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## **INFLUENCE OF PROFESSIONAL COMMUNITIES ON KNOWLEDGE EXCHANGE IN INNOVATION PROCESSES**

In the context of rapid digital transformation, market globalization, and growing competition, effective knowledge exchange is becoming a key resource for the development of innovation processes in any modern organization. Innovation depends less and less on individual talent and increasingly on collective interaction – the ability of employees to create, transform, and disseminate knowledge within professional networks. Professional communities –both formal (industry associations, scientific societies, corporate professional networks) and informal (communities of practice, professional online networks, expert groups) – are emerging as important social infrastructures that influence the speed and quality of idea generation, problem-solving, and innovation implementation.

Contemporary research shows that it is precisely through interaction within professional communities that organizations gain access to tacit knowledge, which cannot be transferred through formal documentation but is critically important for creativity, adaptability, and breakthrough innovations. Such networks foster trust, synchronization of experience, and rapid diffusion of best practices, significantly accelerating innovation cycles. Moreover, professional communities provide platforms for interdisciplinary interaction, strengthening cross-functional knowledge exchange – one of the main drivers of innovation in high-tech and creative industries.

At the same time, despite the clear role of such communities, academic literature still lacks clarity regarding the mechanisms through which they influence knowledge exchange: Which factors support effective knowledge circulation? How are informal professional networks formed? What combination of social, organizational, and individual factors ensures the success of innovation processes? The role of digital professional platforms becomes

particularly relevant, as they expand communication boundaries and reshape how specialists interact across sectors.

In the Ukrainian context, this research is especially important because post-war reconstruction and economic development critically depend on the creation of innovation ecosystems capable of rapidly generating and implementing new solutions. Professional communities can act as catalysts for developing human capital, integrating into global markets, and accelerating knowledge exchange across educational, scientific, business, and public sectors.

The concept of communities of practice (CoP) (Lave & Wenger, 1991) [1] defines these communities not as formal organizational units but as social formations in which participants develop shared practice through ongoing interaction – a learning mechanism that transfers both explicit and tacit knowledge. Within CoP, the “enterprise” of learning (shared activity uniting the community of practitioners) unfolds: members exchange experience, create a shared language of practice, and build collective identities that fuel innovation.

According to J. Tidd (2006), the concept of professional communities rests on two main principles: knowledge-based activity and cognition, and the nature of enterprise activity. The cognition that underlies corporate learning developed as a response to knowledge barriers. Corporate learning challenges traditional, classical views of knowledge based on “the dichotomy between thinking and acting, where thinking and action are equated with mental activity, development, and the use of knowledge to achieve organizational goals” [2].

The SECI model (Socialization-Externalization-Combination-Internalization) [3] (Nonaka & Takeuchi, 1995) [4] describes the mechanism of converting "tacit-explicit-tacit" knowledge and highlights the role of “Ba” – the shared context/space where knowledge is created. This model provides a framework for understanding how creativity-driven knowledge cycles operate within professional communities, forming the foundation of innovation (Nonaka, Toyama & Konno, 2000) [5].

Empirical studies confirm that CoP and professional networks are positively associated with innovation performance. A review by Castaneda & Cuellar (2020) shows that knowledge sharing enhances product and process innovation, though the effect depends on the type of knowledge (tacit vs

explicit) and the organization's tools and performance measurement systems. Research focusing on CoP in large organizations (including online forums) highlights the need for facilitation, leadership, and clear feedback mechanisms for communities to generate practical innovations (e.g., Telecom, IT, R&D cases) [4]. Studies also indicate differential effects: task-oriented CoP (focused on problem-solving) are more productive for innovation than purely social communities, though the latter remain essential for maintaining trust and motivation [6].

Findings from our own studies (Vartanova & Bezsmertna, 2006) [7] show that professional communities not only support knowledge transfer but may also hinder it by creating closed "enclaves" of knowledge, which negatively affects innovation implementation. Therefore, the influence of professional communities on knowledge exchange processes is ambiguous. The empirical research on the functioning of professional communities in Ukrainian industrial enterprises included an analysis of community characteristics (types of communities, shared knowledge, values, origins). Their activity was examined within the context of innovation processes and innovation-related goals. The study assessed professional community activity across the following dimensions [7]:

- organizational context: innovations within the enterprise, fragmented knowledge, and professional communities with complex structures;
- influence of professional communities on knowledge exchange in innovation processes;
- barriers to knowledge sharing: conflicts among functional communities;
- ambiguous effects of professional communities;
- loyalty vs resistance of professional communities;
- other challenges in knowledge exchange among community members.

