

INTERPLAY OF ENDOGENOUS RESOURCES AND EXOGENOUS FORCES IN DRIVING STRATEGIC AGILITY: A MIXED-METHODS STUDY

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Contemporary business environments are characterized by increasing complexity and rapid change, positioning strategic agility as a critical driver of organizational resilience and sustainable success. Study examines strategic agility through an integrative endogenous–exogenous analytical lens, offering a theoretically grounded and empirically robust investigation of how leaders navigate complexity by aligning internal capabilities with external environmental dynamics. Employing a mixed-methods design, study draws on evidence from 100 case studies and integrates quantitative metrics with qualitative insights through the Delphi method, enabling a systematic exploration. This approach facilitates in-depth examination of the interplay between firm-level resources, environmental pressures, and strategic decision-making. Findings indicate that leaders systematically engages endogenous–exogenous (Endo–Exo) analysis exhibit an enhanced capacity to anticipate change, leverage competitive advantages, and foster adaptive organizational cultures. Results further demonstrate a strong association between Endo–Exo analysis and improved strategic coherence, organizational agility, and leadership effectiveness. Research contributes a robust analytical framework for strategic leadership that is both theoretically rigorous and practically relevant within dynamic and uncertain organizational contexts.

DOI
[https://doi.org/
10.18690/um.epf.7.2026.47](https://doi.org/10.18690/um.epf.7.2026.47)

ISBN
978-961-299-166-1

Keywords:
strategic agility,
Endogenous–Exogenous
analysis,
strategic leadership,
environmental dynamics,
organizational resources,
mixed-methods research



University of Maribor Press

1 Introduction

The contemporary business landscape is increasingly shaped by volatility, uncertainty, complexity, and ambiguity, compelling organizations to continuously reassess how they formulate and implement strategy. Rapid technological advancements, the intensification of global competition, regulatory pressures, and shifting stakeholder expectations have transformed strategic agility from a desirable capability into a fundamental organizational necessity. In this context, strategic agility refers to an organization's ability to sense changes in the environment, rapidly reconfigure resources, and respond effectively through timely and coherent strategic actions. Despite the significant growth of the literature on strategic agility, much of the existing research tends to examine internal organizational capabilities or external environmental forces in isolation. This fragmented perspective limits a comprehensive understanding of how strategic agility is actually developed and sustained in practice.

Organizations do not operate as closed systems; rather, they are embedded in dynamic and fluid environments where endogenous resources – such as leadership competencies, organizational culture, knowledge assets, and structural flexibility – continuously interact with exogenous forces, including market turbulence, technological change, competitive intensity, and institutional constraints. Understanding strategic agility, therefore, requires an integrative analytical approach capable of capturing this interactive dynamic between internal and external factors. Based on this perspective, the article seeks to introduce a novel empirical approach that can generate meaningful results and theoretical novelties in the application of Endo–Exo analysis through advanced mathematical and computational calculations. This approach is expected to provide a new and highly relevant contribution with practical implications for managers and organizational leaders. Building upon this premise, the present study adopts an endogenous–exogenous (Endo–Exo) analytical perspective to examine strategic agility as an outcome of the alignment between internal organizational resources and external environmental conditions. By integrating insights from strategic management, the Resource-Based View, and perspectives from Contingency Theory, the study advances a more holistic framework for analyzing how organizations navigate conditions of complexity and uncertainty. This approach recognizes that strategic agility is not merely the result of possessing superior resources or accurately interpreting external signals; rather, it

emerges from the effective orchestration and prioritization of these factors within strategic decision-making processes. From a methodological standpoint, this research adopts a mixed-methods design in order to ensure both analytical rigor and contextual depth.

Qualitative insights are generated through the Delphi Method, relying on expert evaluations to identify, refine, and validate the key endogenous and exogenous criteria that influence strategic agility. These insights are subsequently operationalized within a quantitative decision-making framework using the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS). The application of TOPSIS enables a systematic multi-criteria evaluation of strategic alternatives, simultaneously considering multiple – often competing – internal and external factors. The integration of TOPSIS into the research design represents a significant methodological contribution. By transforming complex qualitative judgments into measurable criteria and weights, TOPSIS facilitates the ranking of strategic configurations based on their relative proximity to an ideal decision of strategic agility. This approach enhances transparency, reduces subjectivity in strategic evaluation, and provides a powerful decision-support tool for leaders operating in turbulent environments. Furthermore, this approach enables the empirical examination of how different combinations of endogenous resources and exogenous forces influence strategic agility outcomes across diverse organizational contexts.

Based on evidence derived from 100 case studies, the findings indicate that organizations that systematically apply Endo–Exo analysis and multi-criteria decision-making tools, such as the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), demonstrate higher levels of strategic coherence, adaptability, and leadership effectiveness. Leaders who successfully balance internal capabilities with external demands are better positioned to anticipate change, capitalize on competitive opportunities, and cultivate adaptive organizational cultures.

2 Literature review

Strategic agility has been widely recognized in the contemporary strategic management literature as a key organizational capability for coping with environments characterized by uncertainty, rapid change, and high complexity (Doz & Kosonen, 2010; Teece, Peteraf, & Leih, 2016; Clauss et al., 2021). Numerous scholars define strategic agility as the capacity of organizations to sense signals of change, reconfigure resources, and undertake timely strategic actions while maintaining coherence between long-term objectives and short-term decisions (Teece, 2018). However, although the importance of strategic agility is widely acknowledged, the manner in which this concept is operationalized and empirically measured remains fragmented and somewhat ambiguous (Junni et al., 2015; Sampath & Krishnamoorthy, 2022). A dominant stream of the literature focuses on the analysis of organizations' endogenous resources, largely grounded in the resource-based view and capability-based perspectives (Barney, 1991; Elezaj & Kuqi, 2021). These studies emphasize the role of strategic leadership, organizational culture, structural flexibility, human capital, and dynamic capabilities as key determinants of strategic agility (Shin et al., 2015). According to this perspective, organizations that possess unique and difficult-to-imitate resources are better able to adapt and sustain competitive advantage. Nevertheless, this strong emphasis on internal factors often treats organizational resources as relatively static elements detached from the environmental context, thereby underestimating the fact that their value and effectiveness depend significantly on the external conditions in which the organization operates (Eisenhardt & Martin, 2000).

