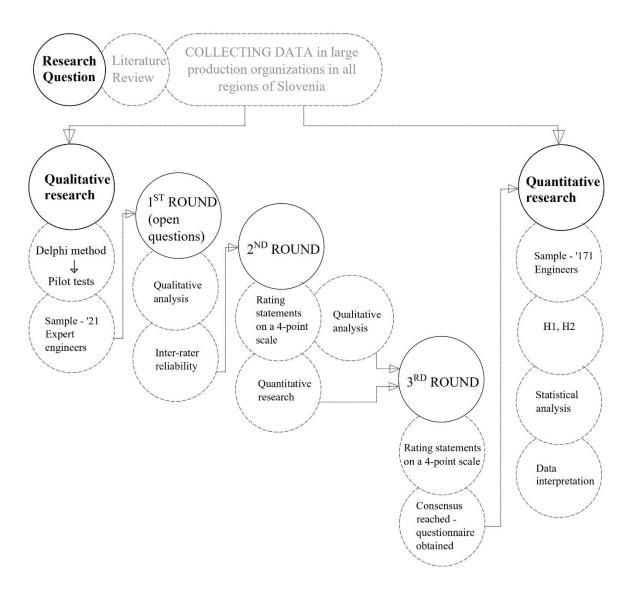


Figure 1. Research model

We began the research process with a thorough review of the existing domestic and foreign literature to create a theoretical framework for our field of research. To better organize the numerous sources and citations, we used the free tool Mendeley, which enabled efficient management of references and citations as well as the documentation of summaries and annotations, which were helpful in the preparation of the paper.

In the first part of our study, we used the Delphi research method. The choice of this method was primarily guided by the aim of gaining insights and comparing the opinions of experts who best understand the conditions in manufacturing organizations. The Delphi method allows the experts to answer the questions separately and iteratively and to refine their opinions based on the results of the previous rounds. According to Linstone and Turoff, this technique is appropriate when subjective judgment and collective intelligence are required to solve problems

and when the knowledge and experience of experts are critical in solving the problem (Linstone & Turoff, 2002, pp. 3–12). The experts who participated in the study were employed in large manufacturing companies in Slovenia. A total of 21 experts who hold key positions in the organizations studied, such as CEOs, HR managers and quality officers, took part in the study. It is important to point out that the insights gained from this sample cannot necessarily be generalized to the entire population; our aim was to gather opinions, suggestions, and viewpoints from experts on this topic.

In the first round, the experts surveyed gave their thoughts, perceptions and viewpoints on the questions posed. Using the Atlas.ti software, we analyzed the answers received and prepared the second round on this basis, again using the Delphi technique. After summarizing the first round, the respondents rated the analyzed statements using a 4-point Likert scale. They were also able to make comments and suggestions. After analyzing the responses again, in the third round the experts reviewed the report from the previous round and confirmed or rejected the consensus. Statements that were rated over 51 % on the ranking scale achieved consensus. The second and third rounds of the research are quantitative by nature. As part of this research, we developed a questionnaire that was distributed to engineers in large manufacturing companies from which the Delphi technique experts participated. The quantitative part of the research was conducted using the online tool 1Ka. The responses were analyzed with MS Excel and the statistical program IBM SPSS 22.0.

As already mentioned, from a methodological point of view, the research approach comprised a literature review, followed by the Delphi method in the first part and the use of quantitative methods in the second part. We approached the combination with different techniques one after the other; the qualitative part with the Delphi method was followed by the quantitative part, whereby we considered both approaches to be of equal value, as their results have the same validity regardless of the approach. In addition to the mixed-methods approach, we sought answers from various data sources in large manufacturing organizations in different regions of Slovenia. In the qualitative part we interviewed experts and in the second, quantitative part we surveyed engineers. Different perspectives on the examined process were provided, and a conclusion was drawn that was agreed upon by those involved in the research process. The combination of answers provided us with a comprehensive overview of the problem under investigation.

The open questionnaire for the Delphi method was tested in a pilot test to check the clarity and comprehensibility of the questions asked. In the first part of the research, we looked for insights from experts, their interpretation of situations and events related to the topic under investigation. We ascertained how the respondents think or act in a particular situation. We realized that our, the researcher's, interpretation of the situations from the qualitative analysis conducted is also essential. Data processing in both parts of the study was done with the assistance of appropriate computer tools, which are more precise than manual methods and

contribute to a higher reliability of the analysis. We verified the reliability with the Cronbach's alpha coefficient and obtained a coefficient value of more than 0.80 in all sections, which indicates a good internal consistency of the questionnaire.

4 Results

1.1 Delphi Research Findings

The experts interviewed come from organizations that generated 34.62 % of total profits in the manufacturing sector in Slovenia in the period under review. Large manufacturing organizations in this sector contributed 25.62 % of the total profit of large organizations in the said sector (AJPES, June 2022). The study involved 21 experts from various Slovenian regions, with the majority of participants coming from the Southeast region. The gender ratio was 66.7 % to 33.3 %, and over 90 % of the experts had a formal education of seventh to ninth level according to the SOK classification.

We present the analyzed responses of the experts who were asked about methods, strategies, and approaches to use and activate the existing knowledge of employees in the organization to promote the willingness of employees to exchange knowledge with each other (Figure 2).

