

SEAM-MODEL AS A PLATFORM FOR INNOVATIVE DIGITAL LEARNING AND CONTINUOUS PROFESSIONAL DEVELOPMENT OF FUTURE MANAGERS IN SOCIETY 5.0

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Abstract. The integration of digital technologies into education and business has the potential to revolutionize the way we learn and work. The SEAM (Socio-Economic Approach to Management)-Model, a framework for innovative digital learning, offers a promising approach to enhance the professional development of future managers. By leveraging digital tools and techniques, this model can foster creativity, critical thinking, and problem-solving skills, equipping future leaders with the necessary competencies to navigate the complexities of the 21st century. This section of the monograph explores the potential of the SEAM-Model to address the evolving needs of modern organizations and contribute to the overall development of society 5.0.

Keywords: SEAM-model, digital learning, professional development, future managers, innovation, technology, education.

The rapidly evolving landscape of business and technology demands a new generation of leaders equipped with a unique blend of hard and soft skills. While technical expertise remains crucial, the ability to effectively communicate, collaborate, innovate, and adapt to change has become increasingly essential. The SEAM-model, a comprehensive framework for education and development, offers a valuable approach to cultivating these soft skills in future managers.

By integrating social, emotional, and cognitive dimensions, the SEAM-model provides a holistic approach to learning and development. It empowers individuals to develop essential soft skills such as:

- emotional intelligence as the ability to understand and manage one's own emotions, as well as the emotions of others;
- critical thinking as the ability to analyze information, evaluate evidence, and make informed decisions;
- creativity as the ability to generate new ideas, think outside the box, and solve problems in innovative ways.

These soft skills are crucial for success in the modern workplace. They enable individuals to adapt to change, build strong relationships, and drive innovation. By focusing on the development of these skills, the SEAM-model can help prepare future managers for the challenges and opportunities of the 21st century.

Author explored (tables 1-3) how the SEAM-model can be applied to develop these soft skills in various professional contexts and systematized the importance of integrating digital technologies into the learning process and how this can enhance the development of soft skills as hard\professional competences.

Table 1. Developing Emotional Intelligence within the SEAM-Model

SEAM-Model Component	Soft Skill	Practical Tasks	Expected Outcome
Social Skills	Empathy, self-awareness	Role-playing exercises, self-reflection, feedback	Increased self-awareness, ability to understand others' emotions
Critical Thinking	Self-assessment, stress management	Emotional journaling, mindfulness techniques	Improved self-esteem, ability to manage stress effectively
Creativity	Emotional integration, openness to new experiences	Artistic activities, brainstorming	Increased emotional flexibility, ability to adapt to change

Source. Analyzed and systematized by the author based on [1] - [3]

Table 1 highlights the pivotal role of emotional intelligence in shaping effective future managers. By focusing on the SEAM-model's components of social awareness, self-regulation, and relationship management, individuals can develop a profound understanding of their own emotions and the emotions of others. This emotional intelligence, when cultivated, transcends the realm of a soft skill and becomes a foundational professional competency.

For future managers, emotional intelligence is not merely a personal advantage but a strategic asset. It equips them to build strong relationships, resolve conflicts effectively, and inspire their teams. By understanding the nuances of emotional expression and response, managers can create a positive and productive work environment.

The SEAM-model serves as a foundation for analyzing the dynamics of emotional intelligence development, as depicted in Figure 1. This model allows us to monitor changes in each component of emotional intelligence and evaluate their overall impact on personal effectiveness. By integrating SEAM-principles, the analysis becomes more focused on practical outcomes, aligning individual growth with professional competencies critical for future leaders.

Figure 1 illustrates the dynamics of emotional intelligence development from 2022 to 2027. The creation of this graph was necessary to visualize and analyze the trends in various components of emotional intelligence over time. By plotting the scores for self-awareness, self-regulation, empathy, and social skills, the graph provides a clear overview of how these competencies have evolved.

