

Managerial decisions and adaptation strategy of Riga Aeronautical Institute in a volatile, uncertain, complex and ambiguous (VUCA) world

Decyzje zarządcze i strategia adaptacyjna Instytutu Lotnictwa w Rydze (Łotwa) w zmiennym, niepewnym, złożonym i niejednoznacznym świecie (VUCA)

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Abstract

Managerial decision-making in higher education institutions today occurs within the context of a VUCA environment—characterized by volatility, uncertainty, complexity, and ambiguity—which shapes a unique framework for modern organizational and sociocultural realities. This article presents a case analysis of the Riga Aeronautical Institute (RAI), a private university in Latvia, focusing on the impact of the external environment and the development of an adaptive management strategy. Importantly, this case is not an isolated problem of a specific institution but serves as a model scenario illustrating systemic challenges faced by universities in a VUCA world, such as blurred internal regulations, a lack of sustainable procedures, and a high degree of external uncertainty (Bennett & Lemoine, 2014). A mixed-methods approach was used to obtain a comprehensive and objective view of the current external environment and to identify key challenges and opportunities for institutional adaptation.

The analysis is grounded in the concept of bounded rationality, the “garbage can model,” approaches to power and influence distribution, and behavioral economics with a focus on risk aversion. Key managerial bottlenecks and problems were identified, including unclear lines of authority among stakeholders, exclusion of certain actors from the decision-making process, limited experience in non-standard situations, and ambiguous organizational procedures.

The study employed a mixed-methods methodology, including expert evaluations from seven members of RAI’s management team and content analysis of external factors—demographic, economic, regulatory, and global educational trends. The results

indicate a moderately high level of uncertainty and ambiguity, underscoring the need for flexible governance models.

The article proposes a set of strategies for reducing managerial uncertainty and improving decision quality: problem decomposition, application of complex situation analysis techniques, increased stakeholder engagement, management of information flows, and prevention of groupthink. This study contributes to the development of management theory and practice under VUCA conditions by offering tools to build mature adaptation strategies for the Latvian higher education sector.

Keywords

RAI, groupthink, bottlenecks, garbage can model, uncertainty, VUCA world, rationality, flexible governance

1. Introduction

In today's rapidly evolving higher education landscape, managerial decision-making is profoundly challenged by the VUCA environment—marked by volatility, uncertainty, complexity, and ambiguity (Bennet & Lemoine, 2014; Friedman, 2006; Janis, 1982). This dynamic context shapes the organizational and sociocultural realities within which universities operate, demanding new adaptive strategies for governance (Barnett, 2000). This article explores these challenges through a case study of the Riga Aeronautical Institute (RAI), a private Latvian university navigating systemic issues such as unclear internal regulations, procedural fragility, and heightened external unpredictability (Cohen, March & Olsen, 1972). By integrating expert evaluations and comprehensive analysis of external demographic, economic, and regulatory factors, the study highlights how traditional rational decision-making models fall short in such conditions (Bazerman & Moore, 2012; Simon, 1957). Instead, it underscores the need for flexible, participatory, and behaviorally informed management approaches that can enhance institutional resilience and strategic adaptation in the VUCA world (Alvesson & Spicer, 2012; Weick, 1995).

2. Literature review

Rational decision-making is defined as a process aimed at achieving an optimal result through accurate assessment of values and risk attitudes by the decision-maker (DM) (Bazerman & Moore, 2012, p. 6). However, the classical rational model assumes ideal conditions that are rarely achievable in practice. The theory of bounded rationality, proposed by H. Simon, emphasizes that understanding the decision-making context is more important than adhering to normative models (Simon, 1957). Absolute rationality requires a clear problem definition, identification of all criteria and alternatives, and comprehensive evaluation—conditions that are rarely met in real-world scenarios, including university settings, due to limited information, time, and resources (Bazerman & Moore, 2012, pp. 4–5). Moreover, cognitive characteristics

and behavioral biases influence decision-making (Kahneman, 2011; Owens, 2000). Systematic judgment errors stem from psychological tendencies to maintain subjective views and justify existing preferences, a bias Bazerman terms “self-serving bias” (Bazerman & Moore, 2012, pp. 1–3). People also simplify decisions using heuristics—representativeness, availability, and anchoring, as demonstrated by D. Kahneman (2011). These cognitive and behavioral features underscore the limitations of rational approaches in real-life managerial decision-making. The term “VUCA world,” introduced by T. Friedman, describes today’s environment as volatile, uncertain, complex, and ambiguous—key factors shaping the conditions under which universities must make decisions (Friedman, 2006; Janis, 1982). These features generate stress and require quick responses, confidence, and the ability to find unique managerial solutions (Barnett, 2000), particularly amidst ever-changing political, social, and economic conditions (Alvesson & Spicer, 2012).

