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EXPLORING THE INTEGRATION OF LATERAL THINKING IN HUNGARIAN ECONOMIC HIGHER EDUCATION

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Abstract: *In the rapidly evolving context of economic higher education, lateral thinking—a non-linear, adaptable approach to problem-solving—has turned into an essential instrument to foster innovation and adaptability among students working in VUCA environments. Informed by empirical data of Hungarian economic universities, complemented with theoretical background on lateral marketing and intelligent inverse innovation, this study responds to two research questions: (1) How integrated is the lateral strategy in Hungarian economic higher education? (2) How are the perceptions of students and teachers regarding lateral thinking and creative leadership influencing its implementation? With qualitative synthesis of the authors' research and recent literature, the findings confirm strong perceptual support for the added value of lateral. The study proposes actionable suggestions on the integration of lateral styles through AVICA (Agile, Value-oriented, Inspiring, Collaborative, Appreciative) leadership models and information technology, promoting global arguments on education competitiveness in a knowledge economy.*

Keywords: *lateral way of thinking, VUCA, leadership, economic higher education*

1. INTRODUCTION

The global economic reality of speedy technological innovation (Schumpeter, 1939; Kornai, 2010), market volatility, and social transformation necessitates creative pedagogy in the higher education sector to equip students with the ability to confront fluid challenges. Lateral thinking, first introduced by Edward de Bono in 1970, offers an innovative approach defying the traditional, linear type of thinking, provoking problem-solving from unconventional perspectives. Bono emphasized: "The recognition of dominant polarizing ideas. The search for different ways of looking at things. A relaxation of the rigid control of vertical thinking. The use of chance" (Bono, 1970; Szalai & Tóth, 2019, 39). Lateral thinking is important for economic higher education because students must deal with complex, interconnected systems of technology, globalization and changing social needs. Economic education is traditionally based on rational choice frameworks involving perfect information and efficient decision, (Mátyás, 1979). Economy has evolved – from Adam Smith's classical economic theory to behavioural revolution of Kahneman and Thaler – with other perspectives that take irrationality into account, and imagination, in the brain (Kahneman, 2012; Thaler, 2016).

The developments highlight the importance of lateral thinking by allowing learners to handle ambiguity in an ambiguous (VUCA) world. It is "short for volatility, uncertainty, complexity, and ambiguity. VUCA conflates four different types of problems that require four different kinds of answers" (Harvard Business Review, 2014).

Higher education reform in Hungary, a post-socialist country transitioning to a knowledge-based economy, has been undergoing higher education reforms since the 2010s as an attempt to improve competitiveness and adapt to EU standards. A previous step in this direction of higher education was internationalization and innovation, but since 2021 the emphasis is on basis-based governing structures, but that is not always the case, and new approaches have been proposed

(Hungarians Conservative, 2025). There are other issues with higher education in Hungary - a 20% drop in student enrolment in the past decade, and limited funding in 2018 (Teichler, 2004; Times Higher Education, 2024), which stress the potential of lateral reasoning in order to transform economic education, but may be constrained by political considerations and institutional resistance.

1.1.Foundations of Lateral Thinking

Edward de Bono (1970) sees lateral thinking as a departure from vertical, logical analysis towards associative, provocative problem-solving. Instead of following the linear process, lateral thinking goes out to find other sides, to steal ideas from other fields, and to get new solutions, (Sloane 2010; Csíkszentmihályi, 1996; Szalai, 2013). Guilford (1950) recognizes a collection (experiments), fluency (sensory information), flexibility (mental habits) and creative power (new ideas), to be the essence of divergent thinking rather than purely selective ones. Lateral thinking in economics helps students to test assumptions and learn new skills for understanding complex systems, for example forecasting market trends or new business models (Hahn, 2023; Gardner, 1983). Others say it is not "true science", they say, it is based on neurological studies and lacking validation (Aeon, 2020).

