Yönetim Bilimleri Dergisi/Journal of Administrative Sciences
Cilt/Volume: 23, Sayı/No: 56, ss./pp.: 1307-1337
DOI: https://doi.org/10.35408/comuybd.1587367

-REVIEW ARTICLE-

AN INTEGRATED FRAMEWORK OF KNOWLEDGE DYNAMICS AND INNOVATION PERFORMANCE*

Hasibe AYSAN[1]

Abstract

This study aims to address the critical yet underexplored relationship between knowledge management practices and organizational innovation capacity by examining how organizations can effectively leverage their knowledge assets to enhance innovation performance. The research identifies a significant gap in current literature regarding the systematic integration of knowledge management practices with innovation processes and proposes an integrated conceptual framework to bridge this theoretical divide. The research aims to synthesize established theories from knowledge management, organizational learning, and innovation literature to develop a holistic understanding of knowledge-driven innovation dynamics.

The study, depending on the review of the existing studies, tries to identify and elaborate on four critical dimensions that may determine an organization's innovation capacity: Knowledge Infrastructure, which encompasses the technological and cultural foundations that support knowledge sharing; Knowledge-Based Innovation Capacity, which reflects an organization's ability to transform knowledge into innovative outputs; Knowledge-Driven Innovation Processes, which detail the systematic approaches to knowledge integration in innovation development; and Knowledge-Centered Innovation Strategies, which align knowledge management initiatives with innovation objectives. This proposed integrated framework aims to address the existing theoretical gaps while providing a robust foundation for future empirical research on the optimization of knowledge management practices for enhanced organizational innovation. The study aims to offer practical implications for organizational leaders and managers, presenting actionable insights for developing sustainable competitive advantages through knowledge-based innovation. Furthermore, it may provide guidance for organizations seeking to assess and improve their knowledge management practices in support of innovation goals.

The research aims to contribute to both theoretical understanding and practical application in the field, offering a structured approach to analyzing and enhancing the relationship between knowledge management and innovation performance in contemporary organizations.

Keywords: *Organizational Knowledge Management, Knowledge-Based Organization Theory, Innovation, Innovation Capacity, Organizational Learning*.
JEL Codes: *O31, D80, D83.*
Başvuru: *18.11.2024* **Kabul:** *19.03.2025*

---

[1] Assist. Prof., Ostim Technical University Department of International Trade and Finance, hasibe.aysan@ostimteknik.edu.tr, 0000-0001-6485-9824

BİLGİ DİNAMİKLERİ VE İNOVASYON PERFORMANSININ ENTEGRE BİR ÇERÇEVESİ [2]

Öz

Bu çalışma, kritik olmasına rağmen literatürde yeterince araştırılmamış bir alan olan bilgi yönetimi uygulamalarının örgütsel inovasyon kapasitesi ile ilintisini inceleyerek, örgütlerin inovasyon performansını artırmak için, bilgi varlıklarını etkili bir şekilde nasıl kullanabileceğini ele almaktadır. Araştırma, bilgi yönetimi uygulamalarının inovasyon süreçleriyle sistematik entegrasyonuna ilişkin mevcut literatürdeki önemli bir boşluğu tespit etmekte ve bu kuramsal ayrımı köprülemek için entegre bir kavramsal çerçeve önermektedir. Araştırma, bilgi odaklı inovasyon dinamiklerine dair bütünsel bir anlayış geliştirmek için bilgi yönetimi, örgütsel öğrenme ve inovasyon literatüründen elde edilen yerleşik kuramları sentezlemektedir.

Çalışmada, yapılan literatür incelemesi neticesinde, bir örgütün inovasyon kapasitesini belirleyebileceği öngörülen dört kritik boyut tanımlanmakta ve açıklanmaktadır. Bu boyutlar şunlardır: Bilgi paylaşımını destekleyen teknolojik ve kültürel temelleri kapsayan Bilgi Altyapısı; bir örgütün bilgiyi yenilikçi çıktılara dönüştürme yeteneğini yansıtan Bilgi Tabanlı İnovasyon Kapasitesi; inovasyon geliştirmede bilgi entegrasyonuna yönelik sistematik yaklaşımları ayrıntılandıran Bilgi Odaklı İnovasyon Süreçleri ve bilgi yönetimi girişimlerini inovasyon hedefleriyle uyumlu hale getiren Bilgi Merkezli İnovasyon Stratejileri.

Bu entegre kavramsal çerçeve, mevcut teorik boşlukları ele alırken, gelişmiş örgütsel inovasyon için bilgi yönetimi uygulamalarının optimizasyonuna yönelik gelecekteki ampirik araştırmalar için sağlam bir temel sunmayı amaçlamaktadır. Çalışma, örgütsel liderler ve yöneticiler için pratik bazı çıkarımlar sunarak, bilgi temelli inovasyon yoluyla sürdürülebilir rekabet avantajları geliştirmek için uygulanabilir iç görüler sunmayı amaçlamaktadır. Ayrıca, örgütlere inovasyon hedeflerini desteklemek için bilgi yönetimi uygulamalarını değerlendirme ve geliştirme konusunda rehberlik sağlamayı amaçlamaktadır.

Araştırma hem kuramsal anlayışa hem de pratik uygulamaya katkıda bulunarak, çağdaş örgütlerde bilgi yönetimi ve inovasyon performansı arasındaki ilişkiyi analiz etmek ve geliştirmek için yapılandırılmış bir yaklaşım sunmayı hedeflemiştir.

Anahtar Kelimeler: *Örgütsel Bilgi Yönetimi, Bilgi Temelli Örgüt Kuramı, Yenilikçilik, Yenilik Kapasitesi, Örgütsel Öğrenme.*

JEL Kodları: *O31, D80, D83.*

"Bu çalışma Araştırma ve Yayın Etiğine uygun olarak hazırlanmıştır."

[2] Genişletilmiş Türkçe Özet, makalenin sonunda yer almaktadır.

1. INTRODUCTION

In the information age, the ability of organizations to gain and maintain sustainable competitive advantage is based on their ability to manage and use their knowledge effectively. Robert M. Grant's article "Toward a Knowledge-Based Theory of the Firm" (1996) laid the foundation for this understanding and was the first study to emphasize the central role of knowledge and knowledge management in organizational theories. Grant's resource-based view of the organization (firm or enterprise) identified the transferability of an organization's resources and capabilities as a critical determinant of its capacity to innovate. In this context, the transferability of knowledge and the absorptive capacity of the firm gain importance as well.

Grant's work was a pioneering work which showed that knowledge management for organizations is not only limited to the traditional topics of strategic management, such as strategic decision-making and competitive advantage, but also addresses other fundamental issues of organization theory. These core issues include intra-organizational coordination, organizational structure, the role of management in the organization, the distribution of decision-making rights within the organization, the determinants of organizational boundaries, and innovation theory. This broad approach has laid the groundwork for a deeper examination of the relationship between knowledge management and organizational innovation capacity.

According to this initial conceptual approach, knowledge-based organizational theory draws attention to the difficulties of knowledge transfer among organizational members, emphasizing the fact that production-related knowledge is mostly tacit knowledge - that is, the kind of knowledge that employees in organizations acquire through experience and intuition- which cannot be easily expressed or transferred Polanyi (1966). These challenges have raised new questions and areas of research on how innovation processes should be managed. Nonaka's (1994) emphasis on the transformation of tacit knowledge into explicit knowledge (and vice versa) and Brown and Duguid's (1991) emphasis on the role of communities of practice providing common structure and meaning in experience transfer, have some studies which provided important perspectives for organizational theory and innovation scholars in addressing these challenges.

This paper aims to extend these theoretical frameworks and aims to examine how knowledge integration and organizational capabilities may shape firms' innovation capacity. In particular, it will focus on tacit and explicit dimensions of knowledge, knowledge transfer and integration processes, and their relationship with organizational structures and routines. This study aims to analyze the potential relationship between knowledge management practices on organizational innovation capacity and to reveal synergies between these two areas. At the end of the study, a conceptual framework will be proposed that aims the explain the state of play between organizational learning, knowledge dynamics, organization's capabilities and innovation capacity of organizations.

In order to achieve its aims, this study is based on a comprehensive review of the existing literature. Key concepts related to knowledge based organizational theory, knowledge management, organizational learning, organizational innovation performance, knowledge dynamics, and innovation capacity were carefully examined. Drawing from the dominant approaches in the literature, an integrated conceptual framework is proposed to offer a holistic understanding of the relationships among these elements.

2. LITERATURE REVIEW

In the following subsections, the antecedent literature that underpins the conceptual framework to be developed will be discussed. Accordingly, firstly, Knowledge-Based Organization Theory will be explained in the context of knowledge management. After explaining the approach of organizational theories to knowledge management, not one by one but with a general framework, organizational knowledge management theories will be explained. Then, innovation approaches will be explained in the context of organizational knowledge management.