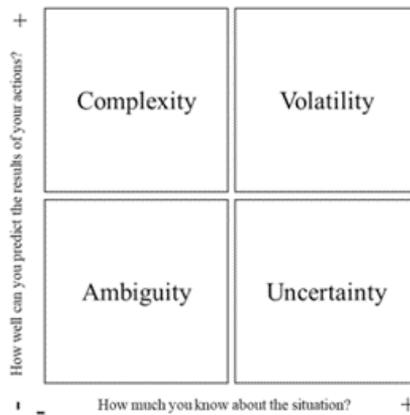


Figure 1. Illustration of VUCA dimensions and managerial implications used as a conceptual lens for the case study

S o u r c e: Bennett, & Lemoine, 2014.

Uncertainty affects not only the external but also the internal organizational environment. Despite the existence of normative models, managers rarely apply them, highlighting a disconnect between theory and practice (Barnett, 2000). Universities, as transforming organizations, often operate in a state of “organized anarchy” with unclear preferences, uncertain technologies, and fluid participation (Cohen, March & Olsen, 1972, p. 1).

Figure 2 illustrates the “garbage can” model, depicting loose couplings among decision streams (problems, solutions, participants, opportunities), which explains the observed process fragmentation at RAI.

Weick notes that “many aspects of organizations show weak connections between intentions and actions, between components that should be tightly coordinated, between means and goals”—a reflection of the challenges in coordinating decisions under uncertainty and procedural ambiguity.

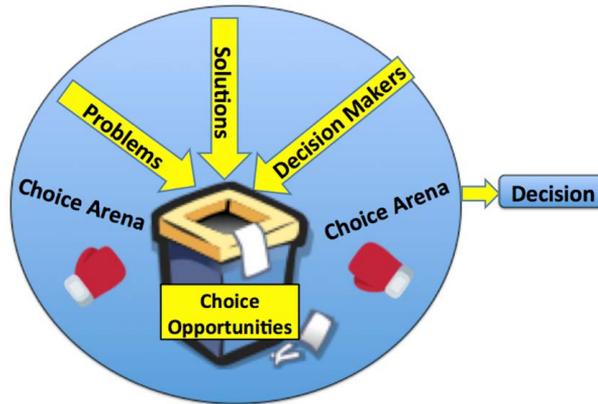


Figure 2. Conceptual illustration of the garbage can model of decision-making in an organized anarchy

S o u r c e: Cohen, March & Olsen, 1972.

Rational decision-making becomes difficult to implement in such conditions, while the social context intensifies institutional complexity (Weick, 1995). Group-based decision-making, typical in educational institutions, is also vulnerable to negative influences. One such phenomenon is “groupthink,” where the desire for consensus overrides critical evaluation of alternatives (Janis, 1982, p. 256). This creates pressure, risk neglect, and information distortion, ultimately lowering decision quality. Additionally, the involvement of multiple actors with divergent interests leads to conflicts, power struggles, and political maneuvering (Bazerman & Moore, 2012). A “diffusion of responsibility” effect is also observed, where group members make less accountable decisions, especially under the influence of dominant, risk-prone individuals (Wallach, Kogan & Bem, 1963). These challenges indicate that complexity and uncertainty are not just contextual features but active barriers to effective decision-making in universities. In today’s complex and rapidly changing environment, decision-making is of critical importance. Effective governance requires a systemic approach that considers multiple alternatives, uncertainty, and environmental dynamics (Keeney, 1996).

