

Identifying Organizational Learning Barriers in Knowledge-Based Companies

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ABSTRACT

This study aimed to identify the barriers to organizational learning within knowledge-based companies. Utilizing a qualitative approach, the research employed thematic analysis to delve into the managers' perspectives of knowledge-based firms situated in Qom Science and Technology Park and university professors specializing in organizational learning. Semi-structured interviews were conducted with purposively selected participants. Data was collected through both library research and field studies. The findings revealed three primary barriers to organizational learning: knowledge creation, knowledge sharing, and knowledge-based performance. Notably, the study indicated that barriers to knowledge sharing were significantly more prevalent across the examined organizations. Key obstacles included ineffective communication among organizational members, resistance to learning, traditional managerial mindsets, and inadequate financial support. Additionally, challenges related to knowledge creation and knowledge-based performance encompassed outdated systems, flawed analysis, and a lack of transparency for employees. Based on the research outcomes, several practical recommendations are proposed to address these barriers. These include implementing effective training programs, enhancing communication systems, and providing financial support for learning initiatives. Given the potential of knowledge-based companies located in Qom Science and Technology Park, it is anticipated that overcoming these obstacles will foster greater growth and success in innovation, research, and development.

KEYWORDS

Knowledge Creation, Knowledge Economy, Knowledge Sharing, Knowledge-Based Companies, Knowledge-Based Performance, Organizational Learning Barriers, Organizational Learning, Science and Technology Park.

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Introduction

Knowledge-based firms, where intellectual capital is the primary driver of value creation, heavily rely on organizational learning to maintain their competitive edge (Sunnemark et al., 2024). However, several barriers hinder effective organizational learning across the three critical dimensions: knowledge creation, knowledge sharing, and knowledge application. These barriers can significantly impede an organization's ability to innovate, adapt to change, and achieve sustainable growth (Pasieczny & Rosiak, 2022).

Knowledge creation, the first step in the organizational learning cycle, is often hindered by various factors. A lack of a conducive organizational culture that stifles creativity, discourages risk-taking, and rewards conformity can impede the generation of new ideas and insights. Additionally, inadequate resources allocated to research and development can limit the organization's capacity to explore new knowledge frontiers. Furthermore, cognitive biases such as confirmation bias and groupthink can distort decision-making processes and hinder the emergence of innovative thinking (Massimo & Nora, 2022).

Once knowledge is created, it must be effectively shared across the organization to maximize its value. However, several barriers can impede knowledge sharing. Organizational silos can create information silos, preventing knowledge from flowing freely between different departments and functions. Lack of trust among employees can hinder open communication and the willingness to share knowledge. Additionally, time constraints and workload pressures can limit individuals' ability to participate in knowledge-sharing activities (Scipioni et al., 2021).

Even when knowledge is created and shared, it may not be effectively applied to improve organizational performance. Resistance to change can hinder the adoption of new ideas and practices. Lack of leadership support can undermine efforts to implement knowledge-based initiatives. Furthermore, inadequate infrastructure and systems can impede the transfer and application of knowledge (Shahmoradi et al., 2017).

By understanding the multifaceted nature of these barriers, organizations can develop targeted strategies to overcome them and foster a learning culture. This may involve creating a supportive organizational culture, investing in training and development, implementing effective knowledge management systems, and encouraging collaboration and knowledge sharing (Pasieczny & Rosiak, 2022). By addressing these barriers, knowledge-based firms can unlock the full potential of their intellectual capital and achieve sustainable competitive advantage (Nadason et al., 2017).

The necessity of the present research can be summarized in its results as follows:

- The results of this research can help managers' develop educational frameworks to improve organizational learning.
- The results of this research can assist in identifying the barriers to organizational learning in knowledge-based companies.

This research has focused on identifying the barriers to organizational learning in knowledge-based companies affiliated with the Science and Technology Park. The findings of this study can provide an operational framework for improving organizational

learning processes and assist managers in enhancing their capabilities and competitive sustainability. This research's main question is: What are the barriers to organizational learning in knowledge-based companies? Therefore, given the problem and the research gap in this area, this study aims to utilize existing theoretical and empirical literature to identify the barriers to organizational learning in knowledge-based companies.