The experts recommended additional education in the organization for the systematic development of individual competencies. Employees should be involved in project groups that enable them to take on additional tasks and responsibilities and thus expand their knowledge in various ways, which they would then share with their colleagues, taking into account the current circumstances. The participants interviewed emphasized that exemplary leadership plays a crucial role in encouraging the use of already acquired knowledge and supporting knowledge exchange. Organizational leadership should be open to new ideas and encourage individual strengths. Expert 3XM9d emphasizes that effective knowledge exchange initiatives can be facilitated through mentorship. At the same time, he offers a concrete approach for activating employee knowledge among colleagues: "/.../ that in the team, multiple generations are united, and experiences intertwine with the 'vigor' and support of new technologies." Respondent 10XM8c adds: "/.../ With workshop methods, we can contribute to the flow of knowledge between generations, also in the direction of mentoring younger to older, as younger employees possess specific knowledge that older employees do not have." Encouraging older employees to participate in mentoring programs can successfully activate knowledge and facilitate effective exchange. This approach promotes knowledge sharing among employees, allowing younger individuals to acquire knowledge through external education, which they can then transfer to colleagues in the future. The expert 7BŽ8d specifies the levers and methods of activating and exchanging knowledge: "Effective leadership, personal and developmental discussions, systematic training, and measuring or evaluating job performance. Work organization with the appropriate allocation of employees to positions, and it is crucial to consider an individual's competency profile." Respondents indicate the need for the formation of generational diverse groups that value individual abilities while encouraging the recognition and strengthening of employees' positive qualities without emphasizing negative attributes. Expert 8XŽ8b adds: "The organization must establish processes or activities and proactively highlight the advantages of each generation of employees, as well as awareness of the need for lifelong learning. If this awareness is high and part of the organizational culture, mixed teams, regardless of age and profession, positively impact the activation and exchange of knowledge." Experts emphasize that informal groups or subgroups form within the organization alongside the formal groups. In these environments, it is easier to recognize the innovative abilities and competencies of individuals while encouraging the expression of their knowledge, without paying attention to possible negative characteristics of the employee. This approach can be an effective way to promote the use, activation and exchange of knowledge within the organization.

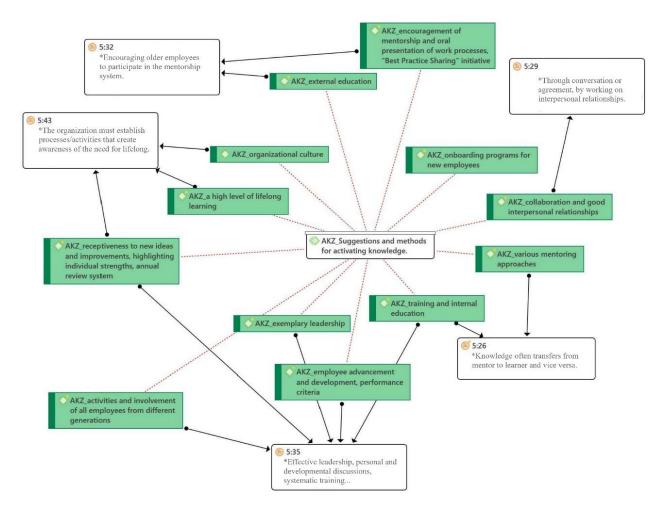


Figure 2. Presentation of suggestions and methods for activating the knowledge of employees in the organization

The experts involved in the study have drawn up guidelines for the effective use of existing employee knowledge within the organization (Figure 3). They recommend the establishment of

a "feasibility study database" in which the following key elements are systematically documented: job-related analyses, analyses of potential errors and their consequences, employee experience, experience of senior members, and an accurate assessment of employees' current level of experience and expertise. At the same time, they propose a continuous documentation system that enables employees to actively use existing knowledge. This includes recording key processes, instructions, and work guidelines, as well as producing structured written reports on the knowledge acquired. Such an approach can be an effective method of systematically capturing, sharing, and improving knowledge within the organization.

When onboarding new employees, they recommend a systematic approach that includes presenting the organization's purpose and vision, clear rules, and work guidelines. In the same step, new employees should be given a practical insight into key work processes. In addition, they suggest setting up a structured mentoring system that facilitates the integration of newcomers into the work environment. Furthermore, they suggest assigning tasks to individual employees that are carefully tailored to their individual development and learning and contribute to a comprehensive and systematic process of introducing new employees to the organization.

Expert 8XZ8b outlines processes for using employees' knowledge: "Employees in the organization are assigned to positions based on their knowledge, experience, and desires, which are challenging enough to naturally trigger sufficient motivation for successful work and the individual's further competence development. We strive for the candidate to match 80% of the skills for the job, while 20% are acquired through performing activities that are part of the job. /.../ The philosophy of continuous improvement guides employees to continually seek opportunities for improvement, using their knowledge as a guide for constant introduction of new and innovative approaches and solutions in all segments of the organization: system, process, product, work methods, interpersonal relationships ... /.../ the possibility of using existing knowledge also through activities: the "innovation for all" model, thematic hackathons, where we all have the opportunity and chance to use and share our knowledge in proposing improvements or simply as listeners to upgrade. /.../ we have a high level of awareness of lifelong learning and a deeply ingrained model of the continuous development of each individual, called the 70-20-10 growth model of the individual. We believe that 70% of new knowledge is gained through performing tasks and duties on the job, 20% through feedback from colleagues, superiors, and coaching and mentoring, and 10% outside the company in professional training."

The experts interviewed reveal how they make effective use of their employees' knowledge. They introduce new employees to the work by presenting the company's vision and work policy and demonstrating the work processes in practice. Through additional education, employees are involved in internal training and mentoring, and are allowed to participate in projects and teamwork. The mentoring system, documentation of procedures, internal training and

performance evaluation are seen by interviewees as key elements in the use and exchange of knowledge. Mixed project teams and the correct placement of employees in appropriate positions contribute to knowledge exchange and competence development. The experts responded that employees actively apply the acquired knowledge in their daily work processes and thus contribute to the overall development of the individual and the organization.

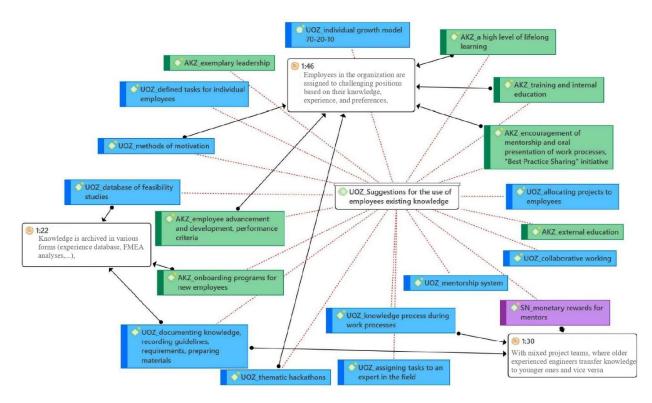


Figure 3. Display of suggestions for the use of existing knowledge of employees

In the second round of the Delphi technique, one expert less participated (n = 20), while in the third round (n = 19), the number of participants decreased by an additional two experts compared to the first round. In the following, we will address the achieved consensus in both mentioned rounds.