2.1. Knowledge-Based Organization Theory

The theoretical framework of knowledge-based organization theory and Grant's knowledge-based approach emphasized the strategic importance of knowledge for firms and its role in achieving competitive advantage. According to this theoretical framework, knowledge is a strategic resource for organizations and a strong determinant of an organization's competitive advantage (Grant, 1996). The knowledge-based perspective is defined as the overarching role of knowledge by effectively integrating the internal and external environment of the organization and the knowledge of experts who contribute to the organization (Kogut and Zander, 1992). In this context, it emphasized that knowledge integration is a critical element for organizations to achieve sustainable competitive advantage (Nonaka and Takeuchi, 1995). The resource-based perspective refers to knowledge as a strategic resource, explaining the reasons why some organizations outperform than others and gain more from strategic resources (Barney, 1991). According to Spender (1996), another researcher who studied knowledge-based organization theory, organization can be understood as a knowledge system and that organizations are cognitive entities. The knowledge-based approach described by Grant’s another study, highlighted the decisive role of knowledge in organizational strategy and performance. According to this approach, higher levels of knowledge may lead an increase in organizational innovation and performance (Grant, 1996i). In this approach, the effective integration of knowledge from inside and outside the organization is considered as one of the core functions of the organization (Kogut and Zander, 1992). In terms of organizational success dimensions such as growth, market share and financial performance, knowledge stands out as a strategic resource with the highest positive relationship (Grant, 1996i).

Strategic knowledge management is a critical process that involves the systematic and effective management of the intellectual capital and knowledge resources of

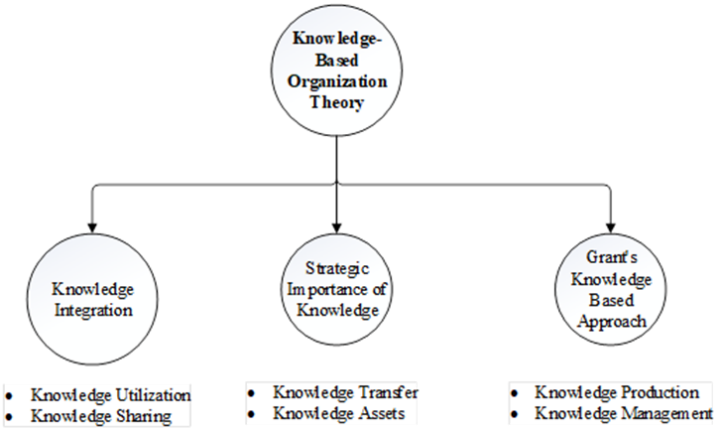
organizations. This approach plays a central role in improving organizational performance and achieving competitive advantage (Teece, 1998). By managing their knowledge assets from a strategic perspective, organizations can achieve sustainable competitive advantage in the market and optimize their value creation processes. By effectively managing both explicit and tacit knowledge, organizations can discover new business opportunities and improve their existing operations. In this process, it is important to create an organizational culture that encourages knowledge sharing and to establish appropriate technological infrastructure (Kucharska and Wildowicz-Giegiel, 2017).

Especially in times of economic uncertainty and market fluctuations, the importance of knowledge management increases even more. As Levinthal and March (1993) emphasized, managing costs associated with acquisitions (i.e., collection), storages (i.e., retention) and exploitations (i.e., operation) of different types of knowledge at the most efficient way is vital for organizations to maintain and develop their innovative capacity. In order to achieve these objectives and to use knowledge as a strategic tool, organizations should optimize information acquisition and development processes in terms of both content and costs thus maximize the value from available information sources (Siachou, 2012).

The contribution of knowledge integration (effectively making the collected knowledge meaningful and usable for the organization) to competitive advantage is important as well. Knowledge integration across organizations may both increases their productivity and may strengthens their competitive position (Tsoukas, 1996). Organizations achieve higher innovation performance when they effectively combine complementary knowledge from different sources. Systems play a crucial role in knowledge creation by developing interfaces that connect disparate information, which provides a competitive advantage through innovation (Prencipe, 2003). Knowledge management capabilities significantly enhance an organization's competitive advantage, with supply chain agility serving as a mediating factor between these capabilities and competitive positioning (Gold, Malhotra and Segars, 2001). Grant's knowledge-based theory of the firm clearly establishes knowledge as a critical determinant of strategic direction, organizational performance, and competitive standing.

Based on the existing literature about knowledge as construct, the knowledge-based organization theory can be conceptualized according to the dimensions presented in Figure 1. Figure 1 was developed in response to a gap identified in the literature regarding the categorization of knowledge-based organization theory approaches. The conceptual framework establishes key dimensions including Grant's process-oriented approach to knowledge production and dissemination, the Strategic Approach which positions knowledge as a resource, and knowledge integration mechanisms that encompass both integration and utilization practices.

Figure 1. Knowledge Based Organization Theory and Its Elements



Source: Generated by the author, 2024

2.2. Organizational Knowledge Management

The very first model, which explains the processes of knowledge creation and sharing in organizations, was developed by Nonaka and Takeuchi (1995) and it takes its name from the initials of the English equivalents of four basic processes that are thought to constitute organizational knowledge: Socialization, Externalization, Combination and Internalization, namely SECI model. Basically, this model systematically explains how institutional knowledge is created and transformed (Easa and Fincham, 2011).

Socialization, the first stage of the SECI model, refers to the sharing of tacit knowledge between individuals. According to Stoenescu (2012), this process includes activities such as face-to-face interactions, master-apprentice relationships and on-the-job training. In the socialization process, individuals share their experiences, technical skills and knowledge through direct interaction.

In the externalization phase, tacit knowledge is transformed into an explicit and shareable form (Kahrens & Früauff, 2018; Nonaka & Yamaguchi, 2022; Stoenescu, 2012). In this process, personal experiences and knowledge are documented, processes are written down and best practices are recorded. Thus, it becomes understandable and usable by others. This stage plays a critical role in the process of organizational knowledge creation because it transforms tacit knowledge into explicit knowledge and makes it available to a wider audience.

The consolidation phase involves the process of bringing together open information from different sources to generate new knowledge or information (Kahrens & Früauff, 2018; Nonaka & Yamaguchi, 2022; Stoenescu, 2012). In this phase, reports are

combined, data are analyzed, and organizational documents are synthesized. In modern organizations, this process is often carried out through information systems and database-like platforms, resulting in new knowledge products or services.

In the final stage, internalization, the new set of knowledge created, i.e., explicit knowledge, is transformed back into tacit knowledge through organizational and individual learning (Kahrens & Früauff, 2018; Nonaka & Yamaguchi, 2022; Stoenescu, 2012). Employees internalize the knowledge they learn by applying, experiencing or learning by doing. This process forms the basis of organizational learning and ensures that knowledge becomes permanent.

Albeit being pioneer, the SECI model also has some limitations. Some scholars question the adaptability of the model to different cultural contexts (Xu, 2009). For example, according to Easa and Fincham (2011), the universal applicability of the model is controversial. In particular, the model is strongly influenced by Japanese business culture and management practices, making its applicability in Western and other cultural contexts questionable. Some scholars, however, confirm that the SECI model is strongly influenced by traditional Japanese values and management practices, although some elements of the model may be applicable in other cultural contexts such as the Arab world and China (Zhuang and Tongxin, 2010).

The SECI model is also compared with other knowledge creation and sharing models. One of them is KIKI model, which is constituted by the first letters of the steps in the knowledge creation process, namely, Knowledge sharing, Identification of needs, Knowledge creation and Implementation of Ideas (Zhang and Kosaka, 2013). According to Ahmad, Bakar, Yahya, and Zulkifli (2011), while the KIKI model focuses on value creation with a customer-oriented approach, the SECI model focuses more on organizational knowledge transformation. While the KIKI model addresses knowledge creation through a service approach, the SECI model focuses on knowledge transformation processes.

In conclusion, the SECI model provides an important theoretical framework for innovation processes and efforts to create learning organizations, especially in knowledge-intensive organizations. The model provides a comprehensive roadmap for the systematic creation, sharing and transformation of knowledge. When successfully applied, it can help organizations gain competitive advantage by increasing their knowledge management capacity (Easa and Fincham, 2011). The model emphasizes the importance of socialization, externalization, combination and internalization in influencing innovative behavior within organizations (Alqahtani, Hawryszkiewycz and Erfani, 2023). Consequently, the model highlights the challenges associated with encouraging employees to share their tacit knowledge and suggests that organizational culture plays an important role in knowledge sharing (Shu and Lin, 2014). For these reasons, in the conceptualization of this study, the knowledge management literature has been accepted as represented by SECI model, as the most comprehensive model of the process.

2.3. Theories of Innovation

This section aims to explain the basic principles of open innovation theory, its contribution to organizational learning and innovation, and the role of dynamic capabilities approach in organizational learning and innovation in the context of open innovation. The interaction of all these concepts with each other will be conceptualized.

The core principles of open innovation theory include three main fundamental processes. These processes include the use, retention, and discovery of external knowledge while conducting business operations (Bagherzadeh, Markovic and Bogers, 2019). These processes are as follows:

1- Inside-Out: It refers to the outsourcing of knowledge, skills and technologies that the organization possesses. In this process, the organization creates commercial opportunities by sharing its internal resources and inventions with external stakeholders (such as other organizations, start-ups, entrepreneurs or research institutions).
2- Outside-In: The organization internalizes knowledge, technology and ideas from the external environment and uses them in its own innovation processes. This refers to attracting new knowledge and technologies from external stakeholders (such as customers, suppliers, competitors or academic institutions) into the organization.
3- Coupled: It represents a combination of inside-out and outside-in processes. In this type of innovation process, organizations both externalize their internal resources and import knowledge and technology from external sources. This process involves collaborative approaches such as joint innovation projects, strategic partnerships and joint ventures.