Literature Review

In today's fast-paced and ever-changing world, organizations face complex and unpredictable environments, necessitating precise decision-making and rapid adaptation. Organizations that establish the capability for continuous learning and adaptation based on acquired knowledge can respond effectively to environmental changes and ensure sustainable competitive advantage. Organizational learning, a cornerstone of organizational management in the 1990s, plays a crucial role in enhancing productivity, innovation, and organizational performance (Nonaka, 1994). Organizational learning and knowledge management are key concepts in advancing competitiveness and innovation in knowledge-based companies. However, organizational learning processes face various barriers and challenges that can hinder the effective transfer of knowledge and learning within organizations (Massimo & Nora, 2022).

De Moraes and de Souza (2021) discussed barriers to organizational learning in software companies, including challenges in knowledge sharing and the integration of tacit and explicit knowledge. They proposed improving organizational memory and fostering collaboration as solutions to these challenges.

Chatterjee (2014) emphasized barriers to organizational learning in knowledge-based companies, pointing to bureaucratic and hierarchical structures that hinder knowledge creation, distribution, and transfer. Additionally, the implicit nature of knowledge and the challenges associated with managing tacit knowledge were highlighted. This research suggested that organizations should establish lateral knowledge-sharing flows to overcome these barriers and propose new tools for managing tacit knowledge.

Gani and Moussa (2017) explored barriers to learning in knowledge-based organizations in the Béjaïa region of Algeria. Their study revealed that environmental stability negatively impacts learning through exploration, while there is a positive correlation between environmental stability and learning through exploitation. The research demonstrated that environmental barriers could negatively affect organizational learning processes using survey methods and statistical analysis.

Almeida and Soares (2015) focused on organizational learning challenges in project-based organizations. They identified issues such as inadequate information architecture, weak collaborative culture, and the lack of information management strategies as factors hindering learning and knowledge sharing in such organizations. Their study proposed mechanisms for improving knowledge sharing and emphasized the need for formalizing and customizing knowledge processes in project-based organizations.

Nadason et al. (2017) identified various barriers to organizational learning, including

individual barriers (fear and lack of motivation), cultural barriers (conflict avoidance and bureaucracy), technological barriers (lack of training and poor usability), and organizational barriers (lack of leadership and insufficient rewards). The research emphasized the importance of knowledge sharing for organizational competitiveness and suggested that organizations must understand the cultural and social impacts to overcome these barriers.

Shahmoradi et al. (2017) identified barriers to knowledge sharing in organizations, including limitations in specialized knowledge, a culture of independent work, non-standardized processes, and inadequate Knowledge Information Systems (KIS). They propose solutions such as addressing organizational culture, increasing employee training, and raising awareness about the benefits of knowledge management.

Blašková et al. (2023) highlight barriers to the development of sustainable creativity in knowledge-based organizations, such as a lack of vision-related knowledge, poor financial conditions, and fear of presenting ideas. They recommend improving communication, motivation, leadership, and organizational processes to foster creativity.

Mogea (2023) focuses on the importance of knowledge management for organizational effectiveness and competitiveness in globalization. While the article does not specifically address the barriers and solutions to organizational learning in knowledge-based companies, it emphasizes the critical role of knowledge management in achieving organizational goals.

These findings underscore the various obstacles to organizational learning in knowledge-based companies that can negatively impact knowledge transfer and management. Understanding and addressing these barriers are essential for improving learning processes and ensuring the success of knowledge-based firms.

While these barriers pose significant challenges, some organizations may strategically address these issues to find growth opportunities, potentially transforming obstacles into catalysts for innovation. Thus, identifying and examining organizational learning barriers is crucial for improving organizational performance and determines their success and sustainability in today's dynamic world.

The barriers to organizational learning have become particularly significant in the current era, where rapid and unpredictable changes occur in economic and workplace environments. Organizations today must continuously adapt and update themselves to meet new challenges. However, barriers such as resistance to change, a lack of skills necessary for learning, and an absence of supportive policies can hinder these efforts.

Given this critical issue and the research gap in this area, this study seeks to explore organizational learning barriers in knowledge-based companies, with a specific focus on firms within the Science and Technology Park.