The number of proposed strategies to activate employees' individual dimensions of knowledge across different generations in the organization was the smallest in terms of quantity (Table 1). The highest rated agreement, reaching 3.79 (SD = 0.419), was achieved for the proposal: "Collaboration with each other and building good interpersonal relationships." In this context, the lowest level of consensus was comparatively reached for the proposals: "Activities and involvement of all employees" and "High level of lifelong learning."

Table 1. Methods of activating employees' knowledge dimensions to make them willing to exchange their knowledge

| | Second 1 | ound | Third round | |
|---|----------|------|-------------|------|
| Analyzed proposals from the first round | M | SD | M | SD |
| Training, internal and external education. | 3,35 | ,489 | 3,32 | ,478 |
| Employee advancement and development, performance criteria, highlighting individual strengths, receptiveness to improvements. | 3,50 | ,513 | 3,47 | ,513 |
| Organizational culture. | 3,40 | ,503 | 3,42 | ,507 |
| New employee onboarding programs. | 3,50 | ,607 | 3,68 | ,478 |
| Collaboration and good interpersonal relationships. | 3,70 | ,470 | 3,79 | ,419 |
| Promoting mentorship and oral presentation of work processes, and the "Best Practice Sharing" initiative. | 3,55 | ,605 | 3,68 | ,478 |
| Exemplary leadership | 3,40 | ,503 | 3,68 | ,478 |

Suggestions did not achieve high consensus: Activities and involvement of all employees and High level of lifelong learning.

Suggestions for the easier use of employees' existing knowledge in the organization were well received in the second round and achieved a high level of agreement (Table 2). Upon prompting experts for additional suggestions, we received two new statements: "Establishment of a knowledge capture system" and "Encouragement for additional education to raise the overall level of education." In the second measurement round, both statements achieved a level of agreement, but among all suggestions, they had the lowest average value of 3.21 (SD = 0.535). Among the suggestions from the first question, the highest level of agreement in the second round (3.80, SD = 0.523) was achieved with the statement: "Established mentoring systems and mentoring approaches, and knowledge transfer during the work process." In the third round, the highest consensus (3.84, SD = 0.375) was reached for the suggestion: "Program for introducing new employees."

Table 2. Utilization of Existing Employee Knowledge in the Organization

| Second | round | Third round |
|--------|-------|-------------|
| | | |

| Analyzed proposals from the first round | | ar. | | an- |
|---|------|------|------|------|
| | M | SD | M | SD |
| Various Methods of Documenting Knowledge: Written instructions, guidelines, requirements, materials, internal instructions, knowledge bases, feasibility studies. | 3,45 | ,510 | 3,53 | ,612 |
| Established mentoring systems and mentoring approaches for knowledge transfer during the work process. | 3,80 | ,523 | 3,74 | ,452 |
| New employee orientation programs. | 3,55 | ,605 | 3,84 | ,375 |
| Internal and external training systems. | 3,50 | ,513 | 3,63 | ,597 |
| Assigning tasks to employees based on knowledge and competencies. | 3,15 | ,489 | 3,32 | ,478 |
| Feedback during the work process from colleagues to supervisors. | 3,55 | ,510 | 3,79 | ,419 |
| Transparent and exemplary leadership. | 3,55 | ,686 | 3,79 | ,419 |
| Defined tasks for individual employees. | 3,40 | ,503 | 3,26 | ,452 |
| Collaborative work. | 3,50 | ,513 | 3,42 | ,507 |
| "Best practice sharing" initiative. | 3,45 | ,759 | 3,63 | ,597 |
| Establishment of a knowledge capture system. (Additional based on open responses from survey respondents) | | | 3,21 | ,535 |
| Encouragement for additional education to raise the overall level of education. (Additional based on open responses from survey respondents) | | | 3,21 | ,631 |

Suggestions: "Lifelong learning and planned models of continuous individual development and growth." and "The 'innovation for all' model at thematic hackathons" did not achieve a high level of agreement.

Note: M – mean value, SD – standard deviation.

After completing the first part of the research process, we presented the obtained questionnaire for evaluation to the engineers in the studied organizations. Subsequently, we present the results of the second part of the research.

1.2 Results of the Quantitative Research

1.2.1 Descriptive Statistics

When evaluating proposals for individual activation and readiness for knowledge exchange, it is observed that comparatively speaking, average ratings range from 3.00 and above on a 4-point rating scale (Figure 4). The lowest average ratings were attributed to the new employee onboarding program. "Collaboration with each other and establishing good interpersonal relationships" is the highest-rated proposal, averaging 3.32 (SD = 0.68).

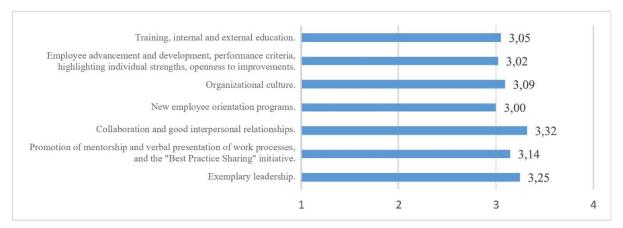


Figure 4. Activation and readiness for knowledge exchange

Proposals regarding the use of existing knowledge in the organization were rated on a 4-point scale, and average ratings ranged from 2.81 to 3.21 (Figure 5). The highest average, rated at 3.26 (SD = 0.66), is for the proposal "Collaborative work." Following are proposals, a larger portion of which is rated only 0.01, 0.02, or 0.03 less than the highest average rating. The lowest-rated proposal is "Establishment of a knowledge capture system" with an average rating of 2.81 (SD = 0.77).