Open innovation processes are seen as a set of development procedures that are dynamically related to the learning society and the creative environment. Therefore, it appears as a learning process that concerns not only organizations but the society as a whole. These processes enable the creation of an environment conducive to creativity, allowing organizations to transform opportunities into innovative ideas (Bagherzadeh, Markovic & Bogers, 2019).

Similarly, open innovation processes are closely related to organizational learning. Organizational learning is a dynamic process through which businesses improve their performance. An integrated organizational approach to learning and knowledge sharing creates the right environment for creativity and enables the business to transform any identified opportunity into innovation (Bagherzadeh, Markovic and Bogers, 2019). Organizational learning capabilities positively influence both the inward and outward dimensions of open innovation, affecting market efficiency and profitability. To put it differently, inward-looking open innovation practice positively affects both market efficiency and profitability, while outward-looking open innovation practice affects only profitability (Al Nuaimi, Singh and Ahmad, 2024).

Another innovation approach, which is named as Dynamic Capabilities, is closely related to organizational learning and innovation as well. The dynamic capabilities perspective which focuses on the organization's ability to integrate, build and reorganize its internal and external capabilities to cope with environmental changes, is another view that contributes to supporting an open innovation strategy (Rihayana, Supartha, Sintaasih and Surya, 2023). According to some studies dynamic innovation capabilities may lead organizations to adopt a more conservative approach to risk management (Raisch and Birkinshaw, 2008). From this view, when innovation processes become too complex, organizations may turn to safer and low-risk projects. Thus, this can be a barrier to breakthrough innovations. Such inverted U-shaped relationships have been frequently discussed in the management and organizational theory literature. In particular, Raisch and Birkinshaw (2008) discussed this situation within the framework of the concept of "ambidexterity" and emphasized that both exploration and exploitation processes should be balanced.

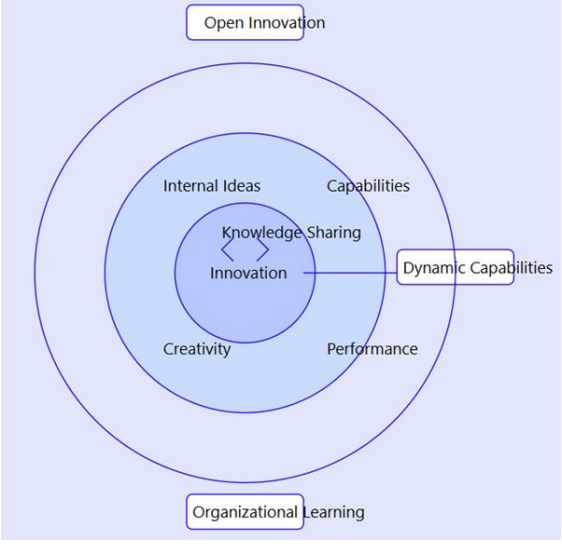
In compasrion, while the open innovation approach focuses on the use, retention and exploration of external knowledge, the dynamic capabilities approach emphasizes the organization's ability to integrate, build and reorganize its internal and external capabilities to cope with environmental changes (Bagherzadeh, Markovic and Bogers, 2019; Rihayana, Supartha, Sintaasih and Surya, 2023). Therefore, open innovation activities can reinforce the positive effects of dynamic innovation capabilities on a breakthrough innovation.

Theorizing the integration of the open innovation approach, the dynamic capabilities approach, and organizational learning to foster innovation in organizations can provide various practical and theoretical benefits. Organizational learning capabilities may positively influence both the inward and outward dimensions of open innovation, affecting market efficiency and profitability. While the practice of inward-looking open innovation positively affects both market efficiency and profitability, the practice of outward-looking open innovation affects only profitability (Nuaimi, Singh and Ahmad, 2024). Therefore, managers should be aware of the limitations of their current dynamic innovation capabilities in developing a radical innovation and open innovation activities will help in the effective coordination of dynamic innovation capabilities of organizations (Cheng and Chen, 2013).

In conclusion, open innovation and dynamic capabilities approaches play important roles in organizational learning and innovation processes. The integration of these concepts has practical implications for fostering innovation in organizations, emphasizing the importance of creating an enabling environment for creativity and knowledge sharing, and highlighting dynamic organizational strategies for seizing radical opportunities and increasing market efficiency and profitability. Another theoretical framework was developed to visualize the integrated relationship between this study's core concepts: Open Innovation, Dynamic Capabilities, and Organizational Learning. As illustrated in Figure 3, this framework is structured as a series of concentric circles, with the outermost circle representing the complete innovation ecosystem. The nested inner circles demonstrate the interconnected

relationships among these three key concepts. The cyclical arrows indicate that this process is continuous and iterative, while "innovation" positioned at the center emphasizes the ultimate objective of these interrelated concepts. Key connecting elements—Knowledge Sharing, Performance, Competencies, Internal/External Ideas, and Creativity—are strategically placed within the model to demonstrate how they mediate the interactions between the primary concepts. This visualization serves to provide an integrated analysis of Innovation Theories and their conceptual relationships.

Figure 2. Integrated Analysis of Innovation Theories and Their Related Concepts



Source: Generated by the author, 2024

The development of innovation theories reflects the efforts of organizations to gain and maintain competitive advantage in a changing business world. Within this theoretical framework (Figure 2), especially dynamic capabilities approach, open innovation approach and organizational learning concepts are defined as closely related and complementary to each other. While the dynamic capabilities approach emphasizes the capacity of organizations to adapt to changing environmental conditions (Teece, 2007), it reveals that these capabilities include the dimensions of perceiving and seizing opportunities and procuring and organizing resources. In this context, the ability of organizations to identify and evaluate market opportunities and to restructure their resources for these opportunities gains importance. These dynamic capabilities emphasized by Teece (2007) in his study are directly related to Chesbrough's (2003) open innovation approach. The open innovation approach argues that organizations should strategically manage internal and external knowledge flows,

and shows that this process takes place through crowdsourcing and collaborative networks. While Chesbrough's (2003) approach emphasizes that experimentation as important as observation in the innovation development process, it also overlaps with Nonaka and Takeuchi's (1995) organizational learning theory.

The organizational learning perspective explains the critical role of knowledge sharing and knowledge acquisition processes in the innovation capacity of organizations. Nonaka and Takeuchi's (1995) explanation of the process of knowledge creation is supported by Von Hippel's (2005) work on user-driven innovation while explaining how organizations learn and transform this learning into innovation development.

In the context of innovation, technological and social innovation processes (dimensions) complement each other. While technological innovation processes focus on digital transformation and R&D activities (Christensen, 1997), social innovation processes aim to develop solutions for social needs (Murray et al., 2010). At the intersection of these two dimensions, the role of innovation in achieving sustainable development goals emerges.

All these theoretical approaches and concepts (Organizational Knowledge Management, Organizational Learning, Open Innovation and Dynamic Capabilities approaches) give us a good starting point to provide an integrated framework for developing the innovation capacities of organizations. Dynamic capabilities facilitate the implementation of open innovation strategies, while organizational learning supports the development of these capabilities (as explained in Figure 2 and the previous paragraphs). At the operational level, knowledge sharing and experimentation feed both technological and social innovation processes. As West and Bogers (2014) argue, this integration and interaction is critical in enhancing the innovation performance of organizations.

Within this complexity of the innovation ecosystem, the success of organizations depends on their capacity to effectively manage and integrate all these different dimensions. Zahra and George's (2002) concept of absorptive capacity offer important insights into how organizations can achieve this integration. According to them, innovation management requires a holistic approach that not only follows technological developments but also encompasses social, organizational and strategic dimensions.

The theoretical approaches described so far reflect the multidimensional and dynamic nature of innovation and provide important clues about how organizations should adopt an approach to achieve sustainable competitive advantage. On the other hand, the existing literature does not mention how knowledge management and innovation processes interact in organizations. However, how to evolve such an integrated approach in the context of digital transformation and sustainability has emerged as an important area of study for researchers and practitioners. In the following section of this paper, an integrated conceptual framework will be proposed taking into account

these needs, and the proposed conceptual framework will be discussed in the following section.

3. METHODOLOGY

The research methodology employed in this study integrates an extensive literature review with theoretical analysis to develop a comprehensive understanding of the knowledge-innovation relationship. By synthesizing multiple theoretical perspectives, which are explained in the literature review part above, the study aims to offer a more nuanced and complete picture of how knowledge management practices influence innovation outcomes. This approach enables the identification of key variables and relationships that may have been previously overlooked or underexplored in the literature.

4.THE INTERACTION OF KNOWLEDGE MANAGEMENT AND INNOVATIVENESS IN ORGANIZATIONS: A PROPOSAL FOR AN INTEGRATED CONCEPTUAL FRAMEWORK

To understand the complex relationship between knowledge management and innovation, this study proposes a four-dimensional conceptual framework. As mentioned earlier this conceptual framework developed inspiring from the existing literature. This framework borrows organizational knowledge management theory and organizational learning from the organizational literature and innovation approaches from the open innovation and dynamic capabilities approaches described above. According to the conceptual framework developed, four basic organizational dimensions can determine the innovation capacity of organizations. These are:

1- Organizational Knowledge Management Infrastructure dimension (hereafter referred to as Infrastructure).
2- Capacity for Knowledge-based Innovation dimension (hereafter referred to as Capacity).
3- Knowledge-driven Innovation processes dimension (hereinafter referred to as Process).
4- Knowledge-Centered Innovation Strategies dimension (hereinafter referred to as Strategy).