On the other hand, the literature that analyzes exogenous forces focuses on the influence of market volatility, competitive intensity, technological developments, and institutional pressures on the strategic behavior of organizations (Volberda et al., 2021; Wamba et al., 2017). These studies argue that more dynamic and unpredictable environments require higher levels of flexibility and rapid strategic responsiveness (Bettis et al., 2016). However, this line of research also remains largely descriptive and fragmented, as environmental factors are often analyzed as external variables of influence rather than as integral components of a structured decision-making process closely linked to the internal resources of the organization (Adner & Helfat, 2003). As a result, the existing literature is characterized by a clear separation between endogenous and exogenous analyses, creating a significant

theoretical gap in understanding strategic agility as an interactive and dynamic phenomenon. An integrative approach that treats strategic agility as the product of the continuous interaction between internal capabilities and external forces is still largely absent. Furthermore, most studies rely on traditional statistical methods or conceptual analyses, which often fail to capture the multi-criteria complexity of strategic decision-making under conditions of uncertainty. Another important gap relates to the limited application of Multi-Criteria Decision Making (MCDM) methods in the study of strategic agility. Strategic decision-making simultaneously involves multiple—often conflicting—factors that cannot be adequately evaluated through linear or unidimensional approaches (Kahraman et al., 2015; Greco et al., 2016).

Although methods such as the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) have been widely applied in other fields of management and engineering (Behzadian et al., 2012; Hwang & Yoon, 1981), their application in the analysis of strategic agility remains limited in the international literature and is practically unexplored in the context of developing economies, including Kosovo.

This theoretical and methodological gap is further deepened by the scarcity of empirical studies addressing strategic agility within institutional and economic contexts characterized by transition, structural uncertainty, and resource constraints. The dominant literature remains primarily focused on developed economies, leaving the organizational realities of the Western Balkan countries underrepresented (Meyer & Peng, 2016), where the interaction between environmental pressures and internal capabilities is particularly critical (Peng et al., 2017). The contemporary scholarly background on strategic agility suggests that organizational performance and adaptive capacity largely depend on how effectively organizations balance internal resources with the pressures of the external environment (Elezaj & Kuqi, 2023; Elezaj, 2025).

However, most existing studies treat this relationship in a linear or fragmented manner, analyzing either endogenous or exogenous factors without offering analytical mechanisms that explain how these factors interact within the actual process of strategic decision-making (Krasniqi & Elezaj, 2023). The empirical results of the present study directly contribute to addressing this gap by providing structured evidence that strategic agility is the product of a multi-criteria

configuration rather than a single dominant factor (Birkinshaw, Zimmermann & Raisch, 2016; Chen, Neubaum, Reilly & Lynn, 2015). The findings indicate that the strategic alternatives achieving the highest rankings according to the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method are those that demonstrate strong coherence between internal organizational strengths and the systematic exploitation of environmental opportunities, while effectively managing weaknesses and risks. This evidence supports the literature arguing that internal resources are necessary but not sufficient for achieving strategic agility, thereby challenging the implicitly endogenous assumptions of the traditional Resource-Based View. At the same time, the results of the study reveal that environmental pressures, when treated independently, do not generate strategic agility in the absence of internal capabilities capable of absorbing and transforming them into effective strategic actions (Elezaj, Sejdija, & Kuqi, 2023).

From a theoretical perspective, these findings address an important gap in the literature: the lack of empirical operationalization of the Endo–Exo interaction. Unlike previous studies that treat this interaction conceptually or descriptively, this research materializes it through a multi-criteria model in which each dimension of SWOT Analysis contributes measurably to the final outcome of strategic decision-making (Elezaj & Kuqi, 2023). The results demonstrate that no single dimension (strengths, weaknesses, opportunities, or threats) is determinative in isolation; rather, their importance depends on their relative configuration and the strategic weight they assume in relation to one another. From a methodological perspective, the empirical evidence derived through the application of the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) directly addresses another prominent gap in the literature, namely the lack of analytical tools for multidimensional strategic decision-making. The results demonstrate that the use of TOPSIS enables the identification of strategic alternatives that are closest to the ideal solution, while simultaneously considering both stimulating and constraining criteria.

This approach overcomes the limitations of traditional statistical methods, which typically analyze isolated relationships between variables without providing a clear and actionable ranking for decision-making purposes. The empirical contribution of the study lies in the fact that the results are generated from an organizational context characterized by structural uncertainty, resource constraints, and evolving

institutional dynamics. Existing literature reveals a notable lack of evidence from transition economies, where exogenous pressures are often stronger and less predictable (Puffer, McCarthy, & Boisot, 2019). The findings of this study indicate that in such contexts, strategic agility does not manifest through spontaneous reactions but rather through structured and analytical decision-making processes that systematically integrate internal and external factors. At the conceptual level, the study advances a novel theoretical conclusion: strategic agility should be conceptualized as the outcome of relative proximity to an ideal strategic configuration rather than as an absolute organizational state.

This conclusion follows directly from the logic of the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) and represents a significant advancement in the literature by shifting the focus from static measurement of capabilities toward the dynamic assessment of strategic alternatives (Zavadskas, Turskis, Antucheviciene & Zakarevicius, 2012; Mardani, Zavadskas, Khalifah, Jusoh & Nor, 2016; Wang, Wang & Huang, 2019). These findings not only advance the theoretical understanding of strategic agility but also provide clear practical implications for leaders, enabling them to identify optimal strategic decisions in a reasoned, transparent, and empirically supported manner. This methodological integration represents a notable innovation, as it allows for the empirical operationalization of strategic agility as a decision-making process rather than merely a theoretical construct. The study contributes both to the theoretical advancement of understanding strategic agility as an interactive phenomenon and to offering a practical tool for organizational leaders. The application of TOPSIS enables leaders to make more objective decisions, reduce subjectivity, balance internal and external factors, and identify strategic alternatives that are closest to the ideal solution. In this way, the study helps to close existing gaps in the literature and offers an innovative approach suitable for dynamic and unstable contexts, such as that of Kosovo, positioning strategic agility as a measurable, manageable capability grounded in analytical decision-making.

3 Methodology

The study is based on a mixed-methods research design, which combines qualitative inquiry with multi-criteria quantitative analysis, aiming to capture the complexity that characterizes strategic agility and strategic decision-making in fluid environments.