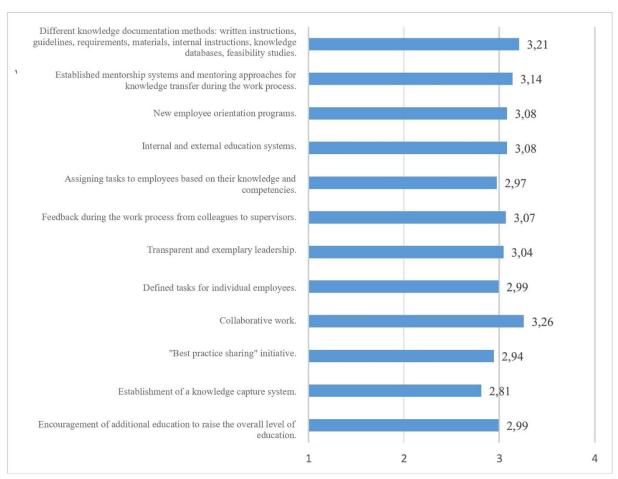


Figure 5. Existing use of knowledge

1.2.2 Results of Regression Analysis

With the mentioned analysis, we examined the potential impact of the use of existing knowledge on knowledge exchange.

Table 3. Summary of Regression Model for the Variable: Existing Knowledge

| | | | | Std. | Std. Change Statistics | | | | | |
|------|-------|----------|----------|----------|------------------------|----------|-----|-----|-----------------|----------------|
| | | | | Errof of | | | | | | _ |
| | | | Adjusted | the | Square R | | | | | Durbin- |
| Mode | l R | R Square | R Sguare | estimate | change | F change | df1 | df2 | <i>p</i> -value | Watson |
| 1 | .372a | .138 | .132 | ,34520 | .138 | 21.638 | 1 | 135 | < 0.001 | 2.277 |

a. Independent Variable: (constant), Existing Knowledge

Results indicate (Table 3) that the variable of existing knowledge has a statistically significant impact on knowledge exchange, as the p-value is less than 0.05 (p < 0.001). The coefficient of determination, amounting to 0.132, suggests that 13.2 % of the variability in the dependent variable (knowledge exchange) can be explained by the independent variable (existing knowledge). The effect is statistically significant ($f^2 = 0.160$), exceeding the threshold of 0.15, indicating a moderate effect. Errors in the regression model fall within an acceptable range between 1.5 and 2.5 (Table 3). The Durbin-Watson test was employed to check autocorrelations of the model's residuals, revealing that the residuals are independent, confirming the validity of the obtained model; the Durbin-Watson test value approaches the ideal value of 2 (DW = 2.277) and deviates from the extreme values of 0 and 4.

Table 4. Coefficient predicting knowledge exchange through the use of existing knowledge.

| | Unstandardized Coefficients Standardized Coefficients | | | | |
|--------------------|---|------------|-------|--------|-----------------|
| Model | В | Std. Error | Beta | t | <i>p</i> -value |
| 1 (Constant) | 2,487 | 0,183 | | 13,623 | <0,001 |
| Existing Knowledge | 0,271 | 0,058 | 0,372 | 4,652 | <0,001 |

a. Dependent Variable: Knowledge Exchange

The unstandardized positive coefficient (B = 0.271) informs us about the change in the dependent variable when the independent variable is increased by 1 unit (Table 4). In this case, the independent variable representing existing knowledge shows a positive impact on the dependent variable of knowledge exchange. From linear regression, we deduce that there is a linear relationship between the variables of existing knowledge and knowledge exchange, as an increase of 1 unit in existing knowledge corresponds to a 0.271 (Table 4) increase in knowledge exchange. This relationship is statistically significant, as the significance value (p-value) is less than the threshold of 0.05 (p < 0.001). The adjusted coefficient of determination, R^2 , indicates that the model explains 13.8 % of the total variance in knowledge exchange with the variability of the independent variable, existing knowledge. The quality of the regression model was assessed using the F-test, where the p-value (p < 0.001) confirms the model's good quality.

b. Dependent Variable: Knowledge Exchange

Table 5. Summary of the regression model for the variable: knowledge activation

| | | | | Std. | Std. Change Statistics | | | | _ | |
|--------|-------|----------|----------|----------|------------------------|----------|-----|-----|-----------------|--------|
| | | | | Errof of | | | | | | |
| | | | Adjusted | the | Square R | | | | | Durbin |
| Model2 | R | R Square | R Sguare | estimate | change | F change | df1 | df2 | <i>p</i> -value | Watson |
| 1 | .278a | ,077 | ,070 | ,35718 | ,077 | 11,306 | 1 | 135 | < 0,001 | 2,276 |

a. Independent variable: (constant), Knowledge activation

The results of the analysis show that the knowledge activation variable has a significant influence on knowledge exchange, as the p-value is less than 0.05 (p < 0.001). The determination coefficient, amounting to 0.070 indicates that approximately 7 % of the variability of the dependent variable (knowledge exchange) can be explained by the independent variable (knowledge activation). Despite the small effect size ($f^2 = 0.083$), which according to the guidelines is below the threshold value of 0.15, the effect is still statistically significant. The errors in the regression model are in an acceptable range between 1.5 and 2.5 (Table 5). The autocorrelations of the residuals of the model were tested with the Durbin-Watson test, and it was found that the residuals are independent. This independence is crucial for the validity of the model obtained. The Durbin-Watson test value approximates the ideal value of 2 (DW = 2.276) and is considered satisfactory, as it is away from the extreme values of 0 and 4.

Table 6. Predictive coefficients for knowledge exchange through knowledge activation.

| | Unstandardized Co | pefficients | Standardized Coefficients | | |
|----------------------|-------------------|-------------|------------------------------|--------|---------|
| Model | В | Std. Error | Beta | t | p-value |
| 2 (Constant) | 2,692 | 0,191 | | 14,098 | <0,001 |
| Knowledge activation | 0,204 | 0,061 | 0,278 | 3,362 | <0,001 |

a. Dependent Variable: Knowledge Exchange

The unstandardized positive coefficient (B = 0.204) illustrates by how much the dependent variable changes when the independent variable is increased by 1 unit (Table 6). In this context, knowledge activation, as the independent variable, shows a positive influence on knowledge exchange. Linear regression reveals a linear relationship between the variables of knowledge activation and knowledge exchange, as an increase of 1 unit in knowledge activation results in a 0.204 (Table 6) increase in knowledge exchange. This relationship is statistically significant, as the p-value (0.001) surpasses the threshold of 0.05. The adjusted determination coefficient R^2 suggests that the model explains approximately 7 % of the total variance in knowledge exchange with the variability of the independent variable, knowledge activation. The quality of the regression model was assessed using an F-test, where the p-value (0.001) confirms that the model's quality is good.

b. Dependent variable: Knowledge exchange

5 Discussion

We asked experts in large manufacturing organizations how to enable employees to use existing knowledge and activate the dimension of employees' knowledge so that they are willing to exchange or share it with others.