But this is not always the case, with products like de Bono's Six Thinking Hats and several different perspectives of collaborative learning. In economic contexts lateral thinking is consistent with behavioural economics which incorporates psychological factors such as biases and heuristics but cannot challenge classical rationality (Kahneman, 2012, Thaler, 2016). For example, prospect theory shows that, people are often very pessimistic about what they might get, requiring curricula based on theories and lateral application (Hámori, 2003). In practice, this can include market disruption example scenarios such as Hungary's post COVID-19 economic boom, where lateral thinking can make use of behavioural idiosyncrasies in consumer spending (Kálmán et al., 2021).

1.2. Innovative Leadership in a VUCA World

The VUCA model—Volatile, Uncertain, Complex, Ambiguous—demands to be met with leadership that promotes flexibility and innovation in classrooms (Kok & van den Heuvel, 2019).

AVICA model (Agile, Value-oriented, Inspiring, Collaborative, Appreciative). Teacher leaders become leaders: agile, value-oriented leaders demand rules of ethics; encouraging leaders inspire by example; collaborative leaders take advantage of collective wisdom; and appreciative leaders reward positive feedback (Szalai & Tóth, 2020b). Emotional intelligence (EI) becomes a model and high-EI leaders lead trust-driven, creative cultures (Subramanian and Yen, 2013). Higgs and Dulewicz (2002) cite EI as drivers (motivation, rationality), constrainers (resilience, conscientiousness) and enablers (sensitivity, impact), linking it to effective leaders (George, 2000). Worldwide, VUCA-based learning is focused on 21st-century skills such as critical thinking, creativity (El Aouri, 2024).

Nevertheless, reforms in Hungary are more governance-oriented than pedagogy-oriented and hence the use of AVICA is limited (OECD, 2017). The 2021 trustee model of governance, which includes trustee oversight, has been accused of weakening teacher autonomy and therefore, experimental practices like lateral thinking workshops getting fewer (Hungarian Conservative, 2025; Times Higher Education, 2024). To effect a change, Hungarian universities can take a leaf from the Scandinavian models where EI-focused training develops teacher awareness of change, thereby leading to lateral approaches (Minciu et al., 2025). For example, Finland's economics classes combine creative problem-solving, thus becoming a source of inspiration for Hungary to initiate AVICA-based teacher programs in trust and cooperation.

1.3. Evolution of Economic Thought

The study of economics initially was based on the rationalist model, where perfect information and self-interest were assumed (Samuelson, 1952), but later it started to involve more lateral perspectives. Adam Smith's orthodox theories were very much in favour of free markets. However, to

add more colour to the picture, scholars have brought in the divergent lines of thinking (Mankiw, 2011; Sipos, & Tóth, 2006; Varian, 2005). John Maynard Keynes pointed at the necessity of state intervention during the time of crises which led to the focus of macroeconomic stability (Szakolczai, 2018; Hicks, 1980; Stiglitz, 1998). Robert Solow's growth models went beyond mere economic growth to include technological change while Ronald Coase's transaction cost theory was seen as the new source of organizational efficiency (Solow, 1970; Coase, 1937; Németh, 2011). Before Hectscher-Ohlin, neoclassical trade theories were replaced by the new ones emphasizing comparative advantages (Carlson & Lars, 2006; Casson, 2006). These changes imply the use of lateral thinking by not only challenging the traditional linear assumptions resulting in turning them upside down but also by introducing more plausible complexities. The influence of behavioural economics is even more evident in the field when one considers the prospect theory of Kahneman and Tversky which among other things pointed out that irrationals such as loss aversion and framing-effects exist (Hámori, 2003).

Those speculations indicate that syllabus should contain lateral exercises as well as provide enactments of scenarios where participants creatively come up with solutions for market failures. Economic education in Hungary tends to be more theoretical, and graduates by just implementing these lateral applications would be more prepared for the world markets. For instance, they would be able to understand foreign export-led economy better if there were disruptions in the global supply chain during that time (Matolcsy, 2021).