The empirical investigation encompassed 100 case studies, built on semi-structured interviews conducted with senior managers of organizations operating across various sectors in Kosovo. Data collection was carried out through open-ended interview questions, allowing for the elicitation of in-depth assessments regarding internal organizational conditions and external environmental dynamics. To ensure analytical consistency and enable quantitative treatment of the data, qualitative responses were calibrated using a four-point ordinal scale. For the stimulating variables—namely strengths and opportunities—a coding scheme from 1 to 4 was applied, where 1 represents a low impact and 4 indicates a superior level of influence. Conversely, for constraining variables—namely weaknesses and threats—an inverse coding was used, where 1 indicates a high level of negative impact and 4 represents a low level of risk or weakness. This coding system ensures conceptual harmonization across all dimensions and facilitates multi-criteria comparison.

Strategic agility was operationalized through the four dimensions of SWOT analysis: strengths, weaknesses, opportunities, and threats. Each dimension comprises eight empirically identified and validated variables, resulting in a total of 32 variables integrated into the coding and analysis process. These variables were selected based on their theoretical and contextual relevance, reflecting the organizational and institutional realities of Kosovo. Following the coding and normalization of the data, the study applies the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) as the primary analytical tool for deriving results. TOPSIS is used to transform multidimensional assessments into a structured decision-making model, enabling the ranking of strategic alternatives according to their proximity to the ideal solution. This method is particularly suitable for the study, as it allows for the simultaneous evaluation of multiple, often conflicting criteria while maintaining transparency and methodological rigor. Within the TOPSIS model, six strategic alternatives were constructed, representing different decision options for organizational leaders. These alternatives were evaluated against the 32 variables derived from the SWOT analysis, with each criterion assigned a corresponding weight based on strategic importance determined through expert assessments and empirical evidence (*see table 1*).

Table 1: Preview of SWOT axis with coded variables divided in Endo-Exo analysis

	Endogenous			Exogenous		
	Axis	Variable	Coding	Axis	Variable	Coding
Endogenous	S	Capital circle	x1	W	Exportation	x9
		Increasing investments	x2		Skills and competence	x10
		Possibility of growth	x3		Innovation	x11
		Extend in markets	x4		Market penetration	x12
		Infrastructure	x5		Profitable industry	x13
		Profitability	x6		Technology	x14
		Quality	x7		Limited investments	x15
		Concentration	x8		Financing	x16
	O	Systematic growth	x17	T	Rivalry	x25
		Quality in improving	x18		Taxation	x26
		Focused in innovation	x19		Informal economy	x27
		Penetration in broad markets	x20		Unstable environment	x28
		Motivation of staff	x21		Laws in force	x29
		Consultancy	x22		Staff migration	x30
		Employees education	x23		Income taxes	x31
		Investments in targets	x24		Crisis	x32

Source: author's own work

The analysis was conducted following the standard steps of the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) methodology, including the construction of the decision matrix, its normalization, application of weights, identification of positive and negative ideal solutions, calculation of separation distances, and computation of relative closeness coefficients. This model reflects an optimal balance between leveraging internal strengths, minimizing weaknesses, capitalizing on environmental opportunities, and managing external threats. In this way, the proposed methodology enables the derivation of clear, concise, and empirically grounded decisions, providing an advanced decision-support tool for leaders operating under conditions of complexity and uncertainty. The methodological framework and analytical procedure for integrating SWOT analysis into TOPSIS is realized through a structured operationalization process, which transforms traditional strategic analysis from a primarily descriptive approach into a formal, multi-criteria decision-making model.

In this study, SWOT is not treated merely as a diagnostic tool but as an analytical framework that provides the foundational criteria for the mathematical modeling of strategic alternatives within the TOPSIS framework. Each dimension represents a set of strategic criteria, with strengths and weaknesses reflecting the organization's endogenous factors, while opportunities and threats represent exogenous environmental factors. After completing the coding phase, the initial decision matrix is constructed, where the rows represent the strategic alternatives (the six decision options) and the columns represent the 32 SWOT criteria. Each element of the matrix reflects the assessment of a specific alternative against a given criterion, based on the average or aggregated evaluations obtained from the 100 case studies. The next step involves normalizing the decision matrix to eliminate the effects of differing measurement units and ensure comparability across criteria. This step guarantees that all criteria are expressed on a common scale. Following normalization, the weighted decision matrix is applied. Each criterion is assigned a weight reflecting its relative strategic importance, derived from expert evaluations and the consensus reached through the research process. The normalized values are multiplied by their respective weights to produce the weighted matrix, which represents the actual influence of each criterion on decision-making. Subsequently, the positive ideal solution and the negative ideal solution are determined.

The positive ideal solution represents the most favorable combination of values across all criteria, while the negative ideal solution represents the least favorable combination. For stimulating criteria, the positive ideal solution is identified as the maximum value, whereas for constraining criteria it is the minimum value, reflecting the strategic logic of integrating SWOT within the TOPSIS framework. Next, the separation distances of each alternative from both the positive and negative ideal solutions are calculated, typically using the Euclidean distance metric. These distances measure how close or far each strategic alternative is from the ideal and non-ideal configurations. In the final stage, the relative closeness coefficient for each alternative is computed, expressing the ratio between the distance from the negative ideal solution and the sum of distances from both ideal solutions. The final TOPSIS outcome is the ranking of strategic alternatives based on this relative closeness coefficient, where the alternative with the highest value is considered closest to the strategic ideal. In the context of this study, this top-ranked alternative represents the optimal decision-making model, achieving the best balance between leveraging internal strengths, minimizing weaknesses, capitalizing on opportunities, and

managing external threats. The integration of SWOT into TOPSIS enables an advanced analytical approach, where strategic diagnosis and multi-criteria decision-making interact within a single coherent model. This process enhances the scientific rigor of the analysis while also providing a practical and actionable tool for organizational leaders, guiding them toward clear, structured, and empirically supported strategic decisions.