4.1. Infrastructure

Knowledge infrastructure refers to an organization's capacity to store, access and share knowledge. This dimension includes organizational memory systems (OMS), knowledge repositories and existing or potential networks, and knowledge sharing culture. Argote and Miron-Spektor (2011) emphasized the impact of organizational memory on innovation and stated that knowledge storage systems increase innovation potential by facilitating learning from past experiences.

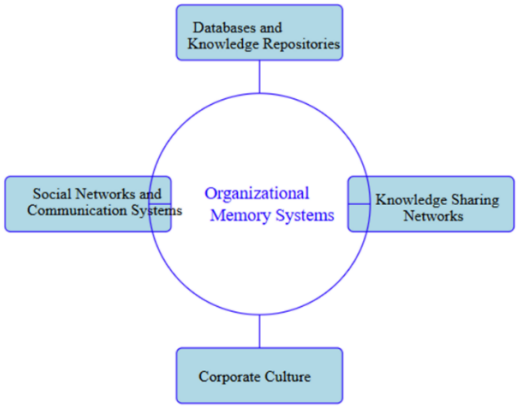
Key components of organizational memory systems and knowledge repositories, i.e., the most commonly used OMSs include shared databases, social networks, email, information systems, and corporate social media accounts (Arasaki, Steil and Santos, 2017). OMSs are critical for accessing knowledge derived from experiences and to support decision-making in knowledge-intensive organizations (Arasaki, Steil and Santos, 2017).

The role of existing or potential networks in contributing to potential knowledge sharing culture can be measured by the fact that knowledge sharing, as a dynamic social process, creates an organizational culture that contributes to achieving strategic business goals and improving overall organizational performance (Kucharska and Wildowicz-Giegiel, 2017). Knowledge sharing in organizations takes place through formal and informal human communication contacts during work and is characterized by the creation of a complex multi-level network that determines the diffusion of knowledge within the organization (Szilágyi, 2017).
On the other hand, there are some challenges in implementing a knowledge sharing culture through OMSs. For example, according to Mehairi and Zakaria (2014), many organizations fail to use knowledge management systems effectively because they ignore common elements that contribute to the success of knowledge sharing, such as organizational culture, and do not pay attention to knowledge sharing as a key component of knowledge management. Relatedly, there are studies suggesting that the impact of national culture on knowledge sharing has important implications for all organizations and that a more comprehensive framework needs to be developed to understand how national culture affects knowledge sharing (Laitinen, Pawlowski and Senoo, 2015).

The benefits of combining organizational memory systems and knowledge sharing culture in an organization seem to be much greater than the assumed challenges. Accordingly, a trusted organizational culture based on values that emphasizes sharing and encourages interactions among stakeholders at all levels breeds and nurtures knowledge sharing activities and contributes to the development of strong organizational memory reserves (Robinson and Ensign, 2009). Knowledge sharing within the organization is a key success factor that enables the organization to adapt more successfully to changes in the market environment and gain competitive advantage (Szilágyi, 2017). Therefore, it is critical to manage it effectively.

Figure 3 illustrates the central role of Organizational Memory Systems within the infrastructure pillar of innovation capacity. The diagram depicts four key components that interact with organizational memory: (1) Databases and Knowledge Repositories (top): Storage mechanisms that preserve institutional knowledge, (2) Knowledge Sharing Networks (right): Channels facilitating information exchange, (3) Social Networks and Communication Systems (left): Interpersonal structures supporting knowledge flow (4) Corporate Culture (bottom): The underlying organizational values and practices.

Figure 3. Organizational Memory and Organizational Elements with Which It Interacts



Source: Generated by the author, 2024

The framework in the Figure 3 suggests that organizational memory can serve as a foundational element for innovation capacity assessment. Such assessment requires examining an organization's historical knowledge accumulation, categorization methods, and storage/retrieval systems. While organizational age correlates with memory development, the quality and relevance of accumulated knowledge matters more than quantity. The infrastructure supporting innovation capacity depends primarily on organizational history and memory systems.

The integration of these elements can diversify across organizations. Those that effectively connect past knowledge with present conditions typically foster environments where employees more readily generate and implement innovative ideas. The corporate culture component acknowledges that organizational context significantly influences how memory systems function and whether they enable or inhibit innovation initiatives.

4.2. Capacity

Capacity dimension refers to an organization's ability to integrate its existing knowledge base with new knowledge and transform this integration into innovative outputs. Zahra and George (2002) made a significant contribution by distinguishing between potential and realized dimensions of absorptive capacity. This is crucial for understanding how organizations innovate through a series of interconnected processes: knowledge acquisition, assimilation, internal knowledge transfer, transformation, and ultimately utilization. Inspiring from this, the proposed capacity dimension in this study aims to answer the question of where do innovative ideas come from in an organization? This question can be answered by organizational history, context and the current knowledge base of the organization. Each different answer will play a role in determining the organizational innovation capacity.

The concept of knowledge integration, i.e., the process of creating a viable and meaningful whole from organizational innovation ideas from different sources, is based on combining independent knowledge bases and resolving inconsistencies that arise in this process, as discussed in detail by Kozierkiewicz, Du Nguyen, and Pietranik (2018). This integration process is made manageable by breaking it down into smaller subtasks with the multi-level approach proposed by the same researchers. The conceptual framework presented by Siachou (2012) in his research on innovation teams examines in detail the various types of knowledge costs and the bidirectional role of knowledge processors in innovative actions. From this point of view, the innovative approach developed by Huang (2006) aims to improve organizational performance by targeting the effective management of innovative knowledge within an integrated knowledge management framework.

Regarding the innovative outcomes from knowledge integration, Marcelino-Jesus, Sarraipa, Antão, Jardim-Goncalves, and Mendonça (2012) found that knowledge integration in the innovation process gives organizations innovation capability and competitive advantage. Dibiaggio and Nasiriyar (2009)'s research shows that the integration of complementary knowledge enhances the innovative performance of organizations and system integrators play a critical role in the knowledge creation process. Cruywagen, Swart, and Gevers (2013) emphasize that an organization's ability to create, share, and integrate knowledge is a strategic resource and a key enabler of innovation.

In terms of challenges and opportunities, Asprino (2016) lists the main challenges in knowledge integration as managing conflicts, avoiding unnecessary duplication, and linking existing knowledge with incoming knowledge. The lack of interoperability between technological systems can be a significant barrier to the establishment of dynamic business partnerships, especially regarding the semantics of shared knowledge. Moreover, the integration of technology and market knowledge into innovative ideas and new product development processes poses challenges for knowledge creation, idea generation and knowledge acceptance in organizations.

Thus, the capacity dimension, which is the second dimension of the conceptual framework to be developed in this study, is inspired by the literature described above and divides the sources of innovative ideas for the organization into two as internal sources and external sources. Accordingly, ideas within the organization will primarily come from employees. In addition to this, the units assigned exclusively for this task also determine the source of innovative ideas within the organization. For example, Research and Development units (R&D) are the most important sources of innovative ideas in organizations. At this point, the innovation capacity of an organization can also be assessed through the budget allocated to the R&D unit and related projects.

In cases where the organization's innovation ideas are fed from external sources, the most important points where innovation ideas come from can be possible by

integrating the knowledge capacity of the new organization into existing knowledge centers through mergers or acquisitions. Apart from this, competitors, market data, technological developments appear as sources that provide innovative ideas to the organization.

4.3. Process

The process dimension represents the third component of the proposed conceptual framework for measuring organizational innovation capacity in this study. This dimension encompasses several key elements: the organization's structure, production facilities, decision-making mechanisms, and organizational learning processes. In essence, it includes all processes necessary for conducting organizational activities. The process dimension specifically examines how these elements support and facilitate innovation capacity by enabling the generation of new ideas and their transformation into concrete results.

The SECI model, as described earlier, is a dynamic and dialectical process proposed by Nonaka and Takeuchi, involving four modes of knowledge transformation. These transformation stages, as stated earlier, are as follows: Socialization, Externalization, Integration and Internalization. This model emphasizes the interaction between tacit and explicit knowledge and explains the importance of knowledge creation in the development and growth of organizations (Del Giudice and Cillo, 2022). The relationship between the SECI Model and Organizational Structure and Decision-Making Mechanisms can be explained as follows. Organizational structures serve a dual function in decision making by unifying and shaping individuals' decisions (Piezunka and Schilke, 2023). The SECI model's emphasis on knowledge creation and transformation is consistent with the influence of decision-making structures on the voting behavior of individuals in organizations (Piezunka and Schilke, 2023). On the other hand, previous studies have not done enough to explain the direct relationship between the SECI model and organizational structure or decision-making mechanisms.