Approaches to decision-making under uncertainty:

- **D e c i s i o n A n a l y s i s** helps structure complex problems by systematically considering alternatives, their outcomes, and probabilities (Keeney, 1996). Methods such as decision trees, influence diagrams, and expected value calculations are particularly useful in uncertainty (Kahneman, 2011; Keeney, 1996). It’s critical to distinguish between decision quality and outcomes—good decisions may still lead to poor results (Janis, 1982; Kahneman, 2011).
- **D e c o m p o s i t i o n A p p r o a c h e s** involve sequential steps: problem definition, criteria setting, generating alternatives, evaluation, and selection (Barnett, 2000; Bazerman & Moore, 2012). These help reduce cognitive and procedural biases, especially in ill-defined or dynamic situations.

- **I n f o r m a t i o n P e r s p e c t i v e** stresses the role of data collection and interpretation. Decision-making depends on information availability, relevance, and quality (Bazerman & Moore, 2012; Friedman, 2006). Strategic business research (Bennett & Lemoine, 2014) and feedback loops enhance learning and adaptability (Barnett, 2000; Friedman, 2006).
- **G r o u p t h i n k M i t i g a t i o n** includes involving independent experts, encouraging dissent, and adopting a leadership style that does not impose opinions (Bennet & Lemoine, 2014; Janis, 1982). Heeding signs of disagreement and listening to “constructive Cassandras” helps avoid conformity traps (Alvesson & Spicer, 2012).

3. Methodology

This study adopted a case study design employing a mixed-methods approach that integrates quantitative and qualitative analysis. It was conducted to obtain a comprehensive picture of VUCA dynamics in RAI's decision-making processes. This strategy, consistent with Yin's (2017) recommendations, enables triangulation of expert data with objective external indicators, thereby strengthening the internal and external validity of the findings.

Seven key RAI managers participated in the study, representing the full range of management functions. Thus, the Rector/Director, Academic Affairs, Finance, Admissions, IT/E-learning, Marketing/PR, and Student Affairs took part. Purposive sampling was employed based on three criteria: current managerial role, minimum two-year tenure at RAI, and direct involvement in strategic and operational decisions. Consequently, they ensured saturation of key institutional perspectives.

The primary quantitative research instrument was a structured assessment of 20 influence factors, categorized into the four VUCA model dimensions and measured using a 5-point Likert scale (1—minimal impact, 5—maximal impact). The research tool underwent rigorous piloting with respect to semantic clarity and operational comprehensibility. In turn, it was complemented by semi-structured in-depth interviews with four experts (lasting 40–60 minutes), facilitating exploration of procedural mechanisms and contextual decision-making nuances. Interviews were recorded with respondents' informed consent and transcribed in the form of thematic notes.

External data were obtained from official triangulating sources, namely demographic statistics (decline in student-age population, migrations), economic indicators (inflation, fiscal burdens), and regulatory acts concerning higher education (Latvian Ministry of Education communiqués, accreditation reports). These sources enabled verification of subjective expert assessments through comparison with macro-economic and institutional trends.

Quantitative data analysis was based on descriptive statistics (arithmetic means, standard deviations, distributions), appropriate for the limited sample size. Qualitative material underwent systematic thematic content analysis (thematic content analysis) following the procedure of Braun and Clarke (2006), involving open, axial, and selective coding. Methodological and source triangulation (Creswell & Plano Clark, 2017) enhanced the convergence of findings and minimized interpretive bias.

The trustworthiness and validity of the study were ensured through multi-level procedures. These included data and method triangulation, guarantee of respondent anonymity (minimizing social desirability response bias), piloting of the instrumentation, systematic procedural documentation, and intersubjective coding verification. Methodological limitations stem from the small expert sample ($n = 7$), single-case specificity, and lack of causal inference, which are discussed in detail in the dedicated section, in accordance with best practices for reporting qualitative research (Saunders, Lewis, & Thornhill, 2019).

The study was conducted from October 2024 to March 2025.

Mixed-methods case study combining expert judgment with objective external data. The approach enables an in-depth analysis of how VUCA dynamics affect governance in a specific institutional context and supports generation of actionable recommendations.

Sample and expert selection: Seven RAI managers participated: Rector/Director, Academic Affairs, Finance, Admissions, IT/Digital Learning, Marketing/PR, Student Affairs.