4 Results and Discussions

The initial matrix contains six decision alternatives (Decision 1 – Decision 6), evaluated across eight criteria (X1–X8). The evaluations are provided on a numerical scale (e.g., 1–5), reflecting the experts’ perceptions of each alternative’s performance against each criterion.

$$w_i' = \frac{w_i}{\sum_i^n w_i} \tag{1}$$

$$\sum_i^n w_i' = 1 \tag{2}$$

Table 2: Variables framework and coding process

	Endogenous								Exogenous																									
	s (X1...X4)				w (X1...X4)				o (X1...X4)				t (X1...X4)																					
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8										
Decision 1 <i>Expansion into international markets</i>	3	3	2	2	4	3	3	2	2	2	1	2	2	1	2	1	2	1	2	1	3	2	4	2	3	3	3	2	1	2	3	4	2	1
Decision 2 <i>Innovation and product differentiation</i>	3	3	2	2	4	3	3	2	3	2	3	2	3	1	2	3	3	2	3	2	3	2	3	2	4	3	2	2	3	2	3	4	2	1
Decision 3 <i>Focus on human capital development</i>	4	3	4	2	2	3	3	2	2	2	3	1	2	2	3	3	3	3	3	4	2	3	4	3	3	3	3	2	3	2	2	4	3	1
Decision 4 <i>Technological and digital transformation</i>	3	2	3	3	2	3	4	4	3	2	2	1	3	3	3	2	3	3	2	3	2	2	2	2	3	3	2	4	3	2	3	2	4	
Decision 5 <i>Financial consolidation and risk management</i>	2	3	3	4	3	3	3	2	3	3	2	2	3	2	3	2	2	2	3	2	1	2	2	3	3	2	2	3	2	2	3	2	3	
Decision 6 <i>Market consolidation and operational efficiency</i>	3	4	3	2	2	3	4	3	2	1	2	3	2	3	2	1	3	3	4	3	3	2	3	3	3	3	2	2	3	2	2	2	3	
AVG	3.00	3.00	2.83	2.50	2.83	3.00	3.33	2.50	2.00	2.17	1.83	2.50	2.00	2.50	2.00	2.67	2.67	3.00	2.17	2.83	2.33	3.00	3.00	2.67	2.00	2.83	2.33	2.33	3.33	2.17	2.17	2.17	2.17	
STDEV	0.63	0.63	0.75	0.84	0.38	0.00	0.52	0.84	0.55	0.63	0.75	0.75	0.55	0.89	0.55	0.89	0.52	0.52	0.89	0.75	0.75	0.82	0.63	0.00	0.52	0.00	0.75	0.52	0.82	0.61	1.33	1.33		
WEIGHT	4	4	3	4	3	4	3	2	1	1	2	2	1	3	2	3	3	4	2	3	3	4	2	2	2	2	1	2	3	1	2	2		
Character	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b		
Norm. weight	0.05	0.05	0.04	0.05	0.04	0.05	0.04	0.02	0.01	0.01	0.02	0.02	0.01	0.04	0.02	0.04	0.04	0.04	0.05	0.02	0.04	0.04	0.05	0.02	0.02	0.02	0.01	0.02	0.04	0.01	0.02	0.02		

Source: author’s own calculation

Table 2 represents the empirical basis of the analysis. The variations in the evaluations indicate that the alternatives do not perform equally across all criteria. Some alternatives exhibit high values in growth and innovation criteria, while others are stronger in stability and operational efficiency. This highlights the need for a multi-criteria approach, as no single alternative dominates across all dimensions.

After normalization, all criterion values are transformed onto a comparable scale. This eliminates the influence of differing measurement units and ensures that no criterion gains an artificial advantage due to its numerical magnitude.

$$x''_{ij} = \frac{x'_i}{\sqrt{\sum_k x'^2_k}} \tag{3}$$

Table 3. Normalization of the variables

Variable normalization	Endogenous																Exogenous															
	s (X1...Xn)								w (X1...Xn)								o (X1...Xn)								t (X1...Xn)							
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8
	Decision 1 <i>Expansion into international markets</i>	0.40	0.40	0.27	0.53	0.40	0.40	0.27	0.32	0.32	0.16	0.3	0.32	0.2	0.3	0.2	0.30	0.30	0.45	0.30	0.60	0.30	0.45	0.45	0.45	0.30	0.30	0.30	0.45	0.60	0.30	0.15
Decision 2 <i>Innovation and product differentiation</i>	0.40	0.40	0.27	0.53	0.40	0.40	0.27	0.48	0.32	0.48	0.3	0.48	0.2	0.3	0.5	0.45	0.30	0.45	0.30	0.60	0.60	0.45	0.45	0.30	0.30	0.45	0.30	0.45	0.60	0.30	0.15	
Decision 3 <i>Focus on human capital development</i>	0.53	0.40	0.53	0.27	0.27	0.40	0.40	0.27	0.32	0.32	0.48	0.2	0.32	0.3	0.5	0.45	0.45	0.60	0.30	0.45	0.60	0.45	0.45	0.45	0.30	0.45	0.30	0.60	0.45	0.15		
Decision 4 <i>Technological and digital transformation</i>	0.40	0.27	0.40	0.40	0.27	0.40	0.53	0.53	0.48	0.32	0.32	0.2	0.48	0.5	0.5	0.3	0.45	0.45	0.30	0.45	0.30	0.30	0.45	0.45	0.30	0.60	0.45	0.30	0.45	0.30	0.60	
Decision 5 <i>Financial consolidation and risk management</i>	0.27	0.40	0.40	0.53	0.40	0.40	0.27	0.48	0.48	0.32	0.3	0.48	0.3	0.5	0.3	0.30	0.45	0.30	0.15	0.30	0.30	0.45	0.45	0.30	0.30	0.45	0.30	0.30	0.45	0.30	0.45	
Decision 6 <i>Market consolidation and operational efficiency</i>	0.40	0.53	0.40	0.27	0.27	0.40	0.53	0.40	0.32	0.16	0.32	0.5	0.32	0.5	0.3	0.2	0.45	0.45	0.60	0.45	0.45	0.30	0.45	0.45	0.45	0.30	0.30	0.45	0.30	0.30	0.45	

Source: author's own calculation

Normalization is a critical step, as it ensures objectivity in comparison (see table 2). At this stage, it is observed that some alternatives that had high absolute values in the initial matrix lose their relative dominance, while others gain weight. This indicates that relative performance is more important than absolute values in strategic decision-making.