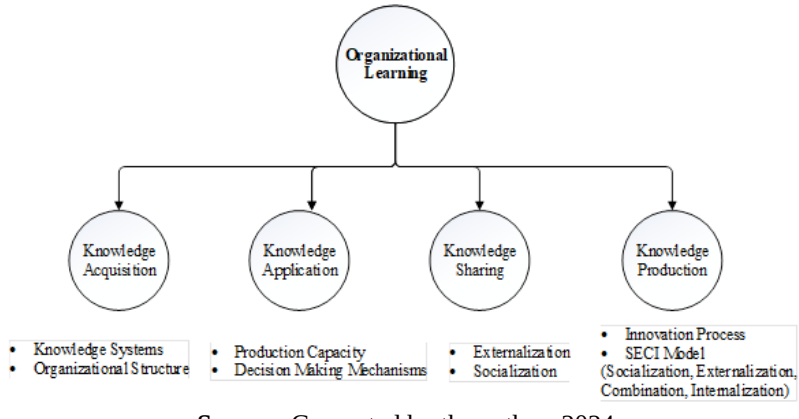
Knowledge management, innovation, organizational learning and technological capacity in organizations are interconnected. More precisely, previous studies show that organizational learning influences knowledge management and technological capacity (Sebastian and Eduard, 2024; Yu, Zhang and Shen, 2017). Organizational learning activities and culture of innovation can result in product and process discovery or innovation, which highlights the impact of continuous organizational learning on organizational innovation performance (Ghasemzadeh, Nazari, Farzaneh and Mehralian, 2019). The SECI model's focus on knowledge creation is in line with the concept of organizational learning as a key process in creating key competitive advantages through innovation discovery (Del Giudice and Cillo, 2022).

In conclusion, although the SECI model proposed by Nonaka and Takeuchi (1995) emphasizes knowledge creation and transformation, its direct relationship with organizational structure, production capacity and decision-making mechanisms is not

explicitly addressed. However, this model's focus on knowledge creation is consistent with the concept of organizational learning and its impact on innovation processes and technological capacity. Research should be increased to fully integrate the SECI model with organizational structure, productive capacity and decision-making mechanisms.

That is why, organizational learning as a process element is generated in Figure 4. As it can be seen in the Figure 4 SECI model constitutes solely one dimension of organizational learning, namely in knowledge production dimension. On the other hand, as the process element organizational learning that is argued in this study involves knowledge acquisition, application and sharing processes as well. Thus, the development of this figure is necessary because it provides a more integrated view of how knowledge flows through organizational systems. It demonstrates that effective organizational learning requires not only knowledge creation (as emphasized in the SECI model) but also robust mechanisms for acquisition, application, and sharing that are embedded within organizational structures and decision-making processes.

Figure 4. Organizational Learning as a Process Element



Source: Generated by the author, 2024

This holistic representation (as seen in Figure 4) helps organizations better understand how knowledge management connects to innovation capacity and organizational effectiveness, addressing the research gap identified in the need to fully integrate knowledge creation models with organizational structure, productive capacity, and decision-making mechanisms.

4.4. Strategy

The final dimension of the proposed conceptual framework is knowledge-centered innovation strategies. Knowledge-centered innovation strategies refer to how an organization aligns its knowledge management practices with its overall strategic

goals. Chesbrough's (2003) open innovation paradigm suggests that organizations can increase their innovation capacity by strategically using external sources of knowledge. In this context, knowledge preservation and evaluation mechanisms also gain importance (Teece, 1986).

In order to develop an innovation-oriented strategy in organizations, the alignment of the organization's information strategy and organizational overall strategy are critical. Strategic information security or information security strategy in organizations encompasses not only information technology products and solutions, but also organizational integration and social cohesion mechanisms. These systems aim to balance the need to protect information assets with the need to ensure business continuity (Kayworth and Whitten, 2010). Information strategy determines how information technology and systems will be used to support organizational strategy. Organizational information strategies set standards and define mechanisms for coordinating information systems and related technological activities (Teubner and Mocker, 2007).

The alignment of information systems (IS) strategy with business and organizational strategy is recognized as critical to organizational success. A shared understanding between the Chief Information Officer (CIO) and the senior management team about the role of information systems within the organization is seen as an important prerequisite for IS strategic alignment. Factors such as organizational development, human resources and IT infrastructure play an important role in achieving strategic alignment. In this context, the alignment of IS and organizational strategy are critical success factors in knowledge management (Yayla and Hu, 2012).

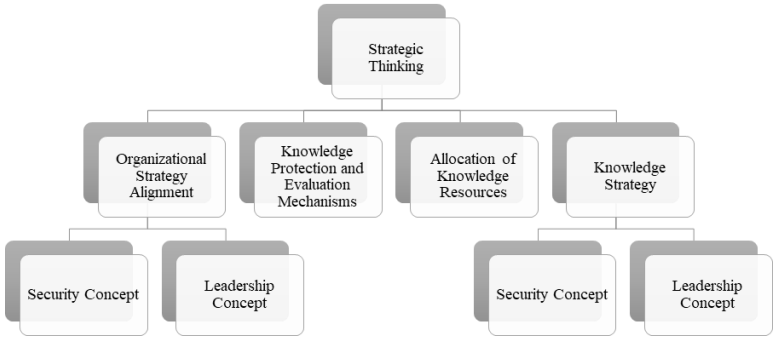
Effective information technology (IT) that supports organizational strategies and processes in a dynamic environment is a key element for a company's success as well. Silvius (2011) demonstrates that organizations achieving successful alignment between organizational strategy and information technology (IT) strategy exhibit superior performance outcomes compared to those lacking such strategic alignment. The relationship between IT strategy and adaptability is clear; a more progressive IT strategy facilitates the achievement of organizational goals by increasing organizational and IT alignment.

Another important aspect of strategy dimension is related with leadership. Effective leadership is necessary to ensure information security at the organizational level. Loonam, Zwiegelaar, Kumar, and Booth (2020) stated that leadership plays a critical role in giving importance to information security at the organizational level. To them, a strategically focused information security strategy should include not only IT products and solutions, but also organizational integration and social cohesion mechanisms. Organizational capabilities, such as the ability to develop high-quality situational awareness of the current and future threat environment, are associated with the effective implementation of an information security strategy, which will positively impact organizational performance, as noted in previous studies (Hall, Sarkani and Mazzuchi, 2011; Kayworth and Whitten, 2010).

All leaders in organization settings, including Chief Information Officers (CIOs), play important roles in ensuring alignment between information systems and organizational strategies. As Che, Feng, and Liu (2012) found in their study, CIOs with a transformational leadership style are better aligned with organizations that adopt an innovative strategy, while CIOs with a transaction-oriented leadership style are better aligned with organizations that adopt a defensive strategy. Effective information security management is of strategic importance for organizations to protect their information resources. According to this perspective, strategic value alignment is considered as a proactive approach to manage value conflicts in information security management (Tu, Yuan, Archer and Connelly, 2018).

Consequently, the alignment of knowledge strategy with organizational strategy is critical for organizational success. Factors such as shared understanding, leadership, capabilities and organizational development play important roles in achieving strategic alignment. While effective resource allocation for information positively impacts organizational strategy, a strategically focused information security strategy includes organizational integration and social cohesion mechanisms. In particular, the leadership style of the CIO plays an important role in ensuring alignment between information systems and business strategies. Effective information security management is a strategic issue for organizations to protect their information resources. In order to explain this interrelatedness a four-dimensional conceptual framework developed (Figure 5) in an aim to provide a holistic approach for understanding the complex relationships between knowledge management and innovation. The figure 5 is a hierarchical diagram illustrating the components of Strategic Thinking in a knowledge management or organizational strategy context.

Figure 5. Elements of Innovation Based on Strategic Thinking and Knowledge Management



Source: Generated by the author, 2024

The Figure 5 suggests that strategic thinking involves aligning organizational strategies, protecting and evaluating knowledge, allocating resources effectively, and developing a knowledge strategy. These core elements are linked to security and leadership concepts, implying that both security and leadership are critical factors across different aspects of strategic decision-making and knowledge management. By effectively managing and integrating these dimensions, organizations can develop a sustainable innovation capacity. The next section discusses the theoretical and practical implications of the developed conceptual framework

5. THEORETICAL AND PRACTICAL IMPLICATIONS OF THE CONCEPTUAL FRAMEWORK

As explained in the sections above, there are very few integrated studies that combine innovation theories with concepts that are widely studied in organizational literature such as knowledge management and organizational learning. This study has emerged with the aim of filling this gap in both literatures. Accordingly, the determinants of innovation and innovation capacities of organizations are more complex and cyclical than what has been described in previous studies. The conceptual framework developed (Figure 6) aims to develop new perspectives in the innovation literature thus contribute to the transformation of innovative ideas into concrete phenomena. It also aims to contribute to the organizational literature by providing new perspectives on knowledge management, strategic thought management and organizational learning.

The conceptual framework of this study consists of four key dimensions to make sense of organizations' knowledge management and organizational development processes: Infrastructure, Capacity, Process and Strategy. These dimensions can cover the key areas that organizations need to structure in order to gain competitive advantage and use knowledge management systems effectively. This framework is elaborated through the functions of each dimension and their contributions to the organizational structure.

Infrastructure refers to the technological, physical and organizational foundational elements of the organization that are essential for knowledge management. Components such as information technologies, data storage systems and communication infrastructures play a critical role in ensuring rapid access to and security of information. A strong infrastructure enables an organization to use knowledge management systems effectively. As Davenport and Prusak (1998) emphasize in their study on knowledge management processes, a robust infrastructure facilitates the efficient processing and distribution of knowledge. In this context, organizations should increase investments in strengthening infrastructure and follow technological developments. Therefore, organizational memory for organizations, as described in the organizational literature, becomes a strategic resource by reconstructing and reconstructing knowledge with the help of processes such as stories, meaning extraction, and reinterpretation (Whittle, Vaara and Maitlis, 2023).