Various models and classifications, such as those based on different levels (individual, group, organizational) and categories (educational, managerial, organizational, cultural, individual), were reviewed to investigate this topic. After extensive evaluation, the study

selected the "create, disseminate, and act on knowledge" model due to its comprehensive nature and ability to address existing research gaps.

Methodology

This study is applied in nature, aiming to explore the barriers to organizational learning within knowledge-based companies. Adopting a qualitative approach, it employs a survey method to gather data and identify the obstacles hindering organizational learning.

The target population of this study includes managers from companies based in the Science and Technology Park, managers from knowledge-based companies outside the park, and university professors with expertise in organizational learning. These individuals were selected based on their specialized knowledge and experience in the field. Non-random and purposive sampling techniques were employed, and interviews were conducted with ten experts until theoretical saturation was reached. Data collection was stopped when the information gathered during the interviews became repetitive (Patton, 2014).

In field studies, we employed thematic analysis to explore barriers to organizational learning in knowledge-based companies. We conducted and transcribed interviews with ten managers. These interviews were conducted in person, online, and via telephone. The data analysis, which used thematic analysis based on the six-step model of Braun and Clarke (2006), involved repeated reviews of the recorded files and notes, leading to the identification of key themes.

Initial codes were generated by identifying significant features relevant to our research question. These codes were then examined to identify patterns and potential themes, which were refined to ensure they accurately represented the data. We defined and named each theme, providing clear descriptions and ensuring they were distinct and coherent. Finally, we wrote a detailed report of the findings, organizing the themes into three general components and 25 categorized themes.

The following steps were implemented to ensure the credibility of the research: First, participants relevant to the research topic were selected, focusing on those directly involved with the research issue, especially those in managerial positions at knowledge-based companies (Lincoln & Guba, 1985). Additionally, to guarantee the proper analysis of the data based on relevant theories, three experts familiar with the research area reviewed the findings and provided their feedback on the quality of the analysis. Furthermore, data were collected and analyzed simultaneously. After recording the interviews, transcripts and notes were examined, and coding was applied. This process was repeated several times and four interviewees were invited to review the coding stage and provide feedback to enhance accuracy. These insights were incorporated into the analysis and coding process, and the participants also contributed to the interpretation and analysis of the data, especially during the interviews.

The results were compared with the theoretical foundations and previous research.

Additionally, the interview protocol was developed based on the core research questions, which included:

1. What are the barriers to knowledge creation in knowledge-based companies?
2. What are the barriers to knowledge dissemination in knowledge-based companies?
3. What are the barriers to acting on knowledge in knowledge-based companies?

These questions were formulated to identify the various barriers to organizational learning in knowledge-based companies from knowledge creation, dissemination, and operationalization perspectives. The analysis of the research findings follows.

Findings

This research aims to identify the barriers to organizational learning in knowledge-based companies. Semi-structured interviews were conducted with experts based on a literature review and a qualitative approach to achieve this goal. The data analysis from these interviews led to identifying codes, concepts, and categories related to the barriers to organizational learning, emphasizing the process model (knowledge creation, knowledge sharing, and acting on knowledge).

Results from the Interview Analysis

The research tool for this study was semi-structured interviews. Each interview lasted between 30 to 50 minutes. During the interviews, the researcher either took notes on the participants' responses or recorded the conversations for later review. The themes and key points derived from the interviews were examined several times. In total, seven face-to-face interviews, two online interviews (via email and Eitaa), and one telephone interview were conducted.

The following are the extracted indicators from the respondents, along with parts of their responses. Due to the large volume of interview text, only the parts of the responses that contained frequently recurring and extracted codes are presented. Some codes were removed in subsequent reviews due to low frequency or because experts excluded them. Table 1 presents a summary of the interviewees' responses alongside the initial themes identified. It encompasses responses concerning the barriers to knowledge creation, dissemination, and application within knowledge-based companies.

Respondents' Answers and Initial Themes

The following section highlights the extracted indicators from the respondents, accompanied by excerpts from their conversations.