The graph reveals a consistent upward trend in all four components of emotional intelligence over the six-year period. Self-awareness consistently demonstrates the highest scores, indicating a growing understanding of one's emotions and how they influence behavior. Self-regulation and empathy also show significant improvement, suggesting that individuals are becoming better at managing their emotions and understanding the perspectives of others. Social skills, while exhibiting a positive trend, seem to have a slightly slower rate of growth compared to the other components. This aligns with the SEAM-model's insights,

emphasizing the need for targeted strategies to enhance interpersonal skills as part of a holistic approach to emotional intelligence development.

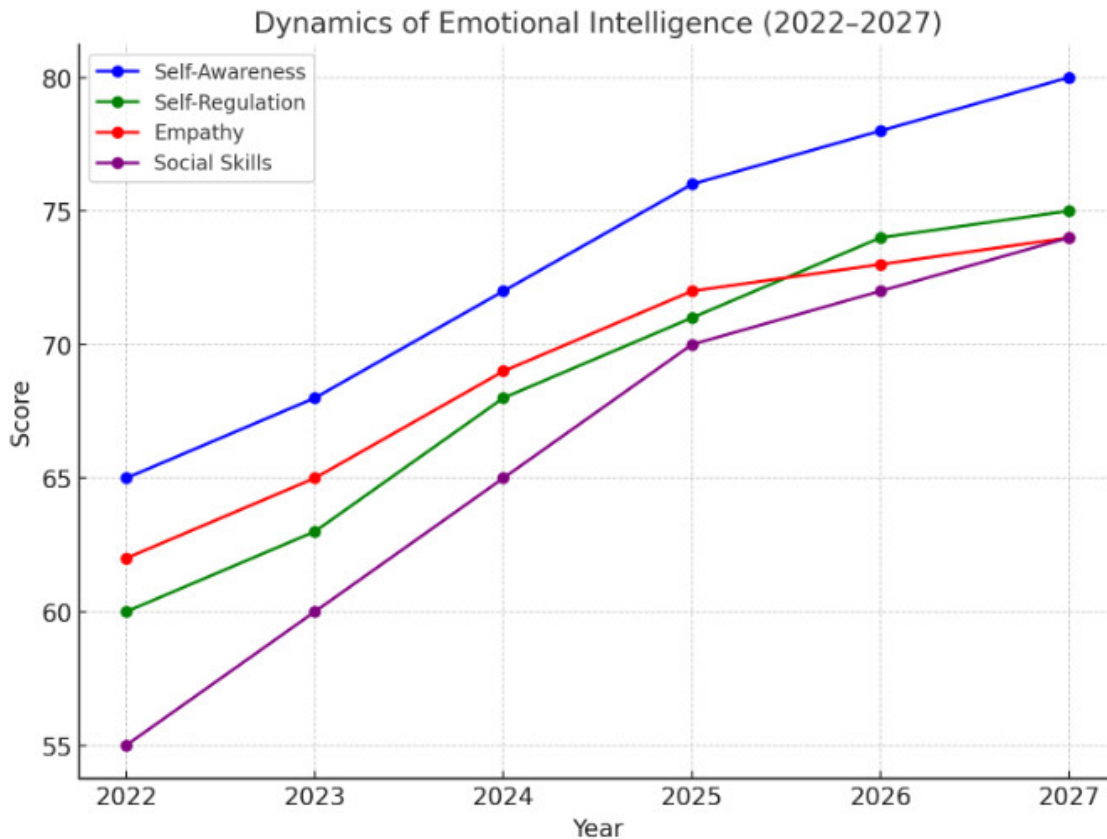


Fig. 1. Dynamics of Emotional Intelligence Components (Self-Awareness, Self-Regulation, Empathy, Social Skills) over the period 2022-2027
Source. Author's framework

To foster the development of emotional intelligence as a core competency for future managers, organizations should:

- integrate emotional intelligence training into leadership development programs – provide targeted training that focuses on self-awareness, empathy, and relationship management;
- promote a culture of emotional intelligence – encourage open communication, empathy, and respect within the organization to create a supportive environment for emotional growth;
- implement 360-degree feedback – collect feedback from peers, subordinates, and supervisors to provide individuals with a comprehensive understanding of their emotional intelligence strengths and areas for improvement.