Moreover, in this way, it is natural that the innovation capacity of the organization increases.

The capacity dimension includes the organization's processes such as human resources and talent management. It is the source of innovative ideas to be elaborated and found here. It covers the elements that encourage employees' participation in knowledge management processes, learning capacities and knowledge sharing within the organization. As stated in Kaplan and Norton's (2004) balanced corporate scorecard approach, increasing employees' competencies and access to knowledge contributes to the long-term success of the organization. Capacity building also increases an organization's knowledge capital by enhancing employees' ability to share knowledge and collaborate. Therefore, organizations should focus on building employees' capacity through training programs and learning opportunities.

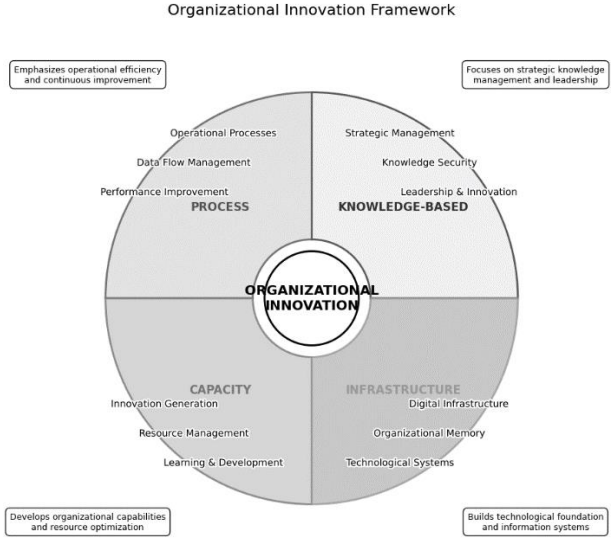
The process dimension includes the workflows and procedures necessary for the effective functioning of the knowledge management cycle. This cycle includes the stages of knowledge collection, storage, processing and dissemination. According to the knowledge creation theory developed by Nonaka and Takeuchi (1995), well-designed knowledge creation and sharing processes in organizations increase organizational innovation. Effective process management accelerates the flow of knowledge and ensures that it reaches the right people. In this framework, organizations should optimize their processes and eliminate barriers to knowledge flow.

The strategy dimension involves setting knowledge management goals and making long-term plans to achieve these goals. This dimension ensures that knowledge management processes are aligned with organizational goals. As stated in Porter's (1985) model of competitive strategies, strategic knowledge management provides organizations with sustainable competitive advantage. The strategic approach increases the organization's ability to make knowledge-based decisions and strengthens the effectiveness of knowledge management systems. In this context, it is important for organizations to consider environmental changes and competitive conditions while determining their knowledge management strategies.

In summary, the proposed conceptual framework that can be seen in Figure 6, reveals how knowledge management can be used as a strategic tool for organizations. The dimensions of infrastructure, capacity, process, and strategy serve as integral components within organizational knowledge management frameworks. Each dimension fulfills a distinct yet interdependent function in facilitating effective knowledge acquisition, dissemination, and utilization. The strategic alignment of these dimensions constitutes a pivotal determinant in an organization's capacity to develop and maintain sustainable competitive advantage in increasingly knowledge-intensive market environments. The framework developed by this study by addressing these four dimensions aims to work as a guide for organizations to assess and improve their knowledge management capacities.

The conceptual framework visualized in Figure 6 has practical contributions to organizations well. As explained with various examples above these practical implications, mainly intends to increase competitive advantage of companies externally and intends to generate a knowledge supporting working environment for workers internally. For example, the reflections of innovation-oriented learning processes on daily working practices or creating a culture of innovation within the organization and making the organizational climate suitable for innovation and idea generation can be seen among these. Additionally, the framework provides guidance for implementing cross-functional teams that break down departmental silos, enabling knowledge exchange and collaborative problem-solving that leads to more diverse and robust innovation outcomes.

Figure 6. Knowledge-Based Organizational Innovation Capacity Integrated Conceptual Framework Proposal



Source: Generated by the author, 2024

CONCLUSION

This study intended to contribute to the understanding of how knowledge management practices may influence organizational innovation capacity by proposing an integrated conceptual framework that bridges multiple theoretical perspectives. The proposed framework, grounded in several literatures, incorporates key elements from knowledge management, organizational learning, and innovation literature. Through the four dimensions—Knowledge Infrastructure, Knowledge-Based Innovation Capacity, Knowledge-Driven Innovation Processes, and Knowledge-Centered

Innovation Strategies—the framework tries to offer a holistic view of the factors that shape an organization's ability to innovate.

The analysis underscores the importance of a structured approach to managing knowledge dynamics, highlighting that both tacit and explicit knowledge integration is essential for sustaining competitive advantage. Specifically, knowledge infrastructure provides the foundation upon which other dimensions build, enabling organizations to store, share, and utilize information effectively. Knowledge capacity emphasizes the integration of internal and external knowledge sources, which enhances the organization's potential for innovation. The processes dimension illustrates the role of workflows, organizational structure, and decision-making mechanisms in creating and supporting an innovation-friendly environment. Finally, a strategically aligned knowledge-centered innovation approach ensures that knowledge management practices are in harmony with broader organizational goals, thus enabling sustained innovation.

The study also offers several practical implications. First, organizations are encouraged to invest in robust knowledge infrastructure, including technological systems and knowledge repositories that support seamless information flow. Second, fostering a knowledge-sharing culture is critical, as it directly influences the quality and accessibility of organizational knowledge. Third, the alignment of knowledge management strategies with organizational goals requires strong leadership and a forward-looking vision. This alignment not only supports innovation but also builds resilience, allowing organizations to adapt to changing market conditions.

One of the key contributions of this study is the identification of synergies between knowledge management and innovation processes. By examining the intersection of these areas, the framework allows for a deeper exploration of how knowledge-based resources contribute to organizational growth and competitive positioning. The integration of open innovation principles and dynamic capabilities within this framework provides a practical roadmap for organizations seeking to harness knowledge as a driver of innovation.

Future research should empirically validate the proposed framework to assess its applicability across diverse organizational contexts. Additionally, examining the role of digital transformation in shaping knowledge-based innovation processes presents an intriguing avenue for further exploration. As digital technologies continue to reshape organizational landscapes, understanding how these tools can enhance knowledge management and innovation capabilities will be crucial.

In conclusion, this study emphasizes the strategic importance of knowledge management in driving organizational innovation. The integrated framework provides both theoretical and practical insights for organizations aiming to enhance their innovation capacity through knowledge-driven strategies. By effectively managing knowledge flows and fostering a culture of learning, organizations can develop a

sustainable competitive advantage, positioning themselves as leaders in an increasingly knowledge-intensive economy.

BİLGİ DİNAMİKLERİ VE İNOVASYON PERFORMANSININ ENTEGRE BİR ÇERÇEVESİ GENİŞLETİLMİŞ ÖZET

Bu çalışma, günümüzün giderek artan rekabetçi iş ortamında örgütlerin inovasyon performansını artırmak için bilgi varlıklarını nasıl etkili bir şekilde kullanabileceklerini inceleyerek, bilgi yönetimi uygulamaları ve örgütsel inovasyon kapasitesi arasındaki kritik ancak yeterince araştırılmamış ilişkiyi ele almayı amaçlamıştır. Araştırma, bilgi yönetimi uygulamalarının inovasyon süreçleriyle sistematik entegrasyonuna ilişkin mevcut literatürdeki önemli bir boşluğu tespit etmekte ve bu teorik ayrımı birleştirmek için entegre bir kavramsal çerçeve önerirken, inovasyon yeteneklerini optimize etmek isteyen kurum liderleri için pratik iç görüler sunmayı hedeflemektedir. Grant'in firma tabanlı bilgi teorisini başlangıç noktası olarak alan bu çalışma, örgütlerin inovasyonu teşvik etmek için hem örtük hem de açık bilgiyi nasıl stratejik olarak yönetebileceklerine dair kapsamlı bir analiz sunmaktadır. Araştırma, bilgi odaklı inovasyon dinamiklerinin bütünsel bir anlayışını geliştirmek için bilgi yönetimi, örgütsel öğrenme ve inovasyon literatüründen yerleşik teorileri sentezlemektedir. Bu teorik temel, bilginin stratejik bir kaynak olarak kritik rolünü ve yenilikçi yetenekler yoluyla sürdürülebilir rekabet avantajları geliştirmedeki temel önemini vurgulamaktadır.

Çalışma, bir örgütün inovasyon kapasitesini belirleyen dört kritik boyutu tanımlamakta ve detaylandırmaktadır. Birincisi, Bilgi Altyapısı, örgütlerde bilgi paylaşımını ve yaratımını destekleyen teknolojik, kültürel ve yapısal temelleri kapsamaktadır. Bu, teknolojik platformlar gibi somut unsurları ve örgütsel kültür ve liderlik desteği gibi soyut unsurları içerir. Altyapı boyutu bilgi ile ilgili tüm faaliyetler için gerekli temeli sağladığı ve örgüt genelinde bilgi akışının etkinliğini belirlediği için çok önemlidir.