For the effective use of knowledge in an organization, it is crucial to document and record it appropriately. Stakeholders pointed out the need to document instructions as they facilitate the repetition of tasks and improvement of processes, document policies as they provide guidance and best practices for consistent and high-quality work, and create materials, manuals, and collections of experiences as they are valuable sources of knowledge for employees. Feasibility studies also help in decision-making on projects and initiatives. Employee knowledge is effectively leveraged through mentoring systems, onboarding programs for new employees, and internal and external education. Assigning projects based on knowledge and competencies encourages motivation to learn and apply knowledge. Knowledge is best utilized when experts work in the areas in which they are most competent. Various models for personal development, promotion systems, and innovation approaches, such as hackathons, create opportunities for employees to contribute their knowledge, help shape improvements, and continuously develop themselves. Knowledge is acquired and upgraded in the workplace, during task execution, and through feedback from colleagues and coaching. This enriches organizational knowledge and enhances the efficiency and competitiveness of the organization.

In the organization, there is a need to activate various dimensions of employees' knowledge, especially across different generations. According to the interviewees, it is crucial to develop and expand this knowledge through additional education, participation in project teams, and the assignment of additional tasks. In this way, employees can expand their knowledge and share it with colleagues. An important factor in encouraging knowledge exchange is exemplary leadership that supports new ideas and emphasizes the strengths of everyone. Mentoring has proven to be an effective process for knowledge exchange, which should go both ways - from older to younger employees and vice versa. It is important that the organization recognizes the importance of each individual employee and encourages lifelong learning, as this has a positive impact on knowledge exchange in the workplace. Collaboration among employees, good interpersonal relationships, and open communication are key factors for successful knowledge exchange. In the organization, the involvement of all employees in mixed-generation groups is recommended to promote interest in knowledge sharing. In addition, internal training, workshops, and performance appraisals are highlighted as measures that contribute to the flow of knowledge within the organization.

According to the interviewees', existing knowledge is used by the employees by having experienced employees explain the work processes verbally to the newly hired employees and demonstrate them practically. This enables them to carry out their tasks effectively without the presence of experienced colleagues. The promotion of mentorship with the assignment of a

suitable mentor facilitates the transfer of knowledge, and young employees should be given the opportunity to document the knowledge they have acquired through external training and pass it on to their colleagues. According to the interviewees, knowledge is archived in experience databases and feasibility studies and can be reused multiple times.

Within the organization, an employee's willingness, or assistance may be expected, and there is a need for appropriate assignment of employees to appropriate positions, considering individual competencies. Development discussions, effective leadership and systematic training, measurement and evaluation of job performance contribute to the activation of employee knowledge.

Based on the questionnaire created in the first part of the study, the second part focused on quantitative analysis. We measured proposals and factors for current use, activation and knowledge exchange among employees.

The engineers rated the proposal "Collaborative Working" the highest in terms of the use of existing knowledge in the organization. All suggestions were rated relatively similarly, ranging from 2.81 to 3.26 (Figure 5). The proposal "Various ways of documenting knowledge: written instructions, guidelines, requirements, materials, internal instructions, knowledge databases, feasibility studies" was rated 0.05 lower than the highest rated proposal.

Respondents rated the suggestions according to individual activation and willingness to exchange knowledge. In this section, too, all proposals were rated relatively similarly and ranged between 3.00 and 3.32 (Figure 4). Respondents rated the proposal "Collaboration and good interpersonal relationships" the highest.

In modern organizations, it is recognized that employees play a crucial role, and management leverages and values their competencies. The experts involved in the research emphasized the importance of employee knowledge, which must be properly documented and reused. Tiwari (2022, pp. 1–4) emphasizes that employees' knowledge, skills, and abilities, as well as their ideas and motivation to make high-quality decisions, are key elements of knowledge management, especially in the context of increasing technological complexity. At the same time, he points to the need to systematically collect, localize, document, capture, and share knowledge and treat it as a strategic asset. This perspective arises from the need to handle knowledge properly, with the goal of harnessing the potential of knowledge in the organization (Tiwari, 2022, pp. 1–4). Experts in research emphasize that the full utilization of knowledge is achieved when an expert is assigned to projects that match their greatest expertise. The importance of assigning projects based on knowledge and competencies is further emphasized by lifelong learning and the established system of continuous development and growth of the individual. Such an approach encourages motivation to actively use knowledge and continuous learning. Arsawan et al. (2022, pp. 405–428) confirm in their findings that knowledge exchange

has a significant impact on the organization's innovation culture, business performance and sustainable competitive advantage (Arsawan et al., 2022, pp. 405–428).

We examined the impact of knowledge activation on knowledge exchange among engineers in manufacturing organizations (Hypothesis 1). The research results show that the knowledge activation variable is statistically significant, which means that it has an impact on knowledge exchange. We explained that knowledge activation contributes to 7 % of the variability in knowledge exchange, which we confirmed, thus supporting hypothesis 1. However, the identified coefficient is lower compared to the use of existing knowledge, indicating that activation has a lower percentage influence on knowledge exchange. The unstandardized coefficient B in the table provides information on the strength of the influence of the knowledge activation variable on knowledge exchange. A higher value indicates a greater influence of the independent variable on the dependent variable, whereby knowledge activation is positive and has a positive impact. Nevertheless, the impact is smaller compared to the use of existing knowledge. In summary, it can be said that the knowledge activation variable is present in the organization and has a positive impact on knowledge exchange. Although it explains only 7 % of the variability in knowledge exchange ($R^2 = 0.077$), our study confirms the positive influence of the knowledge activation factor on knowledge exchange among engineers in manufacturing organizations.