While Table 1 delves into the development of emotional intelligence, Table 2 shifts the focus to another critical component of the SEAM-model: cognitive skills. By examining the interplay between cognitive skills such as critical thinking,

problem-solving, and decision-making, and emotional intelligence, we can gain a deeper understanding of how these competencies work in tandem to drive success.

Table 2 provides a systematic analysis of the relationship between cognitive skills and emotional intelligence, highlighting the importance of both for effective leadership and decision-making in complex organizational environments.

Table 2. Developing Creativity within the SEAM-Model

SEAM-Model Component	Soft Skill	Practical Tasks	Expected Outcome
Creativity	Idea generation, problem-solving, original thinking	Brainstorming, mind mapping, design thinking	Ability to generate new ideas, think outside the box
Critical Thinking	Idea evaluation, risk assessment	Case studies, business plan development	Ability to evaluate ideas, make informed decisions
Social Skills	Collaboration, communication of ideas	Teamwork, presentations	Ability to collaborate effectively, persuade others

Source. Analyzed and systematized by the author based on [4] - [5]

Table 2 demonstrates how the SEAM-model can be leveraged to nurture creativity and critical thinking. These two cognitive skills are increasingly recognized as essential professional competencies for innovation and problem-solving in modern organizations.

Figure 2 illustrates how the SEAM-model enhances the innovative potential of future managers during their professional development. The SEAM-model integrates socio-economic insights with a collaborative and problem-solving focus, creating an environment where managerial skills are nurtured alongside innovative thinking. This holistic approach ensures that future leaders are equipped to generate transformative ideas and implement them effectively.

Figure 2 highlights the significant impact of the SEAM-model on the innovative capacities of aspiring managers. The steady growth from 45 innovative ideas in 2022 to 85 in 2024 and the projected 95 ideas by 2027 underscores the model's ability to drive creative thinking and strategic decision-making. This upward trend demonstrates how the SEAM-framework empowers future managers to consistently deliver innovative solutions.

The SEAM-model's focus on fostering socio-economic awareness, critical thinking, and collaborative engagement ensures that these future managers are prepared to navigate complex organizational challenges. By leveraging these skills, they can implement transformative innovations, positioning themselves as effective leaders in dynamic and competitive industries.

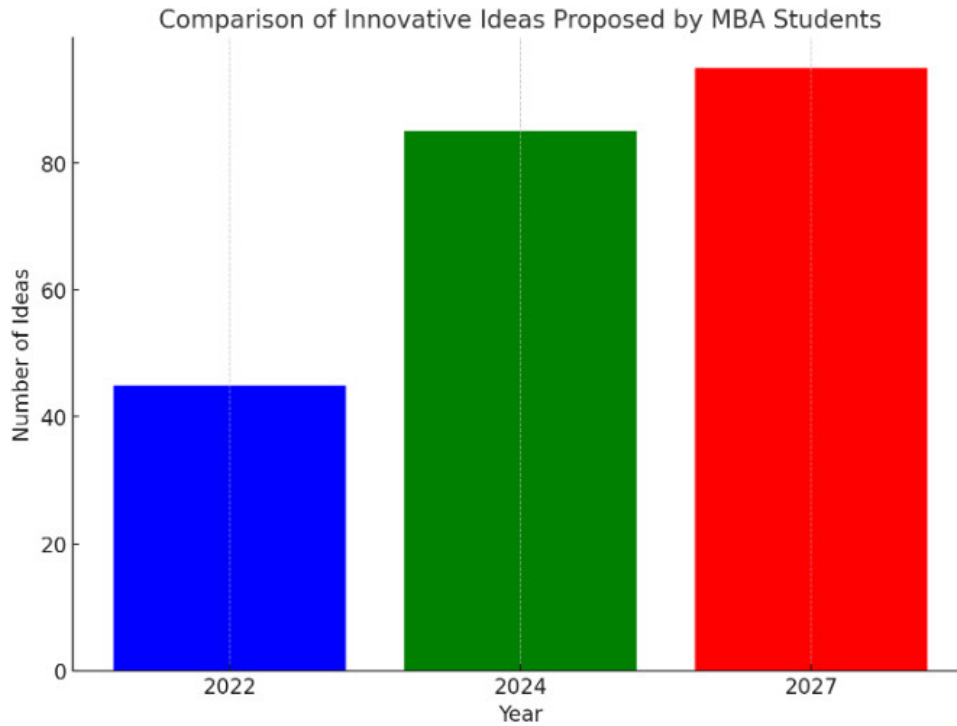


Fig. 2. Comparison of the number of innovative ideas proposed by MBA managers in 2022-2027