İkincisi, Bilgi Tabanlı İnovasyon Kapasitesi, bir örgütün bilgiyi yenilikçi çıktılara dönüştürme yeteneğini yansıtır. Bu boyut, inovasyon amaçları için bilgiyi tanımlama, edinme, özümseme ve uygulama için gerekli örgütsel yeteneklere odaklanır. Özümseme kapasitesi, bilgi entegrasyon mekanizmaları ve örgütün mevcut bilgiyi yeni iç görülerle birleştirerek katma değerli inovasyonlar yaratma yeteneği gibi faktörleri içerir.

Üçüncüsü, Bilgi Odaklı İnovasyon Süreçleri, inovasyon geliştirmede bilgi entegrasyonuna yönelik sistematik yaklaşımları detaylandırır. Bu boyut, örgütlerin inovasyon yaşam döngüsü boyunca etkili bilgi kullanımını sağlamak için kullandıkları belirli prosedürleri, metodolojileri ve çerçeveleri ana hatlarıyla belirtir. Örgütlerin bilgi kullanımı ve keşfini maksimize ederek yenilikçi çıktılarını nasıl artırabileceklerini ele alır.

Dördüncüsü, Bilgi Merkezli İnovasyon Stratejileri, bilgi yönetimi girişimlerini inovasyon hedefleriyle uyumlu hale getirir. Bu stratejik boyut, örgütlerin bilgi yönetimi çabalarının amaçlı olarak inovasyon hedeflerine yönlendirilmesini sağlar. Örgütün inovasyon gündemini destekleyen bilgi edinme stratejileri, bilgi paylaşım politikaları ve bilgi koruma mekanizmalarının geliştirilmesini içerir.

Bu entegre çerçeve, mevcut kuramsal boşlukları ele alırken, örgütsel inovasyonun geliştirilmesi için bilgi yönetimi uygulamalarının optimizasyonu üzerine gelecekteki ampirik araştırmalar için sağlam bir temel sağlamayı hedeflemiştir. Çalışma, örgüt liderleri ve yöneticiler için pratik çıkarımlar da sunarak, bilgi tabanlı inovasyon yoluyla sürdürülebilir rekabet avantajları geliştirmek için uygulanabilir içgörüler sunmaktadır. Ayrıca, inovasyon hedeflerini desteklemek için bilgi yönetimi uygulamalarını değerlendirmek ve geliştirmek isteyen örgütler için rehberlik sağlamaktadır.

Bu çalışmada kullanılan araştırma metodolojisi, bilgi-inovasyon ilişkisinin kapsamlı bir anlayışını geliştirmek için kapsamlı literatür taramasını teorik analizle birleştirmektedir. Çoklu teorik perspektifleri sentezleyerek, çalışma bilgi yönetimi uygulamalarının inovasyon sonuçlarını nasıl etkilediğine dair daha nüanslı ve eksiksiz bir resim sunmaktadır. Bu yaklaşım, literatürde daha önce gözden kaçırılmış veya yeterince araştırılmamış kilit değişkenlerin ve ilişkilerin tanımlanmasına olanak sağlar.

Bu araştırmanın pratik çıkarımları, inovasyonun hayatta kalma ve büyüme için kritik olduğu bilgi yoğun endüstrilerde faaliyet gösteren örgütler için özellikle önemlidir. Önerilen kavramsal çerçeve, örgütlerin mevcut bilgi yönetimi uygulamalarını değerlendirmeleri ve inovasyon süreçlerindeki iyileştirme alanlarını belirlemeleri için yapılandırılmış bir yaklaşım sağlar. Ayrıca, inovasyon performansını artırabilecek bilgi yönetimi stratejilerinin geliştirilmesi ve uygulanması için spesifik öneriler sunar.

Araştırma, çağdaş örgütlerde bilgi yönetimi ve inovasyon performansı arasındaki ilişkiyi analiz etmek ve geliştirmek için yapılandırılmış bir yaklaşım sunarak hem teorik anlayışa hem de pratik uygulamaya katkıda bulunmaktadır. Akademisyenler için gelecekteki araştırmalar için teorik bir temel sağlamak ve ampirik araştırma için umut verici yollar belirlemek hedeflenmiştir. Uygulayıcılar için ise, örgütlerin bilgi yönetimi ve inovasyon yeteneklerini değerlendirmek ve geliştirmek için pratik bir çerçeve sunulmaya çalışılmıştır.

Önerilen kavramsal çerçevenin farklı örgütsel bağlamlar ve endüstriler genelinde ampirik doğrulaması, bilgi yönetimi uygulamalarının inovasyon sonuçlarını etkilediği spesifik mekanizmaların araştırılması ve gelişen teknolojilerin bilgi odaklı inovasyonu kolaylaştırmadaki rolünün keşfi dahil olmak üzere gelecekteki araştırma yönleri önerilebilir. Çalışma, modern iş ortamında örgütsel inovasyonu yönlendirmede ve rekabet avantajını sürdürmede etkili bilgi yönetiminin artan önemini vurgulayarak sonuçlanmaktadır.

REFERENCES

Ahmad, M., Bakar, J. A. A., Yahya, N. I., Yusof, N. and Zulkifli, A. N. (2011). Effect of Demographic Factors on Knowledge Creation Processes in Learning Management System Among Postgraduate Students. IEEE Conference on Open Systems (p. 47-52). IEEE. https://ieeexplore.ieee.org/document/6079250

Al Mehairi, H. A. and Zakaria, N. (2014). Understanding Organizational Culture for Effective Knowledge Sharing Behaviors in The Workplace. *Organizational Cultures: An International Journal*, 13(3), 33-52.

Al Nuaimi, F. M. S., Singh, S. K. and Ahmad, S. Z. (2024). Open Innovation in Smes: A Dynamic Capabilities Perspective. *Journal of Knowledge Management*, 28(2), 484-504.

Alqahtani, A., Hawryszkiewycz, I. and Erfani, E. (2023). Relationship Between Knowledge Creation and Open Innovation Applied Through Public Open Innovation Platforms. *Electronic Journal of Knowledge Management*, 21(1), 73-86.

Arasaki, P. K., Steil, A. V. and Santos, N. D. (2017). Sistemas De Memória Em Organizações Intensivas Em Conhecimento. *Um Estudo De Caso*. Espacios, 38(4), 1.

Argote, L. and Miron-Spektor, E. (2011). Organizational Learning: From Experience to Knowledge. *Organization Science*, 22(5), 1123-1137.

Asprino, L. (2016). Addressing Knowledge Integration with a Frame-Driven Approach. European Knowledge Acquisition Workshop, (p. 205-210). Cham: Springer International Publishing.

Bagherzadeh, M., Markovic, S. and Bogers, M. (2019). Managing Open Innovation: A Project-Level Perspective. *IEEE Transactions on Engineering Management*, 68(1), 301-316.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. https://doi.org/10.1177/014920639101700108

Cheng, C. C. and Chen, J. S. (2013). Breakthrough Innovation: The Roles of Dynamic Innovation Capabilities and Open Innovation Activities. *Journal of Business & Industrial Marketing*, 28(5), 444-454.

Chesbrough, H. W. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*, Boston: Harvard Business Press.

Cruywagen, M., Swart, J. and Gevers, W. (2013). The Role of a Knowledge-Centric Capability in Innovation: A Case Study. Sheryl Buckley and Maria Jakovljevic (Ed.),

Knowledge Management Innovations for Interdisciplinary Education: Organizational Applications, (p. 298-314). Hershey, Pennsylvania: IGI Global.

Del Giudice, M. and Cillo, V. (2022). The Spiral of Knowledge Creation in A Dynamic and Evolving Business Environment. Jin Chen and Ikujiro Nonaka (Ed.), *The Routledge Companion to Knowledge Management*, (p. 15-32). New York: Routledge.

Dibiaggio, L. and Nasiriyar, M. (2009). Knowledge Integration and Vertical Specialization in The Semiconductor Industry. *European Management Review*, 6(4), 265-276.

Easa, N. and Fincham, R. (2011). The Application of The SECI Model in Cross-Cultural Contexts.12th *European Conference on Knowledge Management*. University of Passau. Germany.

Ghasemzadeh, P., Nazari, J. A., Farzaneh, M. and Mehralian, G. (2019). Moderating Role of Innovation Culture in The Relationship Between Organizational Learning and Innovation Performance. *The Learning Organization*, 26(3), 289-303.

Gold, A. H., Malhotra, A. and Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems*, 18(1), 185-214. https://doi.org/10.1080/07421222.2001.11045669

Grant, R. M. (1996). Toward A Knowledge-Based Theory of The Firm. *Strategic Management Journal*, 17(S2), 109-122. https://doi.org/10.1002/smj.4250171110

Grant, R. M. (1996i). Prospering In Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration. *Organization Science*, 7(4), 375-387. https://doi.org/10.1287/orsc.7.4.375

Hall, J. H., Sarkani, S. and Mazzuchi, T. A. (2011). Impacts Of Organizational Capabilities in Information Security. *Information Management & Computer Security*, 19(3), 155-176.

Huang, W. (2006). Acquiring Innovative Knowledge Via Effective Process Management. 2006 IEEE International Conference on Management of Innovation and Technology (Vol. 1, pp. 384-388). IEEE.