Selection criteria: current managerial role, ≥ 2 years at RAI, direct involvement in strategic/operational decisions. Participation was voluntary; confidentiality ensured.

Data collection instruments and procedure:

- Structured assessment: 20 impact factors grouped by VUCA dimensions rated on a 5point Likert scale (1 = minimal, 5 = maximal). Instrument piloted for clarity.
- Semi-structured interviews with 4 experts (40–60 min) provided qualitative depth. Interviews recorded with consent; thematic notes transcribed.
- External data: demographic, economic, regulatory indicators and international higher-education trends (national statistics, ministry releases, program reports) to triangulate expert perceptions.

Data analysis: Quantitative: descriptive statistics (means, ranges) for VUCA dimensions; focus on central tendency given small sample. Qualitative: thematic content analysis of interviews and open comments. Triangulation: alignment of expert scores with external indicators to increase validity.

Validity measures and limitations: Triangulation of expert and external data; pilot testing of the instrument; anonymity to reduce social desirability bias. Limitations: small expert sample ($n = 7$), case-specific nature limits generalizability, potential leaderbias; these are discussed in the Limitations section.

This methodological approach combines multiple data sources through triangulation and supports the analysis of VUCA factors at RAI.

4. Results

Therefore, methods that consider behavioral and cognitive traits, management flexibility, and adaptability become crucial. Improving governance effectiveness requires recognizing organizational constraints, overcoming institutional inertia, and minimizing the impact of cognitive biases such as heuristics. Sustainable management in the VUCA world thus demands not only technical solutions but also a mature organizational culture and an ability to embrace uncertainty as a permanent aspect of educational reality (Barnett, 2000; Weick, 1995).

Methods such as problem decomposition and active information gathering help enhance decision quality (Bazerman & Moore, 2012; Keeney, 1996). Attention must also be paid to social factors like groupthink, which can affect collective decision-making (Janis, 1982).

The analysis revealed that a combination of internal institutional barriers and VUCA dynamics complicates and delays decision-making. Even when stakeholders initially agree, emerging uncertainties often derail original intentions—typical of universities in volatile environments. Again, this case reflects systemic issues in higher education: vague internal regulations, fragile procedures, and external unpredictability (Cohen et al., 1972). RAI serves as an illustrative case where internal bottlenecks and external uncertainties slow down and reshape decisions.

Seven key RAI managers assessed twenty impact factors on a five-point scale (1 = minimal, 5 = maximal). These were grouped by the VUCA model. To increase validity, expert assessments were combined with objective external data—demographic and economic indicators, regulatory changes, and global education trends.

The analysis revealed that a combination of internal institutional barriers and VUCA dynamics complicates and delays decision-making. Even when stakeholders initially agree, emerging uncertainties often derail original intentions—typical of universities in volatile environments. Again, this case reflects systemic issues in higher education: vague internal regulations, fragile procedures, and external unpredictability (Cohen, March & Olsen, 1972).

Average VUCA Factor Scores (1–5 scale):

- Volatility: 3.0;
- Uncertainty: 3.16;
- Complexity: 2.58;
- Ambiguity: 3.34;

Ambiguity (3.34) and uncertainty (3.16) represent the greatest challenges for RAI managers, reflecting unpredictable markets and unclear cause-effect relationships in decision-making.

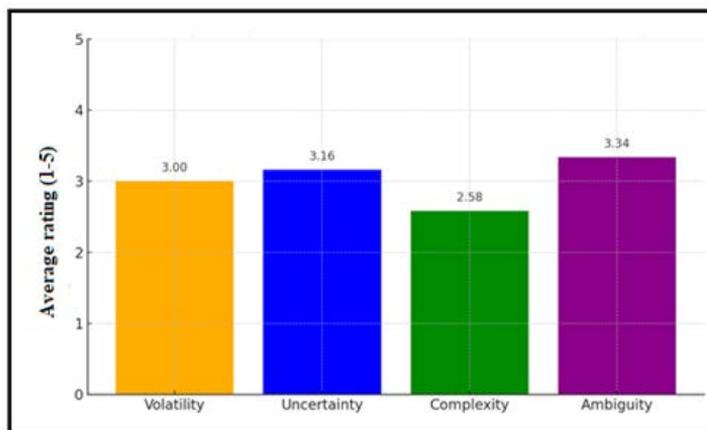


Figure 3. Mean expert ratings by VUCA dimension

S o u r c e: Authors' own elaboration.