Source. Author's framework

By engaging in activities such as brainstorming and design thinking, individuals can develop the ability to generate novel ideas and explore unconventional solutions. This creative mindset is invaluable for driving innovation and adapting to change in a rapidly evolving business environment.

Furthermore, the development of critical thinking skills, such as analysis, evaluation, and problem-solving, empowers individuals to make informed decisions and solve complex problems. By applying critical thinking to creative ideas, individuals can identify the most promising opportunities and mitigate potential risks.

While creativity and critical thinking are essential for innovation, their effective application often requires strong soft skills. According to the SEAM-model, fostering these competencies involves aligning strategic goals with an enabling environment, actionable frameworks, and continuous feedback loops. Table 3 delves into the role of professional skills in fostering collaboration, effective communication, and leadership, highlighting how SEAM-components can guide the development of these abilities. By integrating soft skills with SEAM-principles, managers can not only enhance team performance but also ensure the sustainability of innovative solutions.

Table 3. *Developing Critical Thinking within the SEAM-Model*

SEAM-Model Component	Soft Skill	Practical Tasks	Expected Outcome
Critical Thinking	Analysis, evaluation, problem-solving	Case studies, data analysis, argumentation	Ability to analyze information, evaluate evidence, and solve problems
Creativity	Questioning assumptions, generating alternative solutions	Brainstorming, lateral thinking	Ability to think creatively and challenge the status quo
Social Skills	Effective communication, collaboration	Debates, group discussions	Ability to communicate ideas clearly and persuasively, work effectively in teams

Source. Analyzed and systematized by the author based on [6] and [7]

Table 3 provides a clear framework for developing critical thinking skills within the SEAM-model. This table highlights the interconnectedness of critical thinking with creativity and social skills.

- Critical Thinking itself is broken down into the sub-skills of analysis, evaluation, and problem-solving.
- Creativity is linked to critical thinking through questioning assumptions and generating alternative solutions.
- Soft Skills are tied to critical thinking through effective communication and collaboration.

By focusing on these interconnected skills, individuals can become more adept at analyzing information, evaluating evidence, and making sound judgments. This is particularly important for managers who must make decisions that have significant implications for their teams and organizations.

Recommendations for Professional Development of Managers

1. Foster a Culture of Critical Thinking

- Encourage questioning. Create a safe environment where employees feel comfortable challenging the status quo and asking probing questions.
- Model critical thinking. Leaders should demonstrate critical thinking in their own actions and decision-making.
- Promote diverse perspectives. Encourage teams to include individuals with diverse backgrounds and experiences to foster a broader range of perspectives.

2. Provide Opportunities for Practice

- Case studies. Use real-world case studies to help managers develop their analytical and problem-solving skills.
- Simulations. Create simulated business environments where managers can practice making decisions under pressure.
- Debates and discussions. Organize regular debates and discussions to encourage managers to articulate their thoughts and defend their positions.

3. Integrate Critical Thinking into Training Programs

- Embed critical thinking in all training. Ensure that critical thinking is a component of all management development programs.
- Use a variety of teaching methods. Employ a mix of lectures, group activities, and hands-on exercises to cater to different learning styles.
- Provide ongoing coaching and mentoring. Offer ongoing coaching and mentoring to help managers develop their critical thinking skills over time.

4. Encourage Collaboration

- Create cross-functional teams. Bring together individuals from different departments to work on projects together.
- Facilitate knowledge sharing. Encourage knowledge sharing through forums, communities of practice, and mentorship programs.