We focused on analyzing the impact of the use of existing knowledge on knowledge exchange among engineers in manufacturing organizations (Hypothesis 2). The results show that the variable use of existing knowledge has a statistically significant impact on knowledge exchange. Using the coefficient of determination, we explained that the use of existing knowledge contributes to 13.2 % of the variability of knowledge exchange, which we confirmed, thus supporting hypothesis 2. The unstandardized coefficient B, as shown in the table, represents the strength of the impact of the variable use of existing knowledge on knowledge exchange. A higher value indicates a stronger influence of the independent variable on the dependent variable. The analysis shows that the use of existing knowledge has a positive impact on knowledge exchange. In summary, it can be said that the variable Use of existing knowledge is active in the organization and has a positive influence on the knowledge exchange process. Although it explains only 13.2 % of the variability in knowledge exchange ($R^2 = 0.132$), our study confirms the positive influence of the factor of using existing knowledge on knowledge exchange among engineers in manufacturing organizations.

Based on the research results, we found a statistically significant impact of the use of existing knowledge and knowledge activation on knowledge exchange among engineers in manufacturing organizations. We confirmed a 13.2 % influence of knowledge use on knowledge activation, while we found a 7 % impact on knowledge exchange. Both variables are positively correlated with the knowledge exchange process. We recommend the

implementation of strategies such as mentoring, project collaboration, onboarding programs and internal education to promote effective knowledge exchange in organizations.

6 Conclusion

In the first part of the study, we received ways and suggestions for knowledge activation and proposals for the use of existing knowledge in the organization. Various methods of knowledge documentation contribute to the use of existing knowledge, especially onboarding programs for new employees, written instructions, guidelines, requirements, materials, internal instructions, knowledge databases, feasibility studies, and, above all, collaboration in the work process. Respondents indicated that encouraging all employees to express ideas, opinions, perspectives, experiences, thoughts, beliefs, concerns, opportunities for improvement, etc., helps to transform individuals' tacit knowledge into explicit knowledge that can be used repeatedly.

When asked about knowledge activation in the company, respondents mentioned various strategies for promoting knowledge exchange among employees. They emphasized that knowledge exchange takes place primarily through mentoring processes, collaboration on projects, orientation programs, and internal education. Establishing a culture that encourages knowledge exchange and recognizing and developing individual competencies are also crucial. Teams that include members from different generations and professional fields are highlighted as essential for effective use and exchange.

In the second part of the research process, we conducted a regression analysis to examine the influence of the variables on knowledge exchange for H1 and H2. The results are shown in Tables 1 and 2. For hypothesis H1, we found a statistically significant impact of existing knowledge on knowledge exchange among engineers in manufacturing organizations, which is 13.2%. The use of existing knowledge is shown to be a positive factor for knowledge exchange. We assessed the quality of the regression model using an F-test and confirmed good model quality with a very low p-value (p < 0.001). The effect size, expressed as (0.160), is considered moderate and achieves statistical significance, confirming the hypothesis. The Durbin-Watson test for autocorrelation of the residuals showed that the residuals are independent, which ensures the validity of the model. The linear relationship between the variables use of existing knowledge and knowledge exchange is confirmed, as each unit of use of existing knowledge corresponds to an increase in knowledge exchange of 0.271 and reaches statistical significance (p < 0.001).

In the second hypothesis (H2), we found a statistically significant effect of knowledge activation on knowledge exchange among engineers in manufacturing organizations, amounting to 7 %. The knowledge activation variable has a positive effect on knowledge exchange. We assessed the quality of the regression model using an F-test and found good model quality, as the p-value was less than 0.001. The effect size is small ($f^2 = 0.070$) and is below the threshold of 0.15 recommended by Cohen (2013, p. 5). Despite the small effect size,

the effect is statistically significant, so the hypothesis is confirmed. We also checked the autocorrelations of the residuals of the model using the Durbin-Watson test and confirmed that the residuals are independent, ensuring the validity of the model. The linear relationship between the knowledge activation of the variables and knowledge exchange is statistically significant, as each unit of knowledge activation is associated with a 0.204 increase in knowledge exchange (p < 0.001).

Based on the research results obtained, we can conclude that effective leadership includes creating a safe working environment, exemplary leadership and the introduction of mentoring and reverse mentoring systems. We believe that management must continually adapt its policies and practices to the changes that best meet the individual needs of employees. The empirical contribution shows a statistically significant use of existing knowledge and knowledge activation in knowledge exchange among engineers in selected organizations in the Republic of Slovenia. The results of our research provide owners, managers, and other professionals in companies, such as HR or HRM departments, with concrete evidence for the design of measures and strategies for knowledge exchange among their employees.

The results of the study show that knowledge activation and the use of existing knowledge have a significant impact on knowledge exchange among engineers in manufacturing organizations. Knowledge activation explains 7 % of the variability, while the use of existing knowledge contributes 13.2 %. Both variables have a positive effect on knowledge exchange. The research findings provide practical guidance for the design of knowledge exchange policies and strategies in organizations. We have identified and listed specific strategies for the activation of knowledge and the use of existing knowledge in organizations. Based on the results, it is recommended to set up mentoring procedures, participate in projects, and conduct onboarding programs and internal education to promote knowledge exchange. We also emphasized the importance of creating a work environment that encourages collaboration and the expression of ideas. These guidelines are valuable for policymakers as they provide practical tools for effective knowledge management in organizations, especially for owners, managers, and human resource management professionals.

During our study, we encountered a number of limitations and assumptions. One limitation was the geographical restriction to one region in one country, which could affect the generalizability of the results. Also, considering the criteria of the Companies Act (ZGD), we focused only on large manufacturing companies, which could limit the generalizability of our results to other industries. The limited participation and responsiveness of study participants should also be noted, reflecting the fast-paced dynamics of the work environment and the impact of global events on organizational operations.

Given the noted limitations and assumptions in our study, we suggest that future researchers expand the scope of their studies to multiple geographic regions to increase the generalizability

of the results. It is also recommended to include a diverse sample of organizations from different sectors, not limited to large manufacturing firms, to gain a more comprehensive insight into the dynamics of knowledge exchange. Researchers could consider additional methods in future studies to increase the responsiveness of participants and focus on observing the long-term impacts of global events on organizations. By using these approaches, researchers could lead to a broader understanding and application of strategies, the use of existing knowledge.