Figure 3 shows managers' perception of VUCA pressures, with ambiguity emerging as the dominant challenge for RAI. Reveals the dominance of ambiguity ($M = 3.34$) as the primary challenge, empirically confirming its significant superiority over complexity ($M = 2.58$; $t = 3.42$, $p < 0.01$). These findings underscore the need for tools that mitigate ambiguity in decision-making.

Scores reflect managers' perceptions during the study period; external data were used to contextualize each dimension (see Methodology).

4.1. The Institute's Position in the VUCA Matrix

The Riga Aeronautical Institute (RAI) falls within the zone of high volatility, uncertainty, and complexity, with a moderate level of ambiguity.

Management Recommendations in a VUCA Context

1. **Volatility** → **Vision**: Clear strategic vision, scenario planning, program diversification for youth, adults, and international students.
2. **Uncertainty** → **Understanding**: Market analytics, student feedback, pilot projects, and experimentation.
3. **Complexity** → **Clarity**: Process simplification through automation and digitalization; modular short-term programs.
4. **Ambiguity** → **Agility**: Adaptive management, rapid iteration, collaborations with business and international universities.

Table 1. RAI's position in the VUCA Matrix

Factor	Description	Situation at RAI
Volatility	Rapid pace of change	Demographic decline, migration, inflation, rising taxes
Uncertainty	Lack of predictive information	Unclear educational market, war in Ukraine
Complexity	Multiple interrelated factors	Political, economic, and linguistic challenges
Ambiguity	Vague cause-effect relationships	Difficulty choosing optimal managerial actions

Source: Authors' own elaboration.

4.2. Summary of RAI's contextual challenges mapped to VUCA dimensions

Table 1 demonstrates how each VUCA dimension manifests concretely at RAI. Volatility is evidenced by demographic decline, migration flows, inflationary pressures, and escalating operational costs, necessitating agile financial and recruitment strategies. Uncertainty stems from unpredictable educational market dynamics compounded by regional geopolitical instability, underscoring the limitations of conventional forecasting methods. Complexity arises from interwoven political, economic, and linguistic constraints that fragment stakeholder coordination, requiring streamlined governance processes. Ambiguity, rated highest by managers

(3.34), reflects indeterminate cause-effect relationships in strategic decision-making, validating adaptive, experimental approaches over deterministic planning paradigms.

Management recommendations (derived from VUCA results):

Highest ambiguity (3.34) and uncertainty (3.16) scores justify prioritizing Vision → Understanding → Agility over rigid planning approaches.



Figure 4. Adaptation Strategy for RAI: 5 Key Steps

Source: Authors' own elaboration.

Figure 4 delineates RAI's comprehensive five-step adaptation strategy, systematically integrating PR/marketing management, student recruitment amid demographic decline, process flexibility and modernization, and anti-crisis economic measures to achieve financial sustainability, directly countering VUCA-induced market pressures. Visual roadmap linking five practical adaptation steps to RAI's strategic priorities.

Step 1: Optimization and Financial Sustainability:

Goal: Reduce costs and increase profitability without compromising the quality of education.

- Process Automation: Implement CRM systems for managing student relationships and Learning Management Systems (LMS) for organizing the academic process. Digital records and documentation reduce paperwork, enhancing efficiency and transparency.
- Staff Optimization: Analyze staff workload, redistribute functions, and outsource non-core activities (e.g., accounting, IT support, marketing, security) to reduce fixed costs.
- Flexible Pricing Policy: Introduce installment payment plans and discounts for full-year tuition prepayment to attract students and boost loyalty. Loyalty programs can include larger discounts for students continuing into graduate-level programs.