The findings indicate that strategic alternatives performing strongly in opportunity-driven and strength-based criteria gained a competitive advantage, whereas those exposed to high threat or weakness-related criteria experienced a decline in overall ranking. The criteria are then multiplied by their respective weights, reflecting the strategic importance of each criterion in the decision-making process. More critical criteria exert a greater influence on the final outcome.

$$wie^m_{ij} = w'_i * x''_{ij} \tag{4}$$

Table 4: Weighted diagnostic matrix of variables

Weighted diagnostic matrix of variables

	Endogenous																Exogenous															
	s (X1...X8)								w (X1...X8)								o (X1...X8)								t (X1...X8)							
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8
Decision 1 <i>Expansion into international markets</i>	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.00	
Decision 2 <i>Innovation and product differentiation</i>	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00
Decision 3 <i>Focus on human capital development</i>	0.03	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.02	0.03	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	
Decision 4 <i>Technological and digital transformation</i>	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Decision 5 <i>Financial consolidation and risk management</i>	0.01	0.02	0.01	0.03	0.01	0.02	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Decision 6 <i>Market consolidation and operational efficiency</i>	0.02	0.03	0.01	0.01	0.01	0.02	0.03	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.02	0.03	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	

Source: author’s own calculation

This table 4, reflects the organization’s strategic priorities. Alternatives that perform well on highly weighted criteria gain a significant advantage, whereas those that are strong only in less important criteria lose position. This stage directly links the numerical analysis to the management’s strategic vision and objectives.

$$v_i^+ = \begin{cases} \max_j v_{ij} & \text{for benefit} \\ \min_j v_{ij} & \text{for no-benefit} \end{cases}$$

$$v_i^- = \begin{cases} \min_j v_{ij} & \text{for benefit} \\ \max_j v_{ij} & \text{for no-benefit} \end{cases} \tag{5}$$

Table 5: Determination of ideal object and ant-ideal object

	Endogenous																Exogenous															
	s (X1...X8)								w (X1...X8)								o (X1...X8)								t (X1...X8)							
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8
Decision 1 <i>Expansion into international markets</i>	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.00		
Decision 2 <i>Innovation and product differentiation</i>	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.02	0.01	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00		
Decision 3 <i>Focus on human capital development</i>	0.03	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00		
Decision 4 <i>Technological and digital transformation</i>	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
Decision 5 <i>Financial consolidation and risk management</i>	0.01	0.02	0.01	0.03	0.01	0.02	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.02	0.01	0.01	0.02	0.01	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
Decision 6 <i>Market consolidation and operational efficiency</i>	0.02	0.03	0.01	0.01	0.01	0.02	0.03	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.03	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.01		
Character	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	nb	b	b	b	b	b	b	b	b	nb	nb	nb	nb	nb	nb		
d+	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.03	0.01	0.01	0.00	0.01	0.02	0.00	0.01	
d-	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

Source: author’s own calculation

Alternatives that are closer to the positive ideal solution and farther from the negative ideal solution are considered more favorable. This step is essential because it evaluates not only absolute performance but also the relative positioning of alternatives with respect to extreme scenarios (best and worst).

$$[+] = (w_{ij}^m - v_i^+)^2 \tag{6}$$

$$[-] = (w_{ij}^m - v_i^-)^2 \tag{7}$$

The values presented in the table represent the positive ideal distance (d^+) of each decision alternative from the ideal solution. The smaller the d^+ value, the closer the alternative is to the optimal strategic solution, whereas the negative ideal distance values (d^-) indicate that the larger the d^- value, the farther the alternative is from the non-optimal strategic solution.

$$d_j^+ = \sqrt[p]{\sum_{i=1}^m |v_{ij} - v_i^+|^p}, \tag{8}$$

[d+]	Endogenous																Exogenous																
	s								w								o								t								
	(X1.....Xn)								(X1.....Xn)								(X1.....Xn)								(X1.....Xn)								
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	
Decision 1	Expansion into international markets	0.00004	0.00004	0.00010	0.00017	0.00000	0.00000	0.00004	0.00010	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00003	0.00003	0.00005	0.00001	0.00000	0.00012	0.00005	0.00000	0.00001	0.00000	0.00000	0.00000	0.00003	0.00001	0.00000	0.00000	
Decision 2	Innovation and product differentiation	0.00004	0.00004	0.00010	0.00017	0.00000	0.00000	0.00004	0.00010	0.00002	0.00000	0.00002	0.00002	0.00002	0.00000	0.00000	0.00006	0.00000	0.00002	0.00005	0.00001	0.00003	0.00012	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00001	0.00000	0.00000	
Decision 3	Focus on human capital development	0.00000	0.00004	0.00000	0.00017	0.00010	0.00000	0.00004	0.00010	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00003	0.00006	0.00000	0.00000	0.00001	0.00003	0.00000	0.00005	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	
Decision 4	Technological and digital transformation	0.00004	0.00017	0.00002	0.00004	0.00010	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00003	0.00002	0.00000	0.00000	0.00002	0.00000	0.00012	0.00012	0.00022	0.00000	0.00001	0.00000	0.00001	0.00001	0.00000	0.00000	0.00012	
Decision 5	Financial consolidation and risk management	0.00017	0.00004	0.00002	0.00000	0.00002	0.00000	0.00004	0.00010	0.00002	0.00002	0.00000	0.00002	0.00002	0.00000	0.00003	0.00002	0.00003	0.00000	0.00002	0.00005	0.00012	0.00012	0.00005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	
Decision 6	Market consolidation and operational efficacy	0.00004	0.00000	0.00002	0.00017	0.00010	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00004	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00012	0.00012	0.00005	0.00000	0.00001	0.00000	0.00000	0.00001	0.00000	0.00000	0.00005

Source: author's own calculation

[d-]	Endogenous																Exogenous																
	s								w								o								t								
	(X1.....Xn)								(X1.....Xn)								(X1.....Xn)								(X1.....Xn)								
	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	x1	x2	x3	x4	x5	x6	x7	x8	
Decision 1	Expansion into international markets	0.00004	0.00004	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00002	0.00003	0.00000	0.00003	0.00000	0.00005	0.00001	0.00003	0.00000	0.00022	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001	0.00012
Decision 2	Innovation and product differentiation	0.00017	0.00004	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00004	0.00002	0.00000	0.00000	0.00000	0.00003	0.00003	0.00022	0.00001	0.00003	0.00012	0.00005	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00000	0.00000	0.00012
Decision 3	Focus on human capital development	0.00004	0.00000	0.00002	0.00004	0.00000	0.00000	0.00004	0.00010	0.00000	0.00000	0.00000	0.00004	0.00000	0.00000	0.00000	0.00002	0.00003	0.00003	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00001	0.00000
Decision 4	Technological and digital transformation	0.00000	0.00004	0.00002	0.00017	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00000	0.00001	0.00000	0.00000	0.00001	0.00003	0.00000	0.00001	0.00001
Decision 5	Financial consolidation and risk management	0.00004	0.00017	0.00002	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00002	0.00000	0.00000	0.00002	0.00000	0.00003	0.00003	0.00002	0.00003	0.00000	0.00005	0.00003	0.00000	0.00005	0.00000	0.00000	0.00000	0.00001	0.00000	0.00003	0.00001	0.00001	0.00001
Decision 6	Market consolidation and operational efficacy	0.00004	0.00017	0.00002	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00002	0.00000	0.00000	0.00000	0.00002	0.00000	0.00003	0.00003	0.00022	0.00005	0.00003	0.00000	0.00005	0.00000	0.00000	0.00000	0.00001	0.00000	0.00003	0.00001	0.00001	0.00001	