5. Measure and Reward Critical Thinking

- Develop performance metrics. Create performance metrics that measure critical thinking skills, such as the ability to analyze complex problems and develop innovative solutions.
- Recognize and reward critical thinking. Recognize and reward employees who demonstrate strong critical thinking skills.

Figure 3 provides an analytical framework to understand the development of creativity across key competencies among future managers. Grounded in the SEAM-model, this chart contrasts professionals with experience in startups and large corporations. The SEAM-framework integrates socio-economic dynamics, encouraging adaptability and innovation in diverse organizational settings. This comparison highlights how managerial environments shape critical skills such as creativity, critical thinking, problem-solving, and teamwork.

The radar chart in Figure 3 reveals distinct trajectories of competency development. Professionals with startup experience demonstrate higher creativity and adaptability due to exposure to dynamic and resource-constrained environments. Conversely, managers from large corporations exhibit stronger teamwork and problem-solving skills, reflecting the structured and collaborative nature of such organizations.

The SEAM-model plays a critical role in bridging these developmental differences. By integrating its principles into professional training, organizations can foster a balanced skill set that combines startup-driven innovation with corporate-level strategic thinking. This holistic approach ensures that managers are well-equipped to lead in both entrepreneurial and established business settings, thereby maximizing their overall impact on organizational success.

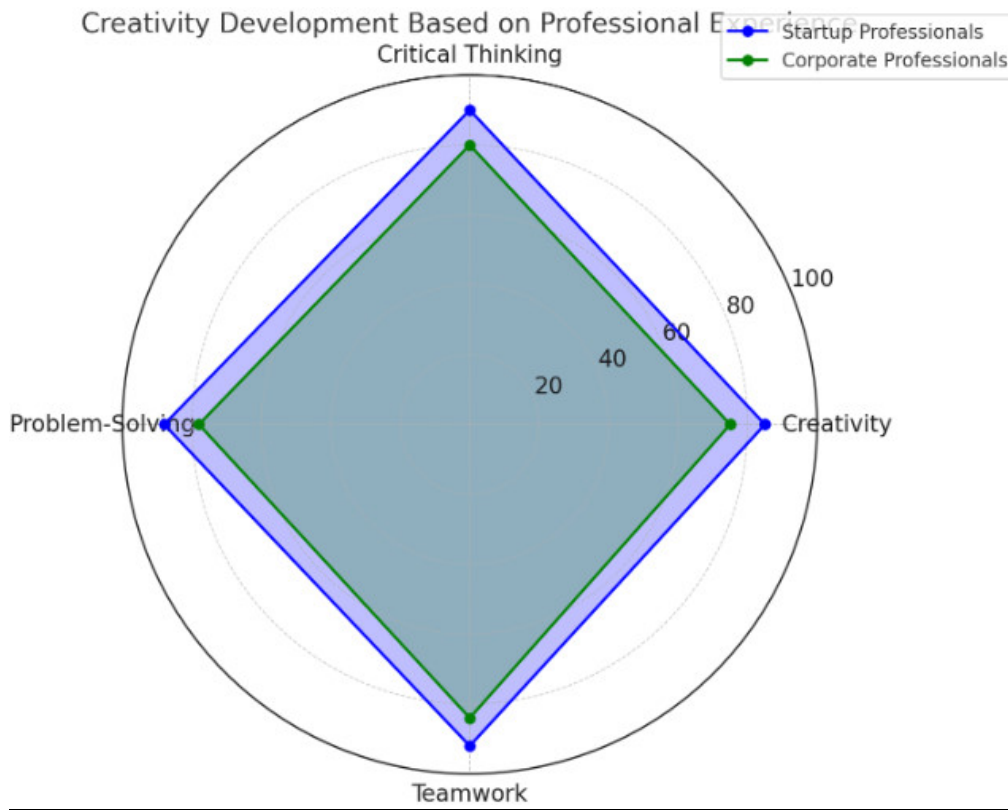


Fig. 3. Creativity development across key competencies, contrasting professionals with startup experience and those from large corporations
Source. Author's framework