References

- Ahmad, F., & Karim, M. (2019). Impacts of knowledge sharing: A review and directions for future research. *Journal of Workplace Learning*, 31(3), 207–230. doi: org/10.1108/JWL-07-2018-0096
- 2. AJPES, Agencija Republike Slovenije za javnopravne evidence in storitve. (2022, junij). *Informacija o poslovanju gospodarskih družb v Republiki Sloveniji v letu 2021*. Acquired at: https://www.ajpes.si/doc/LP/Informacije/Informacija_LP_GD_zadruge_2021.pdf
- 3. Arsawan, I.W.E., Koval, V., Rajiani, I., Rustiarini, N.W., Supartha, W.G., & Suryantini, N.P.S. (2022). Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *International Journal of Productivity and Performance Management*, 71(2), 405–428. doi: org/10.1108/IJPPM-04-2020-0192
- 4. Bock, Z., Kim Y.G., Lee, K., Lee, J.N. & L. Zmud. (2005). Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate. *MIS Quarterly*, 29(1), 87. doi:org/10. 2307/25148669
- 5. Božič, M., Gorenc Zoran, A., & Jevšček, M. (2021). Industry 4.0 and Proactive Works Council Members. *Data*, 6(5), 1–17. doi: 10.3390/data6050047
- 6. Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2022). Knowledge sharing in international markets for product and process innovation: Moderating role of firm's absorptive capacity. *International Marketing Review*, 39(3), 706–733. doi: org/10.1108/IMR-11-2020-0261
- 7. Cohen, J. (2013). Statistical power analysis for the behavioral sciences. Routledge.
- 8. Deguchi, A., Hirai, C., Matsuoka, H., Nakano, T., Oshima, K., Tai, M., & Tani, S. (2020). What is society 5.0. *Society*, 5(0), 1–24.
- 9. Deng, P., & Lu, H. (2022). Transnational knowledge transfers or indigenous knowledge transfer: Which channel has more benefits for China's high-tech enterprises? *European Journal of Innovation Management*, 25(2), 433–453. doi: org/10. 1108/EJIM-07-2020-0269
- 10. Imamoglu, S. Z., Ince, H., Turkcan, H., & Atakay, B. (2019). The effect of organizational justice and organizational commitment on knowledge sharing and firm performance. *Procedia computer science*, *158*, 899–906. doi: org/10.1016/j.procs.2019.09.129
- 11. Islam, T., Ahmad, S., Kaleem, A., & Mahmood, K. (2020). Abusive supervision and knowledge sharing: Moderating role of Islamic work ethic and learning goal orientation. *Management Decision*, 59(2), 205–222.
- 12. Kozhakhmet, S., & Nazri, M. (2017). Governing knowledge sharing behaviour in post-Soviet Kazakhstan. *Journal of Workplace Learning*, 29(3), 150–164 doi: org/10.1108/JWL-06-2016-0053

- 13. Lam, A. (2011). Innovative organisations: Structure, learning, and adaptation. *In Paper presented at the DIME Final Conference* 6(8), 162–176. Acquired at: https://pdfs.semanticscholar.org/40f9/6a8deddd30315b40d4dce9fd01ba0ba170c1.pdf
- 14. Linstone, H. A., (Ed.) & Turoff, M. (Ed.). (2002). *The Delphi method: Techniques and applications*. Acquired at: http://www.is.njit.edu/pubs/ delphibook/
- 15. Magni, D., Chierici, R., Fait, M., & Lefebvre, K. (2022). A network model approach to enhance knowledge sharing for internationalization readiness of SMEs. *International Marketing Review*, 39(3), 626–652. doi: org/10.1108/IMR-03-2021-0110
- 16. Mehmood, M. S., Jian, Z., Akram, U., Akram, Z., & Tanveer, Y. (2022). Entrepreneural leadership and team creativity: The role of team psychological safety and knowledge sharing. *Personnel Review*, *51*(9), 2404–2425.
- 17. Molek, N., De Jager, J. E., & Pucelj, M. (2023). Hero Culture and Silo Mentality: a Systematic Literature Review. *Journal of Universal Excellence*, 12(1), 1–17. doi: 10.37886/ruo.2023.001
- 18. Muhammed, S., & Zaim, H. (2020). Peer knowledge sharing and organizational performance: the role of leadership support and knowledge management success. *Journal of Knowledge Management*, 24(10), 2455–2489. doi: org/10.1108/JKM-03-2020-0227
- 19. Nguyen, T. -M., Siri, N. S., & Malik, A. (2021). Multilevel influences on individual knowledge sharing behaviours: The moderating effects of knowledge sharing opportunity and collectivism. *Journal of Knowledge Management*, 26(1), 70–87. doi:org/10.1108/ JKM-01-2021-0009
- 20. Nonaka, I., Takeuchi, H. (1995). *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York.
- 21. Rafique, M., Hameed, S., & Agha, M. H. (2018). Impact of knowledge sharing, learning adaptability and organizational commitment on absorptive capacity in pharmaceutical firms based in Pakistan. *Journal of Knowledge Management*, 22(1), 44–56. doi: org/10.1108/JKM-04-2017-0132
- 22. Schneider, P. (2018). Managerial challenges of Industry 4.0: an empirically backed research agenda for a nascent field. *Review of Managerial Science*, *12*(3), 803–848. doi: org/10.1007/s11846-018-0283-2
- 23. Singh, S. K., Gupta, S., Busso, D., & Kamboj, S. (2021). Top management knowledge value, knowledge sharing practices, open innovation and organizational performance. *Journal of Business Research*, 128, 788–798.
- 24. Sisson, P. & Ryan, J. J. (2017). A Knowledge Concept Map: Structured Concept analysis from Systematic Literature Review. *Jornal of Entrepreneurship, Management and Innovation*, 13(3), 29–69. doi: 10.7341/20171332
- 25. Son, T. T., Phong, L. B., & Loan, B. T. T. *Transformational Leadership and Knowledge Sharing: Determinants of Firm's Operational and Financial Performance*. (2020). SAGE Open, 2020(2), 1–13. April-June. doi: org/10.1177/215824402092742
- 26. Tiwari, S. P. (2022a). Knowledge Management Strategies and Emerging Technologies An Overview of the Underpinning Concepts. *International Journal of Innovative Technologies in Economy*, *1*(37), 1–4. doi: org/10.31435/rsglobal_ijite/30032022/7791
- 27. Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, *39*(10), 8899–8908. doi: org/10. 1016/j.eswa.2012.02.017