Source: author's own calculation

Table 7: Distance from ideal object

Object		+
Decision 1	<i>Expantion into international markets</i>	0.03100
Decision 2	<i>Innovation and product differentiation</i>	0.02811
Decision 3	<i>Focus on human capital development</i>	0.02742
Decision 4	<i>Technological and digital transformation</i>	0.03694
Decision 5	<i>Financial consolidation and risk management</i>	0.03406
Decision 6	<i>Market consolidation and operational efficacy</i>	0.02800

Source: author's own calculation

The results indicate that technological and digital transformation (0.03694) and financial consolidation with risk management (0.03406) represent the most preferred strategic alternatives, reflecting the importance of adaptive capabilities and financial stability in decision-making.

$$d_j^- = \sqrt[p]{\sum_{i=1}^m \left| \frac{v_i}{j} - v_i^- \right|^p} \tag{9}$$

Table 8: Distance of anti-ideal object

Object		-
Decision 1	<i>Expantion into international markets</i>	0.04369
Decision 2	<i>Innovation and product differentiation</i>	0.03840
Decision 3	<i>Focus on human capital development</i>	0.03016
Decision 4	<i>Technological and digital transformation</i>	0.03673
Decision 5	<i>Financial consolidation and risk management</i>	0.04180
Decision 6	<i>Market consolidation and operational efficacy</i>	0.02955

Source: author's own calculation

Expantion into international markets (0.04369) and financial consolidation with risk management (0.04180) exhibit the greatest distance, indicating the strongest avoidance of the least favorable scenario.

Table 9: Integration of ideal and anti-ideal object

Object		d+ + d-
Decision 1	<i>Expantion into international markets</i>	0.07469
Decision 2	<i>Innovation and product differentiation</i>	0.06651
Decision 3	<i>Focus on human capital development</i>	0.05759
Decision 4	<i>Technological and digital transformation</i>	0.07368
Decision 5	<i>Financial consolidation and risk management</i>	0.07586
Decision 6	<i>Market consolidation and operational efficacy</i>	0.05756

The values (d⁺ + d⁻) shows that Financial Consolidation and Risk Management (0.07586) achieves the highest performance, demonstrating the greatest proximity to the ideal solution.

This alternative is followed by Expansion into International Markets (0.07469) and Technological and Digital Transformation (0.07368), which also exhibit relatively strong strategic potential. In contrast, Decision 3 and Decision 6 record the lowest values, suggesting a comparatively lower strategic impact when evaluated against the other alternatives.

$$S_j = \frac{a_j^-}{a_j^+ - a_j^-} \tag{10}$$

The relative closeness coefficient (S_j) was calculated for each alternative, and the final ranking was determined based on these values. The alternative with the highest S_j value is identified as the most suitable strategic option.

Table 10: Construction of the aggregate measure of decisions

Object		Sj	Ranking
Decision 1	<i>Expantion into international markets</i>	0.58496	1
Decision 2	<i>Innovation and product differentiation</i>	0.57741	2
Decision 3	<i>Focus on human capital development</i>	0.52380	4
Decision 4	<i>Technological and digital transformation</i>	0.49859	6
Decision 5	<i>Financial consolidation and risk management</i>	0.55096	3
Decision 6	<i>Market consolidation and operational efficacy</i>	0.51347	5

Source: author's own calculation

The final ranking clearly shows that the best strategic alternative is not necessarily the most aggressive or the most conservative one, but rather the option that achieves an optimal balance among benefits, risks, and organizational capabilities. According to the preliminary ranking results, the alternatives that are most focused and highly ranked in terms of attractiveness and strategic necessity are Decision 1 and Decision 2, followed by Decision 5, Decision 3, Decision 6, with the lowest-ranked option being Decision 4. These rankings were calculated and derived through the relative closeness coefficient S_j . The highest-ranked alternative represents the most balanced strategic option, effectively leveraging organizational strengths and opportunities while minimizing weaknesses and threats. Conversely, lower-ranked alternatives indicate higher exposure to risks or insufficient utilization of internal capabilities.

$$\begin{cases}
 1 & \text{for } m_s \in (\bar{m}_{m_{s0}} + \sigma_{m_{s0}}; \infty), \\
 2 & \text{for } m_s \in (\bar{m}_{m_{s0}}; \bar{m}_{m_{s0}} + \sigma_{m_{s0}}), \\
 3 & \text{for } m_s \in (\bar{m}_{m_{s0}} - \sigma_{m_{s0}}; \bar{m}_{m_{s0}}), \\
 4 & \text{for } m_s \in (-\infty; \bar{m}_{m_{s0}} - \sigma_{m_{s0}}).
 \end{cases} \tag{11}$$

Table 11: Classification of the objects-decisions

Object		Sj	Ranking	Class
Decision 1	<i>Expantion into international markets</i>	0.58496	1	1
Decision 2	<i>Innovation and product differentiation</i>	0.57741	2	1
Decision 3	<i>Focus on human capital development</i>	0.52380	4	3
Decision 4	<i>Technological and digital transformation</i>	0.49859	6	4
Decision 5	<i>Financial consolidation and risk management</i>	0.55096	3	2
Decision 6	<i>Market consolidation and operational efficacy</i>	0.51347	5	3
	AVG	0.54153		
	STDEV	0.03523	Border	0.57677
	MEAN+STDEV	0.57677		0.54153
	MEAN-STDEV	0.50630		0.50630

Source: author's own calculation

The results demonstrate that the integration of SWOT and TOPSIS provides a robust and systematic framework for strategic decision-making. Unlike traditional SWOT analysis, which is primarily descriptive, the combined approach enables quantitative evaluation and objective comparison of strategic alternatives. The ranking outcomes highlight that strategic success is not solely dependent on

aggressive growth or conservative stability, but rather on achieving an optimal balance between internal capabilities and external environmental conditions. Furthermore, the sensitivity of the results to criterion weighting emphasizes the critical role of managerial judgment in defining strategic priorities (Morina & Elezaj, 2025; Elezaj, Morina & Dreshaj, 2025).