Kahrens, M., Früauff, D.H. (2018). Critical Evaluation of Nonaka's SECI Model. In: Syed, J., Murray, P., Hislop, D., Mouzughi, Y. (eds) The Palgrave Handbook of Knowledge Management. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-71434-9_3

Kaplan, R. S. and Norton, D. P. (2004). *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*. Boston: Harvard Business Press.

Kayworth, T. and Whitten, D. (2010). Effective Information Security Requires a Balance of Social and Technology Factors. *MIS Quarterly Executive*, 9(3), 2012-52.

Kogut, B. and Zander, U. (1992). Knowledge of the Firm, Combinative Capabilities, And the Replication of Technology. *Organization Science*, 3(3), 383-397. https://doi.org/10.1287/orsc.3.3.383

Kozierkiewicz, A., Du Nguyen, V. and Pietranik, M. (2018). The Assessing of Influence of Collective Intelligence on The Final Consensus Quality. In Intelligent Information and Database Systems: 10th Asian Conference, ACIIDS 2018, Dong Hoi City, Vietnam, March 19-21, 2018, Proceedings, Part I 10 (pp. 15-24). Springer International Publishing

Kucharska, W. and Wildowicz-Giegiel, A. (2017). Company Culture, Knowledge Sharing and Organizational Performance. The Employee's Perspective. Proceedings of the 18th European Conference on Knowledge Management (Vol. 1, pp. 524-531).

Laitinen, J. A., Pawlowski, J. M., and Senoo, D. (2015). A Study on The Influence of National Culture on Knowledge Sharing. Knowledge Management in Organizations: 10th International Conference, KMO 2015, Maribor, Slovenia, Proceedings 10 (p. 160-175). Springer International Publishing.

Levinthal, D. A. and March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*, 14(S2), 95-112. https://doi.org/10.1002/smj.4250141009

Loonam, J., Zwiegelaar, J., Kumar, V. and Booth, C. (2020). Cyber-Resiliency for Digital Enterprises: A Strategic Leadership Perspective. *IEEE Transactions on Engineering Management*, 69(6), 3757-3770.

Marcelino-Jesus, E., Sarraipa, J., Antão, M., Jardim-Goncalves, R., and Mendonça da Silva, J. (2012). Methodology For the Economic Viability of Companies in The Semantic Adaptation of Information Systems. In ASME International Mechanical Engineering Congress and Exposition (Vol. 45196, pp. 241-249). American Society of Mechanical Engineers.

Nonaka, I. and Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.

Nonaka, I., Yamaguchi, I. (2022). The SECI Model: Knowledge Creation in the Cycle of Subjectivity and Objectivity. In: Management by Eidetic Intuition. The Nonaka Series on Knowledge and Innovation. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-16-6851-7_10

Piezunka, H. and Schilke, O. (2023). The Dual Function of Organizational Structure: Aggregating and Shaping Individuals' Votes. *Organization Science*, 34(5), 1914-1937.

Polanyi, M. (1966). *The Tacit Dimension*. Chicago: University of Chicago Press.

Porter, M. E. (1985). Technology and Competitive Advantage. *Journal of Business Strategy*, 5/3, 60-78.

Prencipe, A. (2003). Corporate Strategy and Systems Integration Capabilities: Managing Networks in Complex Systems Industries. *R&D Management*, 33(6), 614-618. https://doi.org/10.1093/0199263221.003.0007

Raisch, S., and Birkinshaw, J. (2008). Organizational Ambidexterity: Antecedents, Outcomes, And Moderators. *Journal of Management*, 34(3), 375-409.

Rihayana, I. G., Supartha, I., Sintaasih, D. K. and Surya, I. B. K. (2023). Rethinking Open Innovation from Resources Based View and Dynamic Capability Perspective: Determinants and Its Consequences. *Quality-Access to Success*, 24(192).

Robinson, N. P. and Ensign, P. C. (2009). Effective Stakeholder Knowledge Sharing for Effective Organizational Memory. Nicholas P. Robinson, Prescott C. Ensign (Ed.), *Building Organizational Memories: Will You Know What You Knew?* in (p. 30-43). New York: IGI Global.

Sebastian Ion, C. and Eduard Gabriel, C. (2024). The Influence of Organizational Learning Ambidexterity on Process Innovation Performance: The Role of KM Capability. *Knowledge Management Research & Practice*, 1-21.

Shao, Z., Feng, Y. and Liu, L. (2012). The Fit Between IS Leadership Style and Business Strategy to Achieve Business-IS Strategic Alignment. *Journal of Convergence Information Technology*, 7(5).

Shu, W. and Lin, Ch. (2014). Structured Knowledge Management – Using Teamspirit to Facilitate Organizational Learning. PACIS 2014 Proceedings. 172. http://aisel.aisnet.org/pacis2014/172

Siachou, E. (2012). The Facilitating Role of Knowledge Processors on Knowledge Costs: A Differentiated Perspective on Knowledge Integration Within Action Teams. Proceedings of the European Conference on Knowledge Management, ECKM.

Silvius, A. G. (2011). The Relationship between Business Strategy, IT Strategy and Alignment Capability. A.J. Gilbert Silvius (Ed.), *Enterprise IT Governance, Business Value and Performance Measurement* in (p. 130-142). New York: IGI Global.

Spender, J. C. (1996). Making Knowledge the Basis of a Dynamic Theory of The Firm. *Strategic Management Journal*, 17(S2), 45-62. https://doi.org/10.1002/smj.4250171106

Szilágyi, G. A. (2017). Exploration Knowledge Sharing Networks Using Social Network Analysis Methods. *Economics & Sociology*, 10(3), 179-191.

Teece, D. J. (1986). Profiting From Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy. *Research Policy*, 15(6), 285-305

Teece, D. J. (1998). Capturing Value from Knowledge Assets: The New Economy, Markets for Know-How, And Intangible Assets. *California Management Review*, 40(3), 55-79. https://doi.org/10.2307/41165943

Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Micro foundations of (Sustainable) Enterprise Performance. *Strategic Management Journal*, 28(13), 1319-1350.

Teubner, A. and Mocker, M. (2007). Contents Of Information Strategies in Practice. Association for Information Systems, 13th Americas Conference on Information Systems, AMCIS 2007: Reaching New Heights Volume 6, Pages 3709 – 3719.

Tsoukas, H. (1996). The Firm as A Distributed Knowledge System: A Constructionist Approach. *Strategic Management Journal*, 17(S2), 11-25. https://doi.org/10.1002/smj.4250171104

Tu, C. Z., Yuan, Y., Archer, N. and Connelly, C. E. (2018). Strategic Value Alignment for Information Security Management: A Critical Success Factor Analysis. *Information & Computer Security*, 26(2), 150-170.

Whittle, A., Vaara, E. and Maitlis, S. (2023). The Role of Language in Organizational Sensemaking: An Integrative Theoretical Framework and An Agenda for Future Research. *Journal of Management*, 49(6), 1807-1840.

Xu, H. (2009). Study Of SECI And Organizational Strategy on Knowledge Sharing for Collaborative Product Design. 2009 International Conference on Computational Intelligence and Software Engineering (pp. 1-4). IEEE.

Yayla, A. A. and Hu, Q. (2012). The Impact Of IT-Business Strategic Alignment on Firm Performance in A Developing Country Setting: Exploring Moderating Roles of Environmental Uncertainty and Strategic Orientation. *European Journal of Information Systems*, 21(4), 373-387.

Yu, C. P., Zhang, Z. G. and Shen, H. (2017). The Effect of Organizational Learning and Knowledge Management Innovation on Smes' Technological Capability. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8), 5475-5487.

Zahra, S. A. and George, G. (2002). Absorptive Capacity: A Review, Reconceptualization, And Extension. *Academy of Management Review*, 27(2), 185-203.

Zhang, Q. and Kosaka, M. (2013). SECI model and KIKI model on knowledge creation, 2013 10th International Conference on Service Systems and Service Management, Hong Kong, China, pp. 102-106, doi: 10.1109/ICSSSM.2013.6602626

Zhuang, B. and Tongxin, Z. (2010). The Strategy of Knowledge Management and Knowledge Creation. In 2010 3rd International Conference on Information Management, Innovation Management and Industrial Engineering (Vol. 1, pp. 262-265). IEEE. https://ieeexplore.ieee.org/document/5694399

KATKI ORANI / *CONTRIBUTION RATE*	**AÇIKLAMA / *EXPLANATION***	**KATKIDA BULUNANLAR / *CONTRIBUTORS***
Fikir veya Kavram / *Idea or Notion*	Araştırma hipotezini veya fikrini oluşturmak / *Form the research hypothesis or idea*	Hasibe AYSAN
Tasarım / *Design*	Yöntemi, ölçeği ve deseni tasarlamak / *Designing method, scale and pattern*	Hasibe AYSAN
Veri Toplama ve İşleme / *Data Collecting and Processing*	Verileri toplamak, düzenlenmek ve raporlamak / *Collecting, organizing and reporting data*	Hasibe AYSAN
Tartışma ve Yorum / *Discussion and Interpretation*	Bulguların değerlendirilmesinde ve sonuçlandırılmasında sorumluluk almak / *Taking responsibility in evaluating and finalizing the findings*	Hasibe AYSAN
Literatür Taraması / *Literature Review*	Çalışma için gerekli literatürü taramak / *Review the literature required for the study*	Hasibe AYSAN