- 28. Wiig Karl M. (1993). Knowledge management Foundations. Thinking about Thinking. How People and Organizations Create, Represent, and Use Knowledge. Arlington, Texas: Schema Press
- 29. Yeboah, A. (2023). Knowledge sharing in organization: A systematic review. *Cogent Business & Management*, *10*(1), 2195027. doi: org/10.1080/23311975.2023.2195027

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Povzetek:

kontekstu proizvodnih organizacij.

Aktivacija, uporaba in izmenjava obstoječega znanja zaposlenih v organizacijah

Raziskovalno vprašanje (RV): Sprašujemo se, kako v proučevanih organizacijah omogočiti uporabo obstoječega znanja zaposlenih in na kakšen način aktivirati zaposlenčeve različne dimenzije znanja v organizaciji, s ciljem spodbujanja pripravljenosti zaposlenih za medsebojno izmenjavo znanja.

Namen: Namen je odkriti načine uporabe obstoječega zaposlenčevega znanja in načine aktivacije dimenzij znanja zaposlenih v proučevanih organizacijah.

Metoda: Na osnovi teoretičnega pregleda literature pričnemo protokol raziskave v delfski tehniki, ko strokovnjaki odgovorijo na odprta vprašanja. Proces se zaključi v doseženem konsenzu tretjega kroga. Nastali vprašalnik se razdeli med inženirje vseh starostnih skupin, delujočih v velikih proizvodnih organizacijah.

Rezultati: Kključni dejavniki so za aktivacijo znanja sodelovalnost v delovnem procesu, mentoriranje, sodelovanje na projektih, uvajalni programi in notranja izobraževanja. Razvoj kulture, ki spodbuja delitev znanja, ter prepoznavanje in razvoj kompetenc posameznikov, še posebej v mešanih timih glede na starost in stroko, sta ključna za uspešno izmenjavo in uporabo znanja. Priporočeno je spodbujanje vseživljenjskega učenja, vključevanje v programe mentorstva ter vzpostavitev ustreznih procesov za učinkovito izmenjavo znanja, kar okrepi organizacijsko kulturo. V drugem delu raziskave smo potrdili pomemben vpliv uporabe obstoječega znanja (H1) na izmenjavo znanja med inženirji v proizvodnih organizacijah, pri čemer smo opazili 13,2-odstotno pozitivno spremembo, kar smo dodatno potrdili z F-testom in močjo učinka ($f^2 = 0,160$). Prav tako smo statistično potrdili pomen aktivacije znanja (H2), čeprav s sorazmerno majhno močjo učinka ($f^2 = 0,070$), kar smo ovrednotili z ustreznimi statističnimi testi. Empirični prispevek razkriva, da ima uporaba obstoječega znanja in aktivacija znanja pomemben vpliv na izmenjavo znanja med inženirji v izbranih organizacijah v Sloveniji. Konkretno smo identificirali, da aktivacija znanja

Organizacija: Vpliv raziskave na menedžerje in organizacijo je v tem, da jim nudi konkretna vodila za učinkovito upravljanje z znanjem v organizacijah. Menedžerji lahko na podlagi rezultatov oblikujejo politike in strategije izmenjave znanja, kar bo okrepilo organizacijsko kulturo. Raziskava spodbuja vzpostavitev postopkov mentoriranja, sodelovanje na projektih, programe uvajanja in interna izobraževanja za spodbujanje izmenjave znanja, kar je ključno za učinkovito upravljanje z

pojasni 7 % variabilnosti, medtem ko uporaba obstoječega znanja prispeva 13,2 % k izmenjavi znanja. Obe obravnavani spremenljivki izkazujeta pozitiven učinek na proces izmenjave znanja v

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zaposlenimi. Rezultati raziskave nudijo konkretne usmeritve za oblikovanje politik in strategij izmenjave znanja v podjetjih.

Družba: Vpliv raziskave na družbo se odraža v prispevku k boljšemu upravljanju znanja v organizacijah, kar lahko vodi v izboljšano delovno okolje in uspešnejše poslovanje. S poudarkom na sodelovanju, mentorstvu in izmenjavi znanja se spodbuja tudi vseživljenjsko učenje ter razvoj kompetenc posameznikov. To lahko pozitivno vpliva na inovacije, produktivnost in konkurenčnost organizacij, kar ima dolgoročne pozitivne učinke na družbo.

Originalnost: Vrednsot raziskave se kaže v kombinaciji aktivacije znanja in uporabe obstoječega znanja ter poudarku na konkretnih strategijah za izmenjavo znanja v kontekstu inženirskih proizvodnih organizacij v Sloveniji. Raziskava prispeva k širšemu razumevanju dinamike izmenjave znanja in omogoča praktične smernice za oblikovalce politik, lastnike in menedžerje organizacij.

Omejitve/nadaljnje raziskovanje: Priporočamo, da nadaljnji raziskovalci razširijo geografski obseg svojih študij za povečanje splošnosti rezultatov. Prav tako predlagamo vključitev raznolikega vzorca organizacij iz različnih sektorjev, ne le omejenih na velike izdelovalne družbe, kar bi omogočilo bolj celovit vpogled v dinamiko izmenjave znanja. Dodatne metode za povečanje odzivnosti udeležencev in osredotočanje na spremljanje dolgoročnih vplivov globalnih dogodkov na organizacije bi lahko koristno prispevale k širšemu razumevanju strategij uporabe obstoječega znanja, aktivacije znanja in izmenjave znanja v organizacijah.

Ključne besede: znanje, aktivacija znanja, uporaba znanja, obstoječe znanje, izmenjava, organizacija, zaposleni.

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