5 Conclusions

The results indicate that the strategic alternatives exhibit different levels of proximity to the ideal solution, reflected by the S_j values and their respective rankings. The alternative Expansion into International Markets ($S_j = 0.58496$) ranks first and demonstrates the highest strategic performance, followed by Innovation and Product Differentiation ($S_j = 0.57741$). These two alternatives belong to Class 1, indicating the highest potential for improving organizational performance. The alternative Financial Consolidation and Risk Management ($S_j = 0.55096$) ranks third and is classified within Class 2, indicating a relatively strong but not optimal level of strategic performance. Meanwhile, Focus on Human Capital Development ($S_j = 0.52380$) and Market Consolidation and Operational Efficiency ($S_j = 0.51347$) fall into Class 3, representing strategies with moderate impact that require further improvements to enhance their effectiveness. Finally, Technological and Digital Transformation ($S_j = 0.49859$) records the lowest value and is classified within Class 4, indicating a relatively low level of alignment with the ideal solution under the current conditions. Furthermore, the statistical thresholds derived from $MEAN \pm STDEV$ establish the classification boundaries used in the table. The upper limit ($MEAN + STDEV = 0.57677$) identifies alternatives with very high performance (Class 1), while the lower limit ($MEAN - STDEV = 0.50630$) separates strategies with lower strategic impact (Class 4). These statistical parameters therefore provide an objective basis for grouping the decision alternatives into different performance classes and for supporting the interpretation of the ranking results.

Class 1: High Priority Decisions – these decisions are strategically the most critical, as evidenced by their highest S_j values (0.58496 and 0.57741). Expanding into international markets represents a major opportunity for growth and exposure to new revenue streams.

At the same time, focusing on innovation and differentiating products ensures the organization stays competitive and relevant in fast-evolving markets. Together, these decisions form the backbone of a forward-looking strategy that emphasizes both growth and uniqueness. The organization should create detailed market entry strategies, including feasibility studies, risk assessments, and adaptation plans for local regulations and customer preferences. Investment in R&D is essential to maintain product innovation. Regular monitoring and flexibility in strategy execution are critical to respond to market feedback. Care must be taken to manage financial exposure and maintain brand integrity while pursuing ambitious growth.

Class 2: Upper-Medium Importance – this decision holds significant importance ($S_i = 0.55096$) as it ensures the financial stability and resilience of the organization. Sound financial management provides the foundation upon which higher-priority strategic moves can be safely executed. Without strong financial control, even the most promising growth strategies may falter. Implement robust internal controls, consolidate financial structures, and maintain continuous monitoring of risk exposure. This decision also involves regularly reviewing financial performance and adapting plans to avoid unnecessary vulnerabilities. Careful attention should be paid to regulatory compliance, transparency, and the balance between risk mitigation and strategic investments.

Class 3: Medium Importance – with S_i values of 0.52380 and 0.51347, these decisions are central for strengthening organizational capacity and operational performance. Investing in human capital ensures the workforce is skilled, motivated, and aligned with strategic goals. Operational improvements and market consolidation enhance efficiency and competitive positioning. While not the very top priority, these decisions are crucial for long-term sustainability. Develop comprehensive training programs and career development initiatives. Optimize operational processes to reduce costs and increase efficiency. Align workforce planning with strategic goals to ensure the right talent is in place. Care should be taken to maintain employee engagement while implementing operational changes to avoid disruption of services or quality.

Class 4: Medium-Low Importance – although lower in priority ($S_i = 0.49859$), technological and digital transformation is still important for future competitiveness. It enhances efficiency, supports innovation, and positions the organization for long-

term adaptability. However, the benefits may take longer to materialize and require careful management to prevent disruption.

Start with pilot projects to test new technologies before scaling organization-wide. Provide training and change management programs to ensure adoption by staff. Continuously monitor technological investments and assess their impact on operational performance. Care should be taken to avoid overcomplicating processes or incurring costs without clear returns.

The ranking and classes suggest a structured approach: prioritize high-impact growth and innovation initiatives (Class 1), ensure strong financial foundations (Class 2), strengthen internal capacity and operational performance (Class 3), and gradually implement technological transformation (Class 4). This phased approach allows the organization to balance ambition with stability, ensuring long-term sustainable development. The integration of SWOT with the TOPSIS method provides a robust analytical approach, enabling not only the selection of the optimal strategy but also the determination of the prioritization and timing of strategy implementation for the future.

Acknowledgment

A special acknowledgment is extended to all the respondent businesses that did not hesitate to share the data for this research and provided support with all the necessary data. Special appreciation is also addressed to the University of Maribor, Slovenia, particularly to the conference organized by them, for the opportunity and hospitality.

References

- Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility. *Long Range Planning*, 43(2–3), 370–382. <https://doi.org/10.1016/j.lrp.2009.07.006>
- Teece, D. J., Peteraf, M., & Leih, S. (2016). *Dynamic capabilities and organizational agility*. California Management Review, 58(4), 13–35. <https://doi.org/10.1525/cmr.2016.58.4.13>
- Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2021). Strategic agility, business model innovation, and firm performance. *Journal of Business Research*, 123, 262–273. <https://doi.org/10.1016/j.jbusres.2020.09.020>
- Teece, D. J. (2018). *Business models and dynamic capabilities*. Long Range Planning, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Junni, P., Sarala, R., Taras, V., & Tarba, S. Y. (2015). Organizational ambidexterity and performance. *Academy of Management Perspectives*, 29(2), 299–312. <https://doi.org/10.5465/amp.2013.0125>
- Sampath, R., & Krishnamoorthy, B. (2022). MCDM applications in strategic management. *Management Decision*, 60(9), 2437–2462. <https://doi.org/10.1108/MD-12-2021-1905>

