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INNOVATIONS AS A WAY TO ADAPT TO UNCERTAINTY CONDITIONS

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Abstract. The paper proves innovation is crucial for businesses to navigate crises by fostering adaptability and resilience. It formulates key principles of using innovations as a way to adapt to uncertainty conditions, such as flexibility, risk forecasting, and collaboration, while digital transformation, AI, and transformative learning drive sustainable growth and innovation, entrepreneurial leadership.

Key words. Innovations, innovation activity, management of innovation activity, uncertainty, business model, flexibility, entrepreneurial leadership.

Innovations play a crucial role in helping companies navigate uncertainty by fostering adaptability and resilience. In times of uncertainty, such as Russian and Ukrainian war, the COVID-19 pandemic, businesses that embrace innovation can not only survive but thrive by transforming their operational practices and business models [1].

Companies that implement innovative strategies can quickly adjust to changing market conditions, which is essential during crises. The principles of managing innovative activities of enterprises in extreme situations emphasize the importance of effective response to crises and maintaining long-term competitiveness. The main principles include [2; 3]:

1. Flexibility and adaptability. A company's ability to quickly reorganize its resources and strategies in response to external challenges is critical to successfully responding to unforeseen circumstances. A culture of innovative thinking and support for change helps enterprises quickly rebuild their activities.

2. Risk forecasting. An important part of innovation management is the identification of potential threats and the development of strategies to minimize them. This includes the development of crisis scenarios and early warning systems that help businesses prepare for extreme conditions.

3. Reaction speed. Rapid decision-making and resource mobilization are critical during crises. Businesses that have proven procedures and flexible technologies for rapid response are able to significantly reduce negative consequences.

4. Entrepreneurial leadership. It is vital in innovation during uncertain conditions because it promotes adaptability, risk-taking, and proactive decision-making. Leaders with an entrepreneurial mindset can identify emerging opportunities, swiftly pivot strategies, and foster a culture of creativity and resilience. By empowering teams to experiment and embrace change, entrepreneurial leaders enable organizations to navigate unpredictability, drive innovation, and maintain competitiveness even in challenging environments. Their ability to balance risk and reward while inspiring others is key to sustaining growth and innovation amidst uncertainty.

5. Cooperation and partnership. Joining forces with other businesses, government and scientific institutions can contribute to the creation of new solutions to counter extreme challenges. This allows the use of common resources and knowledge for innovative development.

6. Focus on sustainability. Businesses that invest in sustainable technologies can more easily survive crises and recover quickly. Sustainability includes diversifying resources, building alternative supply chains and creating a culture of readiness for change.

7. Innovative culture. Encouraging innovation at all levels of the organization

promotes rapid development of new approaches and solutions. Enterprises that actively support the innovative initiatives of employees gain an advantage in crisis situations thanks to creativity and the attraction of new ideas.

8. Continuous learning. Continuous development of employees' skills helps the enterprise to adapt to changing conditions. Systematic training and development of personnel provide the enterprise with the ability to effectively respond to challenges and implement innovations.

Thus, enterprises that adhere to these principles are able to effectively manage their innovative activities in extreme situations, ensuring long-term development and stability in the market.

Today, digital transformation and artificial intelligence have opened avenues for new business models, enabling firms to respond effectively to disruptions. Digital transformation, artificial intelligence (AI), and societal challenges play the pivotal role in fostering both opportunities and pressures for innovation. As these forces reshape the work environment, they necessitate rapid and flexible responses, highlighting the growing importance of transformative and employee-driven learning in the creation of innovation. Transformative learning, which involves deep, critical reflection and a willingness to question assumptions, is directly linked to breakthroughs in innovation, pushing individuals and organizations to adapt to new situations and foster creative solutions.

Transformative learning contrasts with adaptive learning, noting that while adaptive learning focuses on mastering existing practices, transformative learning challenges existing frameworks and drives change. Both forms of learning are essential for innovation, with transformative learning playing a more significant role in creating entirely new concepts and adaptive learning facilitating the integration of existing knowledge into new contexts. Effective leadership plays a critical role in promoting both types of learning, with management styles that support openness, critical reflection, and empowerment fostering a culture of continuous development and innovation.

As digital transformation and AI continue to reshape industries, transformative

learning will be crucial for personal and organizational growth. It equips individuals to manage change, embrace creativity, and engage in collaborative, interdisciplinary work, ultimately enabling them to drive innovation in an ever-changing environment [4].

Identifying reasons for consumer resistance to innovation is vital. Factors such as perceived risks and complexity can hinder acceptance, necessitating targeted strategies to mitigate these concerns [5].

It's interesting to track the gender dynamics in innovation. Research of Beglaryan M., Drampyan A. and Sargsyan P. indicates that male managers may exhibit a higher propensity for innovation under uncertainty, highlighting the importance of leadership in fostering an innovative culture [6].

While innovation is essential for adaptation, it is also important to recognize that not all innovations will be successful. Companies must balance innovation with consumer acceptance and market readiness to ensure sustainable growth.

Thus, in times of crisis, such as during wars or pandemics, innovation plays a vital role in enabling companies to navigate uncertainty and maintain competitiveness. By fostering flexibility, risk forecasting, and collaboration, basing on entrepreneurial leadership, businesses can quickly adapt to shifting market conditions and mitigate the negative effects of extreme situations. Digital transformation and artificial intelligence further drive innovation, pushing companies to rethink their operations and embrace new business models. Effective leadership and a culture of continuous learning—both adaptive and transformative—are essential in fostering creativity and resilience in the face of challenges.

However, while innovation is crucial for adaptation and growth, it must be balanced with consumer acceptance and market readiness. Not all innovations will succeed, and companies must be mindful of perceived risks and complexity that can create resistance. By addressing these challenges strategically and ensuring that innovation is aligned with market demands, businesses can drive sustainable development and long-term success in an increasingly unpredictable world.

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