Table 1.
Summary of Interviewees' Responses and Initial Themes

What are the barriers to knowledge creation in knowledge-based companies? What are the barriers to knowledge dissemination in knowledge-based companies? What are the barriers to knowledge-based action in knowledge-based companies?	questions	questions
Primary Themes	Interview Excerpt	Person
<ul style="list-style-type: none"> • Failure to document experiences • Weak experience documentation • Lack of attention to knowledge creation necessity • Poor inter-departmental communication • Absence of healthy competition • Not utilizing documented information • Lack of organizational buy-in • Insufficient employee motivation • Undefined knowledge sharing processes • High degree of personal bias in the organization • Lack of specialized staff for knowledge dissemination 	<ul style="list-style-type: none"> • "...Organizations fail to realize the importance of knowledge creation in the conflict between operational tasks and knowledge creation. It is considered a low priority and is not included in their plans. One reason is that they don't understand the significance, the 'why,' and the impact it has on the organization, which is why knowledge creation does not occur, and in fact, experience documentation does not happen to enable knowledge creation..." • "...Due to the lack of a systematic approach, individualism, and being person-dependent, organizations often do not view knowledge systematically or from a broader perspective. In other words, the knowledge created is not analyzed in terms of its relevance to the organization. Knowledge is dealt with individually and subjectively, leading to a biased approach..." 	P1
<ul style="list-style-type: none"> • Lack of concern for learning • Incorrect use of recorded information • Stinginess in sharing experiences • Lack of communication with different departments • Inexperienced instructors • Incorrect training • Outdated teaching methods • Lack of feedback • Daily work pressure on employees • Non-competitive organizational environment • Failure to encourage risk-taking • Incorrect analysis • Managers' reluctance to take risks and accept new ideas 	<ul style="list-style-type: none"> • "... This is the main barrier to learning: we always wait and we don't consider our locus of control as internal; we view it as external. We are always waiting for someone to prepare and deliver something to us, and often, even when things are prepared, we can't use them properly..." • "... People are instinctively attracted to experiencing new methods as the organization grows and the world progresses. The methods of the teacher-student relationship, classroom lessons, and discussions take us back to our unpleasant past experiences with our teachers and the atmosphere of school, university, and class. This creates a psychological resistance within us." 	P2
.....
<ul style="list-style-type: none"> • Individuals' fixed mindset • Tendency to believe that things have always been done this way • Resistance to new ideas • Lack of time to learn new material • Lack of suitable resources for learning • Absence of a learning culture in the organization • Lack of appreciation for the present instructors in the organization • Dissatisfaction and lack of employee motivation • Viewing training as a cost rather than an investment • Lack of organizational self-confidence • Overburdened employees • Frequent changes in management 	<ul style="list-style-type: none"> • "... Individuals personally resist learning, meaning that what I am right now is enough to do the job I am currently doing..." "... Employees say there are no suitable resources for them to read and learn from..." "... There are barriers that prevent individuals from being motivated to learn, and the most important of these, in my opinion, is the lack of a learning culture within organizations..." "... Often, the view of training is seen as a cost, not an investment, and the smaller organizations become, the less they believe they are investing..." 	P10

(Source: Researcher's Findings)

Primary and Secondary Themes

The codes obtained in the research process related to the essential actions of organizational learning—namely, knowledge creation, knowledge sharing, and knowledge-based performance—have been collected and categorized. In table 2, similar codes are grouped.

Table 2.
Primary Themes Identified in the Research Process: Barriers to Organizational Learning and Their Organizers