The SEAM-model, which focuses on developing social intelligence, emotional intelligence, and critical thinking, is highly relevant for the professional development of future managers in the context of the transition to Society 5.0. In this society, where technology and people interact harmoniously, leaders require not only technical knowledge but also a high level of emotional intelligence and the ability to work in teams. The SEAM-model offers a comprehensive approach to developing these qualities, preparing future managers for work in a dynamic and uncertain world. The SEAM-model has great potential for the development of future managers. It helps them develop competencies such as leadership, creativity, problem-solving, collaboration, and empathy, which are becoming essential components of professional competence. These competencies are key to success in any field, especially in an environment of rapid change and globalization. Author has analyzed the strengths and weaknesses of the SEAM-model's impact on the development of professional competence in future managers, considering the threats/risks and opportunities to turn challenges into advantages (Table 4).

Table 4. *SWOT Analysis of SEAM-Model and Development of Soft Skills in Future Managers*

Strengths	Weaknesses	Opportunities	Threats
Comprehensive approach: Addresses emotional intelligence, critical thinking, and creativity	Requires significant resources and time for implementation	Aligns with the demands of the modern job market	Rapid technological advancements may render some aspects obsolete
Practical orientation: Provides specific tools and techniques for skill development	Limited research on the model's impact on soft skills	Potential for collaboration with businesses to provide real-world experience	Competition from other competency development models
Emphasizes social responsibility and teamwork	Effectiveness depends on the quality of training and facilitation	Opportunities for innovative teaching methods using digital tools	Lack of student motivation may hinder learning outcomes
Fosters adaptability and resilience	May be challenging to measure the outcomes of the model	Potential for creating a network of alumni with strong soft skills	Changing priorities of employers may shift focus to other skills

Source. Analyzed and systematized by the author

Table 4 provides a comprehensive overview of the strengths, weaknesses, opportunities, and threats associated with the SEAM-model. By understanding these factors, organizations can effectively implement and leverage the model to develop future managers.

Strengths such as the model's comprehensive approach and practical orientation make it a valuable tool for addressing the complex challenges of the 21st century. By focusing on emotional intelligence, critical thinking, and creativity, the SEAM-model equips individuals with the skills needed to thrive in a rapidly changing world.

However, the weaknesses of the model, such as the resource intensity and limited research, must be acknowledged and addressed. To overcome these challenges, organizations should invest in high-quality training and evaluation methods.

The opportunities presented by the SEAM-model are significant, particularly in the context of post-war reconstruction. By fostering innovation, collaboration, and adaptability, the model can contribute to the development of a resilient and prosperous society.

To mitigate the threats identified in the SWOT analysis, organizations should stay updated on the latest trends in education and training, and continuously adapt the SEAM-model to meet the evolving needs of the workforce.

Given the challenges faced by Ukraine, the SEAM-model offers a promising framework for developing future leaders who can contribute to the country's recovery and reconstruction.

The series of graphs (Fig.4) collectively illustrates the multidimensional development of future managers through the lens of the SEAM-model. This model emphasizes a systemic and integrative perspective, enabling an evaluation of the

dynamic interplay between emotional intelligence, creativity, and innovative thinking across various professional contexts. The visualizations aim to underscore how tailored approaches, rooted in SEAM-principles, can prepare managers to excel in rapidly evolving environments by enhancing both personal and organizational competencies.