The findings indicate that innovation processes and professional communities are closely interrelated. Importantly, not only do professional communities influence innovation dynamics, but the nature of innovation processes also shapes how professional communities evolve. One of the most significant effects of professional communities on innovation lies in their influence on members' attitudes, values, and behaviors, which manifests in two directions.

First, communities foster a sense of identity and loyalty, shaping members' attitudes toward innovation. This determines whether communities support or resist innovation, which in turn affects the integration of professional communities and the quality of organizational knowledge ecosystems. Second, communities shape attitudes toward knowledge exchange both within and beyond the enterprise. If employees are unwilling to share knowledge, perceive changes and innovations negatively, or if relations among communities are antagonistic and competitive, this indicates that the community is not performing its intended function. Antagonistic relationships hinder knowledge exchange due to fears of losing autonomy or authority and internal competition for resources, which restricts or prevents the transfer of innovative knowledge.

In some cases, professional communities perceive innovations as threats to their stable functioning because any change may undermine the community's foundation – its knowledge, identity, and values. For instance, the introduction of a unified information system may be seen as a threat to independence and autonomy, which many communities value highly. This occurs because such systems require higher levels of knowledge standardization than historically developed and limit the capacity of units to respond autonomously to local market needs. As a result, innovations may be perceived as a threat to autonomous communities through the “devaluation” of their knowledge and its replacement with standardized, formalized corporate-level knowledge, reducing the ability to develop local innovations. Ultimately, if innovations are perceived as a threat, they weaken community identity and hinder innovation implementation.

Maintaining a sense of identity among community members is essential because it influences both the ability to generate and share knowledge and the preservation of autonomy and value systems within knowledge communities. By undermining community values and knowledge, innovations may weaken the bonds that sustain community identity.

Thus, the relationship between innovation implementation and professional communities should be viewed as a two-way process: professional communities influence innovation dynamics, and innovations and organizational changes transform and develop knowledge communities. The mutual influence

of professional communities and enterprise innovation processes is illustrated in Figure 1.

The results of the conducted study on the influence of professional communities on knowledge exchange within the innovation processes of enterprises allow us to draw the following conclusions. First, the activity of professional communities serves as an effective mechanism for knowledge and information transfer in innovation processes due to the formation of a sense of identity and loyalty among community members, which facilitates the acquisition and exchange of knowledge. At the same time, members of a community may compete with other communities, create antagonistic relationships, or resist innovation-related changes if these contradict the interests of their community, which can hinder cross-functional knowledge exchange and slow down innovation.



Figure 1. Mutual influence of professional communities and innovation processes of companies

Second, there is a reciprocal relationship between the activities of professional communities and the innovation processes of an enterprise: professional communities accelerate knowledge sharing and transfer within innovation processes, while innovations influence the formation of professional

communities and determine the nature of knowledge acquisition and exchange among their members.

### **References**

1. Lave J.C., Wenger E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press, 1991. № 36. P. 36-42.
2. Tidd J. (2006). *From strategic management to strategic competence: Measuring technological, Market and Organization Innovation (2nd Edition)*. Imperial College Press: London, 2006. 437 p.
3. SECI Model of Knowledge Creation: Socialization, Externalization, Combination, Internalization. Available at: [https://ascnhighered.org/ASCN/change\\_theories/collection/seci.html](https://ascnhighered.org/ASCN/change_theories/collection/seci.html)
4. Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press: *New York, NY*.
5. Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and leadership: a unified model of dynamic knowledge creation. *Long Range Planning*, 33(1), 5-34.
6. Castaneda, D., & Cuellar, S. (2020). Knowledge sharing and innovation: A systematic review. *Knowledge and Process Management*. 2020. Vol. 27, Is. 3. P. 159-173. Available at: [https://onlinelibrary.wiley.com/doi/10.1002/kpm.1637?utm\\_source](https://onlinelibrary.wiley.com/doi/10.1002/kpm.1637?utm_source)
7. Vartanova O.V., Bezsmertna V.V. Vplyv profesiinykh spilnot na obmin znanniamy v innovatsiinykh protsesakh pidpryiemstva [The impact of professional communities on knowledge exchange in enterprise innovation processes]. *Cotsialno-trudovi vidnosyny: teoriia ta praktyka : zb. nauk. pr., DVNZ «Kyiv. nats. ekon. un-t im. Vadyrna Hetmana»*; red.: A. M. Kolot ta in. Kyiv : KNEU, 2012. № 1. S. 95–99.