	Components	Primary Themes	Secondary Themes
Barriers to Organizational Learning	Barriers to Organizational Learning: Knowledge Creation	Failure to document experiences	Weak Experience Documentation
		Lack of an experience documentation system	
		Absence of an Appropriate Environment for Sharing Experiences	
		Outdated and Simple Information Registration Systems	Outdated System
		Repetitive Technology	
		Using Old Methods for Documenting Experiences	
		Deficiencies in IT Infrastructure	Lack of Financial Support for Documenting Experiences
		Insufficient Budget for Documenting Insights	
		Inadequate Petty Cash	Lack of External Communication
		Lack of Negotiation with External Parties	
		Avoidance of Sharing Embarrassing Results Outside the Organization	
		Managers' Outdated Mindset Regarding Knowledge Creation	Incorrect Behavior of Managers
		Managers' Intolerance to Listening	
		Prevalence of Arrogance Among Managers	
		Excessive Subjectivity in Managerial Approaches	
	Incorrect Conclusions	Incorrect Analyses	
	Lack of Clarity in Cause-and-Effect Relationships		
	Misunderstanding of Objectives		
	Focusing on Smaller Goals	Lack of Clear Vision	
	Lack of Communication Between Different Organizational Departments		
	Failure to Connect with Different Sections	Poor Communication	
	Disconnected Teams		
	Linear Communication		
	Insufficient Employee Motivation	Resistance to Learning and Training	
	Lack of Concern for Learning		
	Employee Non-Cooperation in Training		
	Employees' Disinterest in Learning Beyond Their Expertise		
	Absence of Incentives for Knowledge Sharing		
	Lack of a Learning Culture Within the Organization		
	Resistance to Acquiring New Knowledge		
Resistance to New Ideas			
Lack of Organizational Confidence	Lack of Proper Training		
Erosion of Education-Centered Culture in Organizations			
Lack of Organizational Support for Learning			
Employee Dissatisfaction and Lack of Motivation			
Absence of Specialists for Knowledge Dissemination			
Failure to Utilize Expertise and Elites' Experiences			
Inexperienced Trainers			
Inadequate Training			
Undefined Processes for Knowledge Sharing			
Outdated Teaching Methods			
Repetitive and Traditional Training Processes	Lack of Proper Training		
Lack of Continuity in Training			
Schools and Universities' Weak Educational Systems			
Using Traditional Teaching Methods			

	Components	Primary Themes	Secondary Themes
		Absence of Proper Training	
		Lack of Suitable Resources for Learning	
		Lack of Proper System for Managing and Sharing Knowledge	
		Daily Work Pressure on Employees	Heavy and Exhausting Work
		Busy Work Schedules	
		Overwhelming Responsibilities	
		Lack of Time to Learn New Material	Outdated Mindset of Managers
		Management's Pessimistic View of Training as a Cost Rather Than an Investment	
		Belief That New Knowledge Is Unnecessary	
		Cost-Oriented Perspective on Training	
		Lack of Awareness of the Benefits of Knowledge Sharing	
		Resistance from Managers Against Training Programs	Lack of Encouragement and Appreciation
		Management's Failure to Encourage and Recognize Knowledge Sharing	
		Lack of Appreciation for Experience Sharers	
		Lack of Recognition for Trainers in the Organization	Lack of Financial Support
		Failure to Meet Financial Needs for Training	
		Insufficient Budget for Knowledge Transfer and Training	
		Fear of Losing Position	Unhealthy Competition
		Desire to Maintain Power and Position	
		Lack of Healthy Competition	
	Prevention of Employee Empowerment		
	Non-Competitive Organizational Environment		
	Reluctance to Share Experiences		
	Unwillingness to Compete	Excessive Bureaucracy	
	Complex Hierarchies		
	Excessive Bureaucracy		
	Red Tape in Processes	Lack of Clarity for Employees	
	Failure to Clarify Organizational Objectives		
	Misunderstanding of Goals		
	Lack of a Clear Vision		
	Focus on Short-Term Solutions		
	Emphasis on Smaller Goals		
	Neglect of Long-Term Organizational Progress	Incorrect Analysis Leading to Improper Performance	
	Lack of Awareness of What Needs to Be Known		
	Improper Use of Recorded Information	Lack of Proper Evaluation	
Failure to Utilize Existing Data			
Incorrect Analyses	Lack of Attention to Feedback		
Failure to Review Self and Others' Results			
Lack of Performance Evaluation Systems	Lack of Encouragement for Risk-Taking		
Failure to Give and Receive Feedback			
Neglecting Feedback Culture	Resistance to Change		
Lack of Opportunity to Test New Ideas			
Risk Aversion	Resistance to Change		
Managerial Reluctance to Embrace New Ideas and Risk-Taking			
Viewing Standard Practices as Sacred			
Adherence to Routine Work Stability			
Excessive Subjectivity in the Organization			
Preferring Traditional Methods	Drastic Changes		
Resistance to Change Based on Modern Knowledge			
Fixed Mindsets Among Individuals			
Tendency to Maintain "Business As Usual"	Incorrect Rules		
High Employee Turnover			
Frequent Management Changes	Lack of Individuals' Expertise		
Complex and Overlapping Regulations			
Insistence on Outdated Policies			
Lack of Expertise in Current Roles			
Shortage of Skilled and Experienced Personnel			
Managers' Weak Specialized Knowledge			
Barriers to Organizational Learning: Acting Based on Knowledge			