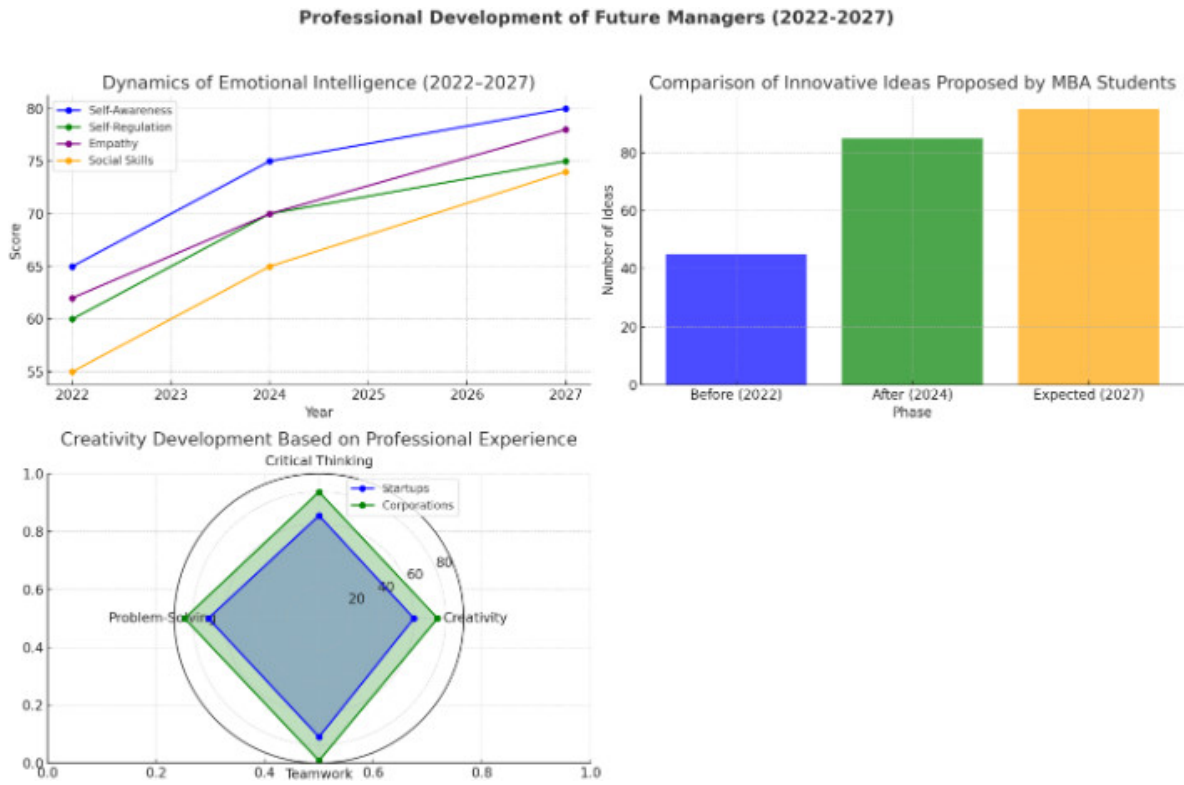


Fig. 4. Evolution of Skills Across Professional Experience
 Source. Author's framework

The data collectively validates the SEAM-model's ability to cultivate future managers equipped for complex, adaptive challenges. By promoting a balance between emotional intelligence, critical thinking, and creativity, the SEAM-framework ensures that managerial development aligns with real-world demands. The upward trends in emotional intelligence and creativity signify the growing capacity of managers to handle diverse scenarios with empathy, innovation, and strategic insight.

Moreover, the comparative analysis of professional experiences in the radar chart suggests that the SEAM-approach can integrate the agility of startup environments with the structured problem-solving skills prevalent in corporations. This synergy reinforces the role of SEAM in guiding professional training, ensuring that future managers are not only proficient in traditional competencies but also prepared to lead with resilience and vision in a constantly evolving global economy.

Specific recommendations include:

1. Prioritize the development of soft skills. Focus on cultivating emotional intelligence, critical thinking, and creativity, as these skills are essential for effective leadership and problem-solving in complex situations.

2. Integrate the SEAM-model into educational programs. Incorporate the principles of the SEAM-model into university curricula and corporate training programs to ensure that future managers are equipped with the necessary skills.

3. Foster a culture of innovation and learning. Create a work environment that encourages experimentation, risk-taking, and continuous learning.

4. Invest in technology and digital tools. Leverage technology to enhance the effectiveness of the SEAM-model, such as through online learning platforms and virtual simulations.

5. Build strong partnerships. Collaborate with businesses, government agencies, and international organizations to share best practices and resources.

6. Monitor and evaluate the impact of the SEAM-model. Regularly assess the effectiveness of the model and make necessary adjustments to ensure its continued relevance.

By implementing these recommendations, Ukraine can leverage the power of the SEAM-model to build a strong and resilient future.