1.4. Megatrends in Higher Education

Four major effects of economic higher education: digitalization, demographic change, responsible research and innovation, and increasing institutional roles (Zuti 2017). Digitalization promotes dialogic knowledge creation outside professor-dominated academic settings. Digital platforms are widely available in Hungary, but unstable infrastructure prevents them to be used for lateral education such as virtual economic scenario simulations (Márton 2017; Kálmán et al 2021). E-learning modules are tested at Corvinus University but to be extended to include lateral exercises is challenging in terms of funding constraints. Demographic losses in Hungary (20 % drop in Hungarian students) demand new recruitment policies (Teichler, 2004). Ethical research is enforced by responsible innovation in accordance with the value-based direction of lateral thinking. Third mission (knowledge transfer and social engagement) relies on lateral thinking to make education relevant for society requirements. European Union-funded projects support interdisciplinary efforts in Hungary, but most institutions maintain traditional tools (Zuti, 2017, Kovács & Pásztor, 2022). Budapest University of Economics and Business has project-based learning but little in scope compared to lectures (Lateral marketing and smart inverse innovation) focus on creativity as value-generating creativity (Szalai & Tóth, 2020a). Innovator's Customer Knowledge Management (ICKM) model puts the students in the role of proactive partners, giving rise to demand-driven innovation (Gibbert et al. 2002).

Lateral marketing introduces new types of market via novel re-arranging, giving a pedagogical innovation framework (Olteanu, 2006; Andaleeb, 1995). Intelligent inverse innovation avoids serial processes which respond to hidden needs (Szalai & Czékmann 2009). Hungarians can re-design courses to include inverse projects e.g. reverse engineering market failures to specify sustainable solutions, e. g., Hungary's labour market lack. Trust is important with economical high-trust performing societies (Csiszér, 2017). In education, networked or communal trust cultures promotes lateral thinking (Goffee & Jones, 1998). Emotional intelligence (EI) leads to creativity through respect and empathy (Balázs 2012, Laáb 2011). Trust workshops and EI training will improve. Trust workshops will increase. Trust training will allow for improved lateral learning. Trust studies should complement EI education. Trust clinics in Hungary would facilitate rehabilitation from high-quality, lower-quality countries. In education networks, the socio-economic and social relationships provide deep insights such as respect and interest.

1.5. Hungarian Context and Implementation Gaps

Lateral thinking is getting traction in Hungarian universities and is yet to be achieved (Papp-Váry et al. 2021). Higher Education Strategy 2014 focused on innovation, but in 2021 foundation-based governance focuses in the administration, sometimes along conservative agendas (Newsweek, 2025; The World, 2025). Surveys show that there is interest in lateral thinking, but systemic participation is limited (Szalai & Tóth, 2022). Project learning at Eötvös Loránd University, e.g., is viewed as a lateral vehicle, but it has only few students (Zuti, 2017). Around the world lateral thinking tools support critical creativity (Laab, 2021), but Hungarian policies focus on outputs, like work-ability, at the expense of innovation. OECD (2017) shows that Hungary is entrepreneurial but creative approaches are slow. For example, Nordic universities include lateral tools, such as brainstorming workshops, compared with Hungarian slow adoption. Hungary could implement such models, by using EU funding to generate digital platforms for lateral exercises to reduce infrastructure burden.

2. METHODOLOGY AND RESULTS

We give qualitative synthesis from documents with secondary sources from web search and books. The main source Szalai & Tóth (2022) provides us with data from 140 students and 21 teachers in Hungarian economic universities as well as semi structured interviews of three teachers (Annamária Csiszér, Ibolya Rózsa Pénzes, and Géza Székely). The rest (Szalai & Tóth, 2020a,b) provide theoretical background on rationality, lateral marketing and reverse innovation. The important problems were found using topics coding: definitions and components of lateral thinking, AVICA leadership, perceived strengths, barriers in implementing and megatrends of education.