(Source: Researcher's Findings)

In the following, the secondary themes extracted from the interviews during the research process are presented, along with the frequency of their occurrence in the interviews. These data reflect the main barriers in various organizational learning processes, including knowledge creation, knowledge sharing, and knowledge-based performance. The frequency of themes in the interviews directly indicates the importance of these barriers, as the more frequently a barrier is mentioned in the interviews, the greater its impact on the organization. The table below presents the secondary themes obtained in each of these processes, along with their frequency in the interviews:

Table 3.
Secondary Themes Identified in the Research and Their Frequency in Interviews

Components	Secondary Themes Obtained in the Research Process	Frequency in Interviews
Barriers to Organizational Learning: Knowledge Creation	Weak experience documentation	P1, P5, P7, P8
	Obsolete systems	P3, P5, P7
	Lack of financial support for experience recording	P6, P7
	Lack of external organizational communication	P5, P9
	Managers' misbehavior	P1, P3, P4, P5, P6, P9
	Incorrect analyses	P2, P7
	Lack of clear vision	P4, P6
Barriers to Organizational Learning: Knowledge Sharing	Poor communication	P1, P2, P6, P7
	Resistance to learning and training	P1, P2, P3, P4, P5, P8, P9, P10
	Lack of proper training	P1, P2, P3, P5, P6, P9, P10
	Overwhelming workload	P2, P4, P10
	Managers' obsolete mindset	P4, P6, P8, P9, P10
	Lack of encouragement and appreciation	P3, P5, P10
	Lack of financial support	P3, P6
	Unhealthy competition	P1, P2, P4, P7, P8, P9
	Excessive bureaucracy	P3, P7, P8
Barriers to Organizational Learning: Performance Based on Knowledge	Lack of clarity for employees	P1, P4, P5, P6, P9
	Incorrect analysis leading to incorrect performance	P1, P2, P7
	Lack of proper evaluation	P3, P9
	Lack of attention to feedback	P2, P8
	Lack of encouragement for risk-taking	P2, P7, P8
	Resistance to change	P1, P4, P6, P9, P10
	Severe changes	P6, P10
	Incorrect regulations	P6, P7
Lack of specialization in individuals	P4, P5, P6	

(Source: Researcher's Findings)

Identified Barriers in Organizational Learning

Based on the interviewees' responses, the main barriers were identified in three categories: knowledge creation, knowledge sharing, and acting based on knowledge in knowledge-based companies. In terms of knowledge creation, issues such as failure to document experiences and weak experience recording, as well as the lack of attention to the importance of knowledge creation, especially in organizations that prioritize execution over knowledge creation, were observed.

In knowledge sharing, barriers such as the lack of concern for learning and the incorrect use of recorded information were identified. In acting based on knowledge,

resistance to acquiring new knowledge and fear of losing status were highlighted. These findings indicate that organizations need to establish up-to-date and systematic processes for documenting and transferring knowledge and create a competitive and motivational environment to encourage employees to learn and apply new knowledge.

The results of this study show that various barriers exist in the three key stages of knowledge management processes (knowledge creation, sharing, and application) within the knowledge-based companies located in the Science and Technology Park. These barriers, which directly impact the efficiency and effectiveness of these companies, include issues related to organizational attitudes and behaviors, technological infrastructure, financial resources, educational processes, and internal and external communications. The analysis obtained from this research can assist in identifying weaknesses and proposing solutions to improve knowledge management processes in these companies.