Conclusions

In the ever-changing landscape of the modern world, Ukraine faces an unprecedented challenge of rebuilding its economy while simultaneously adapting to global trends such as digitalization and innovation. In this context, the SEAM-model emerges as a transformative approach to leadership and management development. By combining soft skills, emotional intelligence, and adaptability with digital literacy, the model addresses the growing demands of Society 5.0, where human-centric technologies and innovative solutions take precedence. This model not only equips future leaders to navigate uncertainty but also empowers them to foster environments of creativity, resilience, and collaboration in the workplace.

As Ukraine works toward becoming a leader in the global innovative economy, the SEAM-model offers a strategic framework for achieving sustainable growth. It bridges the gap between professional education and industry needs, ensuring that graduates are not only highly qualified but also capable of addressing the complex problems of today and tomorrow. It is critical that both academia and industry work together to integrate this model into their practices to create a unified approach to cultivating a new generation of managers who are equipped to handle challenges, embrace change, and contribute to national progress.

1. The SEAM-model offers an innovative approach to developing leaders. It goes beyond traditional management models, focusing on cultivating emotional intelligence, social skills, and empathy. These attributes are crucial for building trust within teams and creating sustainable organizational growth.

2. The SEAM-model aligns with the demands of Society 5.0, where innovation and adaptability are key success factors. It prepares leaders to operate in

dynamic and uncertain environments, fostering resilience and the ability to thrive in complexity.

3. The application of the SEAM-model fosters innovative thinking among future managers. It encourages a creative approach to problem-solving, empowering leaders to generate breakthrough ideas and solutions for both immediate and long-term challenges.

4. The SEAM-model can be a driver of organizational innovation. It helps create a culture of innovation where employees feel engaged, motivated, and inspired to contribute their best efforts toward shared goals.

5. Integrating the SEAM-model into educational programs enables the development of professionals who meet the demands of the modern job market. Graduates who have mastered the SEAM-model will be more competitive in the global market, gaining an edge due to their unique blend of technical and interpersonal skills.

6. The SEAM-model can be an effective tool for organizational transformation. It helps to change an organization's culture, making it more people-oriented, innovative, and capable of attracting and retaining top talent.

7. The use of digital technologies within the SEAM-model opens up new opportunities for learning and development. Online platforms, virtual reality, and other innovative tools can significantly improve learning efficiency and enable immersive, real-world training experiences.

8. The SEAM-model can contribute to the development of a startup ecosystem. By fostering entrepreneurial skills such as risk-taking, adaptability, and creative thinking, it encourages the creation of new businesses and supports innovation-driven economic growth.

9. The innovative nature of the SEAM-model requires continuous development and adaptation. It is important to track new trends in management, technology, and education to refine the model and maintain its relevance in a rapidly evolving world.

10. The SEAM-model can become a national project that contributes to the development of Ukraine's innovative economy. Due to its innovation and relevance, the SEAM-model can become one of the tools for modernizing the Ukrainian economy, making it a hub for creativity, technology, and global competitiveness.

The SEAM-model is more than a tool for addressing current challenges; it is a vision for the future of Ukrainian leadership and economic development. Rebuilding Ukraine's economy and developing professional education is not merely a task but a shared responsibility to future generations. Soft skills, such as emotional intelligence, critical thinking, creativity, and adaptability, are becoming the cornerstone of this vision, equipping managers to not only rebuild what has been lost but also innovate for a brighter future.

To achieve these goals, it is crucial that both public and private sectors invest in the education of future leaders. Collaboration between academia, government, and industry can ensure that the SEAM-model becomes an integral part of Ukraine's national strategy for development. This unified approach will not only enhance

Ukraine's position in the global economy but also inspire a new generation of innovators and entrepreneurs who will build industries capable of leading on the global stage.

In these challenging times, it is essential to look beyond immediate solutions and focus on building long-term resilience and adaptability. The SEAM-model provides a roadmap for such a transformation, allowing leaders to navigate uncertainty with confidence and creativity. Ukraine's future, a future of Society 5.0 where humans and technology work together for a better tomorrow, depends on the strategic integration of models like SEAM. Together, we can ensure that Ukraine not only recovers but thrives as a global leader in innovation and human-centered progress.

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