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Elezaj, E., & Kuqi, B. (2021). Rational decision making based on analyzing organizational surround factors: a view of crafting differentiality and effectiveness in Kosovo enterprises. *KNOWLEDGE - International Journal*, 49(1), 41–45. Retrieved from <https://ojs.ikm.mk/index.php/kij/article/view/4618>
- Shin, H., Lee, J. N., Kim, D., & Rhim, H. (2015). Strategic agility of Korean firms. *Information & Management*, 52(6), 713–728. <https://doi.org/10.1016/j.im.2015.05.002>
- Eisenhardt, K. M., & Martin, J. A. (2000). *Dynamic capabilities: What are they?* *Strategic Management Journal*, 21(10–11), 1105–1121. [https://doi.org/10.1002/1097-0266\(200010/11\)21:10/11](https://doi.org/10.1002/1097-0266(200010/11)21:10/11)
- Volberda, H. W., Van Den Bosch, F. A. J., & Heij, C. V. (2021). *Reinventing strategic agility*. *Long Range Planning*, 54(2), Article 102052. <https://doi.org/10.1016/j.lrp.2020.102052>
- Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S., Dubey, R., & Childe, S. J. (2017). *Big data analytics and firm performance: Effects of dynamic capabilities*. *Journal of Business Research*, 70, 356–365. <https://doi.org/10.1016/j.jbusres.2016.08.009>
- Bettis, R. A., Gambardella, A., Helfat, C., & Mitchell, W. (2016). Dynamic capabilities and organizational agility. *Strategic Management Journal*, 37(4), 576–592. <https://doi.org/10.1002/smj.2372>
- Adner, R., & Helfat, C. E. (2003). Corporate effects and dynamic managerial capabilities. *Strategic Management Journal*, 24(10), 1011–1025. <https://doi.org/10.1002/smj.331>
- Kahraman, C., Öztaysi, B., Sari, İ. U., & Turanoğlu, E. (2015). Fuzzy analytic hierarchy process with interval type-2 fuzzy sets. *Expert Systems with Applications*, 42(22), 9025–9034. <https://doi.org/10.1016/j.eswa.2015.07.008>
- Greco, S., Ehr Gott, M., & Figueira, J. R. (2016). *Multiple criteria decision analysis: State of the art surveys*. Springer. <https://doi.org/10.1007/978-3-662-50445-8>
- Behzadian, M., Otahsara, S. K., Yazdani, M., & Ignatius, J. (2012). A state-of-the-art survey of TOPSIS applications. *Expert Systems with Applications*, 39(17), 13051–13069. <https://doi.org/10.1016/j.eswa.2012.05.056>
- Hwang, C. L., & Yoon, K. (1981). *Multiple attribute decision making: Methods and applications* (Lecture Notes in Economics and Mathematical Systems, Vol. 186). Springer. <https://doi.org/10.1007/978-3-642-48318-9>
- Meyer, K. E., & Peng, M. W. (2016). Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47(1), 3–22. <https://doi.org/10.1057/jibs.2015.34>
- Peng, M. W., Sun, S. L., Pinkham, B., & Chen, H. (2017). The institution-based view as a third leg for strategy tripod. *Academy of Management Perspectives*, 31(3), 217–234. <https://doi.org/10.5465/amp.2016.0194>
- Elezaj, E., Kuqi, B. (2023). Systematic analyze-weight-evaluate (AWE) approach into decision making: A derivation via externative organizational factors. *International Journal of Sustainable Development and Planning*, Vol. 18, No. 3, pp. 835-845. <https://doi.org/10.18280/ijstdp.180319>
- Elezaj, E. (2025). Strategic posture and performance: how space matrix lens can assess industry dynamism – a systemic view. *KNOWLEDGE - International Journal*, 73(1), 181–185. Retrieved from <https://ojs.ikm.mk/index.php/kij/article/view/7902>
- Krasniqi, I., Elezaj, E. (2023). Revitalizing Kosovo's manufacturing organizations: Long-term strategic planning with QSPM. *International Journal of Sustainable Development and Planning*, Vol. 18, No. 6, pp. 1857-1864. <https://doi.org/10.18280/ijstdp.180621>
- Birkinshaw, J., Zimmermann, A., & Raisch, S. (2016). *How do firms adapt to discontinuous change?* *California Management Review*, 58(4), 5–26. <https://doi.org/10.1525/cm.2016.58.4.5>
- Chen, J., Neubaum, D. O., Reilly, R. R., & Lynn, G. S. (2015). *The relationship between team autonomy and new product development performance*. *Journal of Product Innovation Management*, 32(6), 949–964. <https://doi.org/10.1111/jpim.12210>

- Elezaj, E., Sejdija, O., Kuqi, B. (2023). Applying the SPACE model for strategic decision-making in SMEs: An empirical analysis from Kosovo. *International Journal of Sustainable Development and Planning*, Vol. 18, No. 8, pp. 2531-2539. <https://doi.org/10.18280/ijstdp.180824>
- Elezaj, E. and Kuqi, B. (2023). Quantitative Strategic Planning Matrix as a Superior Strategic Management Tools and Techniques in Evaluating Decision Alternatives. *MENDEL*, 29, 2 (Dec. 2023), 90-96. DOI:<https://doi.org/10.13164/mendel.2023.2.090>
- Puffer, S. M., McCarthy, D. J., & Boisot, M. (2019). *Entrepreneurship in Russia and China: Institutional change and implications*. *Journal of World Business*, 54(4), 100996. <https://doi.org/10.1016/j.jwb.2019.03.002>
- Zavadskas, E. K., Turskis, Z., Antucheviciene, J., & Zakarevicius, A. (2012). *Optimization methods for multiple criteria decision-making: A review*. *Technological and Economic Development of Economy*, 18(2), 331–357. <https://doi.org/10.3846/20294913.2012.703491>
- Mardani, A., Zavadskas, E. K., Khalifah, Z., Jusoh, A., & Nor, K. M. (2016). *Multiple criteria decision-making techniques and their applications – A review of the literature from 2000 to 2014*. *Economic Research-Ekonomiska Istraživanja*, 29(1), 779–791. <https://doi.org/10.1080/1331677X.2016.1181748>
- Wang, T.-C., Wang, C.-N., & Huang, Y.-F. (2019). *Supply chain decision making using multiple criteria decision analysis: A case study*. *Applied Soft Computing*, 82, 105559. <https://doi.org/10.1016/j.asoc.2019.105559>
- Morina, F., & Elezaj, E. (2025). The role of strategic financial management in driving sustainable growth in a green economy. *Agora International Journal of Economical Sciences*, 19(1), 236-253. DOI:<https://doi.org/10.15837/aijes.v19i1.7155>
- Elezaj, E., Morina, F., & Dreshaj, A. (2025). Green economy indicators. In *Greening our economy for a sustainable future* (pp. 21-32). Elsevier. <https://doi.org/10.1016/B978-0-443-23603-7.00003-0>

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