Analysis of Barriers to Knowledge Processes in Knowledge-Based Companies

The findings show that the primary obstacles to the creation, sharing, and application of knowledge in knowledge-based companies in Science and Technology Park are related to a wide range of structural, behavioral, managerial, and systemic issues. Some of the obtained codes have commonalities with other research in the field of knowledge management

1. *Knowledge Creation Barriers*: Structural barriers such as inadequate documentation of experiences, reliance on outdated systems, insufficient financial support for knowledge management, and poor external communications have been identified. These barriers hinder establishing an environment conducive to creativity and innovation, resulting in ineffective knowledge transfer. Additionally, managerial attitudes and incorrect data analysis significantly contribute to these issues (Milway & Saxton, 2011; Kluge, 2009).
2. *Knowledge Sharing Barriers*: In the domain of knowledge sharing, communicative, educational, and motivational barriers are prominent. Challenges include weak communication among organizational members, resistance to learning, and inadequate training. High work pressure and outdated managerial attitudes towards the importance of knowledge sharing further obstruct interaction and collaboration. The lack of incentive systems and the presence of unhealthy internal competition prevent knowledge from being shared effectively (Milway & Saxton, 2011; Kasapoğlu et al., 2021; Bridgespan, 2011).
3. *Knowledge Application Barriers*: The main barriers include weak policy clarification, incorrect data analysis, and failure to use received feedback. Moreover, resistance to change, insufficient expertise among employees, and lack of necessary support for risk acceptance have diminished the effectiveness of execution processes. The existence of ineffective regulations and changes in

organizational policies has also led to instability and reduced employee trust (Kezar & Holcombe, 2020).

These findings suggest that to improve knowledge processes in these companies, attention should be given to structural changes, strengthening organizational culture, and providing continuous training for employees and managers. Additionally, the creation of supportive and incentive systems and a review of existing laws and procedures can help facilitate knowledge management and enhance organizational performance.

Discussion and Conclusion

Organizational learning, one of the essential requirements for coping with environmental changes and increasing competition, enables organizations to achieve flexibility and continuous innovation. However, several barriers were identified in the path of organizational learning, including barriers to creating, sharing, and applying knowledge. Based on the present research findings, the most significant challenges in knowledge sharing include incorrect communication, resistance to learning, outdated managerial mindsets, and lack of financial support, which significantly affect learning processes. These results suggest that to transform organizations into learning entities, focusing on overcoming these barriers is essential.

Organizational learning should be considered as a continuous and endless journey. This journey requires the precise identification of barriers, the creation of an appropriate environment for innovation, and continuous performance evaluation. Knowledge-based organizations, particularly companies located in Science and Technology Parks, can pave the way for long-term progress and success by addressing these barriers and promoting learning.

Recommendations

Recommendations related to knowledge creation:

- *Creating an open space for idea exchange:* A platform should be provided where employees can share their experiences and ideas without fear.
- *Setting common goals:* By defining clear organizational goals, individuals aligned with these goals should be identified and encouraged.
- *Using advanced information documentation systems:* Using advanced tools to document successful experiences and failures is recommended.

Recommendations related to knowledge sharing:

- *Holding training workshops:* Managers and employees should become familiar with learning processes and their importance.
- *Encouraging learning as an organizational value:* Individuals who succeed in learning should be identified and rewarded.
- *Improving horizontal and vertical organizational communication:* Bureaucracy should be reduced and department collaboration should be increased.

Recommendations related to knowledge application:

- *Clarifying roles and responsibilities*: Employees should know their goals and missions.
- *Encouraging risk-taking*: By supporting innovations, organizations should encourage prudent risks.
- *Providing opportunities for continuous feedback*: Effective feedback processes should be established to evaluate actions and identify improvement opportunities.

Future Outlook

This research can serve as a foundation for further studies into organizational learning and its barriers. Future research is suggested to focus on evaluating the impact of overcoming these barriers on the overall performance of the organization, as well as on conducting comparative studies between successful and unsuccessful organizations in this domain.