Secondary sources are acquired using web search search and browse page technology to take Hungarian reforms and global trends into account. Searches for “lateral thinking higher education Hungary” are little known, but Papp-Váry et al. (2021) and Zuti (2017) mention creativity but not details of lateral methods. VUCA related searches are found in Minciu et al (2025) for global appeals for resilience and OECD (2017) for Hungarian reforms. Emotional intelligence and sustainable economics websites linked leadership and trust to innovation in education. Analyzing optimistic survey findings is skeptical, believing that there is no depth of implementation, and no widespread curricular change. Cross validation between sources ensure strength by focusing on the specific setting of Hungary, e.g. after socialist change and EU accession.

2.1. Results

2.1.1. Primary Source Insights

Questionnaire Results

High participation among Hungarian economy schools (Corvinus University and Budapest Business School, Budapest University of Economics and Business) was in support of lateral thinking. Almost 50% of the 140 student and 21 teachers who felt it needed to succeed in a labour market and had three main reasons: career (better performance and skill), innovation (informative and competitive), and personal limits (different from previous applicants). They wanted lateral thinking to go beyond their personal limits, one of them saying “this opens them up from older people”. Teachers emphasized the benefit of lateral thinkings in fast decision and multilevel reasoning, one saying “In our fast world time is a low commodity and lateral thinkers make fast wise decisions.” There were students using lateral thinking for Hungary's EU trade policy to present creative export schemes. It was a clear gap: 61.9% of teachers used lateral thinking, while only 57.1% did students have so, probably overestimated or used with less depth.

Three teachers were skeptical, saying lateral thinking might have a negative impact on their employer expectations and one said “independent creative thinking is not typically rewarded in traditional workplaces or we do not have innovation.” This is a matter of particular concern in Hungary where traditional cultures are more likely to promote conformity than innovation. Students of mixed

background, including foreign students, were helped by lateral solutions for Hungarian economic problems (e.g. studying EU integration problems, or experiencing shortages of labour markets since the reform of 1989).

Interview Insights

Semi-structured interviews with Csiszér, Pénzes, and Székely depicted teachers as AVICA leaders, being agile, value-driven, inspiring, working collaboratively, and being grateful.

Csiszér: agility to deal with cultural diversity, teaching European values to non-European students without losing her identity, case studies, role playing, group exercises, etc. to motivate lateral thinking (from different points of view (in this case, Hungary's 2008 financial crisis in different aspects). Penzes: value-based project-based learning, stating that two semesters of project-study at her university are provided to students to develop new solutions, for example green business models for Hungary's SME sector. She provided positive feedback for developing self-esteem and assisting working with students with communication disorders. Székely: grateful leadership, rewarding innovative efforts with flexible timetables and public recognition even for students with communications disorders, agility as continuous professional development and collaboration through feedback from students. Pénzes: the three correlated lateral thinking with Society 5.0 where digitalization and automation bring a shift in roles of society. Pénzes: a shift towards competency-based knowledge, citing projects where students developed models of circular economies. Székely said there were drawbacks such as technologist bias to nontechnicalologists, and that interdisciplinary universities based on American universities were given general knowledge for lateral applications. Csiszér said that lateral thinking brought students into the face of information-overloaded environments and international working cultures. Problems with electronic communication systems and psychological training for making lateral thinking tractable. As an example, Csiszér described a project in which students performed lateral techniques incorrectly due to nonprecision digital instructions, highlighting infrastructure shortcomings.