REFERENCES

- Almeida, M., & Soares, A. L. (2015). From project's information management to project-based organizational learning: The role of knowledge sharing. In *Handbook of Research on Effective Project Management through the Integration of Knowledge and Innovation* (pp. 190-211). IGI Global.
- Armesjö, E., & Leo, A. (2024). *Enhancing Knowledge Transfer for Optimized Product Development in Manufacturing Organizations*. [Master's thesis, Chalmers University of Technology].
- Blašková, M., Sokół, A., & Figurska, I. (2023). Organizational Barriers of a Knowledge-Based Organization in the Aspect of Sustainable Creativity Development. *Journal of Vasyľ Stefanyk Precarpathian National University*, 10(4), 46-62.
- Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology. Qualitative research in psychology*, 3(2), 77-101.
- Chatterjee, S. (2014). Managing constraints and removing obstacles to knowledge management. *IUP Journal of Knowledge Management*, 12 (4), 24-38
- Davenport, T. H. (1998). *Working knowledge: How organizations manage what they know*. NewYork, Harvard Business School.
- De Moraes, C. R. B., & de Souza, L. P. P. (2021). Knowledge, organizational learning, and memory at software companies. In *Role of Information Science in a Complex Society* (pp. 35-44). IGI Global.
- Gani, K., & Moussa, B. (2017). Barriers to investment toward Barriers to learning: the case of B ̄- jaia area's companies in Algeria. *Journal of Management and Innovation*, 3 (1), 1-21.
- Hassanzadeh, M., & Rahimian, S. (2024). Investigating and identifying barriers and organizational limitations of establishing knowledge management in Municipality) case study: Tehran municipality. *International Journal of Knowledge Processing Studies (KPS)*, 4(2), 92-107.
- Hislop, D., Bosua, R., & Helms, R. (2018). *Knowledge management in organizations: A critical introduction*. Oxford university press.
- Kasapođlu, E. B., Kűcűkaltan, B., Ađık, A., Ayaz, İ. S., & Saatđiođlu, Ő. (2021). Prioritizing different types of barriers to knowledge sharing: A cause-and-effect analysis of the views of academics in Turkey. *Yűksekűđretim Dergisi*, 11(3), 578-596.
- Kezar, A. J., & Holcombe, E. M. (2020). Barriers to organizational learning in a multi-institutional initiative. *Higher Education*, 79, 1119-1138.
- Lincoln, Y. S., & Guba, E. G. (1988). *Criteria for Assessing Naturalistic Inquiries as Reports*.
- Massimo, B., & Nora, A. (2022). Barriers to organizational learning and sustainability: The case of a consumer cooperative. *Journal of Co-operative Organization and Management*, 10(2), 100182.
- Milway, K. S., & Saxton, A. (2011). The challenge of organizational learning. *Stanford Social Innovation Review*, 9(3), 44-49.
- Mogea, T. (2023). Knowledge Management and Organizational Learning in Organizational Development. *POPULER: Jurnal Penelitan Mahasiswa*, 2(1), 215-229.
- Nadason, S., Saad, R. A. J., & Ahmi, A. (2017). Knowledge sharing and barriers in organizations: A conceptual paper on knowledge-management strategy. *Indian-Pacific Journal of Accounting and Finance*, 1(4), 32-41.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science*, 5(1), 14-37.
- Pasieczny, J., & Rosiak, T. (2022). Barriers to Implementing the Concept of Learning Organization in Public Administration-the Example of PIORiN. *Annales Universitatis Mariae Curie-Skłodowska, sectio H-Oeconomia*, 56(5), 171-184.

- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.
- Scipioni, S., Russ, M., & Niccolini, F. (2021). From barriers to enablers: The role of organizational learning in transitioning SMEs into the circular economy. *Sustainability*, *13*(3), 1021.
- Shahmoradi, L., Safdari, R., Piri, Z., Mahmoodabadi, A. D., Shahmoradi, S., & Nejad, A. F. (2017). Knowledge sharing as a powerful base for management: Barriers and solutions. *The health care manager*, *36*(2), 176-183.
- Sunnemark, F., Lundqvist Westin, W., Al Saad, T., & Assmo, P. (2024). Exploring barriers and facilitators to knowledge transfer and learning processes through a cross-departmental collaborative project in a municipal organization. *The Learning Organization*, *31*(3), 358-374.
- Zhao, S., Peerally, J. A., De Fuentes, C., & Gonzalez-Perez, M. A. (2024). The determinants of multinational enterprises' sustainable innovations. *International Business Review*, *33*(5), 102318.