Supplementary Document Insights

Szalai & Tóth: Rationality of Lateral Marketing (Szalai & Tóth 2020a) balances rationalism with optimum choices and perfect information with lateral marketing that gets value from new restructuring. Lateral marketing creates new market groups and an education innovation model (Olteanu 2006). Innovator’s Customer Knowledge Management (ICKM) model takes students as co-producers going from knowledge management, customer relationship management, of customer knowledge management to ICKM stages (Gibbert et al. 2002). In Hungary, for example, this could be done via co-creation of curricula with students to tackle local economic problems like rural depopulation affecting the labour market. Different dimensions of Intelligent Inverse Innovation (Szalai & Tóth, 2020b) describes lateral thinking as a strategy that avoids common solutions and uses jumps to create new context (Szalai & Tóth 2019).Clever reverse innovation replaces some processes and solves concealed needs (Szalai & Czékmann, 2009).This relates to learning needs, where students solve future problems creatively, for instance, to plan policies for Hungary's aging population. Emotional intelligence is key for high-emotional intelligent leaders who fosters creativity and trustworthiness (Subramanian & Yen 2013). Organizational cultures (networked, communal, mercenary or fragmented) favour lateral teaching (Goffee & Jones, 1998; Balázs, 2012). In Hungary EI training may make lateral teaching easier and counterbalance low social trust.

2.1.2. Secondary Source Insights

Web sites found few references of lateral thinking in Hungarian education, creativity being well developed but not fully integrated. Hungarian governance reforms are efficient, and conservativeness driven, stifling pedagogic innovation (Newsweek, 2025; The World, 2025).

Hungarian entrepreneurial attitude is acknowledged by the OECD (2017), but no new vehicle is introduced. Flexibility is advocated in VUCA publications, but Hungarian plans focus on employability strategies. For example, Corvinus University entrepreneurship courses focus on startups, but none on lateral techniques like de Bono's. Emotional intelligence studies suggest it is a successful culture (Higgs and Dulewicz, 2002). Matolcsy's 2021 vision for sustainable economics tends toward lateral methods, but it is slower due to finance and demographic difficulties (Zuti, 2017).

International models like U.S. universities using de Bonos are ill-posed and Hungary still slow to uptake. EU reports suggest digital platforms can mass-scale lateral strategies, but Hungary's infrastructure is limited. For example, Germany's dual system of education include lateral thinking of economics as part of a model that might be used to be used by Hungary to finance EU finance.

2.2.Synthesis of Findings

Recent studies show that lateral thinking is highly perceived in economic education in Hungary, where students and teachers associate creativity, competitiveness, and flexibility. AVICA models are a good example, though their diffusion is limited and concentrated on project-based work at institutes such as Corvinus or Eötvös Loránd. The traditional curricula and governance driven reforms are facing traditional teaching and demographic failures (20% drop in enrolment) and budget problems (OECD 2017). Cynicism is as no radical change in curricula, with lecture courses being common. Synchronical models with blended digital and face-to-face lateral exercise can eliminate challenges and draw inspiration from Scandinavian or German learning.

3. CONCLUSION

Lateral thinking has the potential to enable economic higher education, create creativity, adaptability, and competitiveness in a VUCA world. Hungarian economic universities' data are overwhelmingly supported by students and lecturers, who view it as a way to enter into the labour market with success. The AVICA leadership model of agility, value-interest, inspiration, collaboration, and appreciation can be used to leverage lateral thinking, supported by project-based learning and high-EI pedagogy. However, systemic takeup remains limited in Hungary due to entrenched curricula, governance driven reforms and external shocks, such as demographic shifts, and deficits. Recent reforms, due to administrative efficiency over pedagogical innovation, confirm that genuine takeup is often impossible, indicating that lateral thinking is often an unrealistic dream instead of a life-changing practice. To fill this gap, policymakers may first focus on educating the teaching staff in AVICA, introduce digital means for collaborative learning, and reexamine curricula for lateral thinking in each economic program.

Incentives for project-oriented activities and transdisciplinary approaches may stimulate creativity in order to complement education by Society 5.0 requirements. According to international standards, e.g., Finland's new economics degree courses or Germany's dual vocational training system, Hungary may use EU funds to develop web-sites for side-work. Future studies could utilize longitudinal analyses to track implementation and compare Hungarian initiatives with international models to establish best practice. Using the potential of lateral thinking to increase competitiveness and prepare students for knowledge-driven dynamic economies.

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