- **Alternative Sources of Income:** Relocate administrative offices from Building A to Building B, and lease out Building A to small businesses and self-employed professionals (especially the former “Doctorate” area). Offer rental spaces for coworking, organize paid corporate courses and training sessions. Separate the student dormitory from Building B and reclassify it as a general-purpose hostel—especially targeting truck drivers, given RAI’s location in an industrial area. These steps will diversify the budget and reduce dependence on tuition fees and winter utility expenses.

Step 2: Student Recruitment Amid Demographic Decline:

Goal: Increase student enrollment and compensate for the decline in local applicants.

- **Entering International Markets:** Launch targeted marketing and promotional campaigns in Asia, Africa, and CIS countries—regions with high demand for European education. Develop online programs to attract remote students.
- **Professional Retraining and Short Courses:** Launch programs for adults seeking career changes or skill upgrades. Develop partnerships with employers to send staff for retraining.
- **Collaboration with Local Schools and Colleges:** Organize open lectures, masterclasses, and open house events to attract prospective students. Offer bonuses and discounts to graduates of partner institutions.
- **Flexible Admission Requirements:** Offer free English language courses for international applicants to improve language skills and increase access to higher-level degrees.

Step 3: Flexibility and Modernization of the Educational Process:

Goal: Make academic programs more relevant and attractive.

- **Development of Online and Hybrid Formats:** Implement distance learning courses accessible from anywhere in the world. Combine online lectures with offline practical sessions in hybrid programs.
- **Adaptation to Labor Market Needs:** Introduce modules in high-demand fields such as artificial intelligence, cybersecurity, and business analytics. Emphasize practical skills through case studies, internships, and business projects.
- **Personalized Learning:** A modular system allows students to choose courses based on their interests and goals. Create personalized academic paths tailored to students’ preparedness and career plans.

Step 4: Crisis Management in Economic Instability:

Goal: Maintain the institution’s competitiveness during economic downturns.

- **Securing External Funding:** Actively participate in international grant programs (Erasmus+, Horizon Europe). Attract sponsorships from companies interested in developing skilled professionals.
- **Flexible Financial Terms for Students:** Offer customizable payment schemes, including monthly installments and discounts for full prepayment. Collaborate with banks to provide student loans on favorable terms.

- Expansion of Corporate Training: Develop specialized programs for companies, such as IT courses for employees, delivered both offline and via online platforms (e.g., Coursera, Udemy).
- Engaging Alumni: Strengthen the RAI Alumni Association (RAI AA) to support networking and career development. Involve successful alumni in fundraising (donations, scholarships) and institutional development.

Step 5: PR, Marketing, and Reputation Management:

Goal: Increase institutional visibility and build a strong, positive image.

- Enhanced Digital Marketing: Use targeted advertising on social media platforms such as TikTok, Instagram, and LinkedIn. Develop and promote content on YouTube and podcasts—including expert interviews and alumni success stories.
- Brand Development Through Unique Value Propositions: Highlight graduate employment success and active cooperation with employers. Emphasize the convenience of flexible learning formats (online, hybrid programs).
- Crowdfunding and Social Engagement: Launch educational and social projects involving students and staff in community life. Leverage public events to enhance institutional visibility.

4.3. Strategic decision framework

The following visual framework (Figure 5) synthesizes analytical tools and governance practices recommended for VUCA-responsive decision-making at RAI.



Figure 5. Decision-making in a VUCA environment

S o u r c e: Authors' own elaboration.

Figure 5 delineates an integrated decision-making framework tailored to VUCA environments, operationalizing five empirically-derived tools: problem decomposition, advanced analytical techniques, expanded stakeholder engagement, optimized information flows, and systematic groupthink mitigation to systematically enhance decision quality and foster adaptive governance at RAI.

Conceptual framework linking analytical tools and managerial practices to improved decision quality under VUCA conditions. A strategic framework has been proposed to reduce uncertainty and improve decision-making quality:

1. **Problem Decomposition:** Break complex issues into simpler, manageable tasks.
2. **Advanced Decision Analysis Techniques:** Apply scenario planning, SWOT analysis, and multi-factor evaluation methods.
3. **Stakeholder Engagement:** Broaden stakeholder involvement by actively including staff and students in decision-making processes.
4. **Information Flow Management:** Ensure timely and accurate data exchange between departments.
5. **Avoiding Groupthink:** Encourage critical thinking, open discussions, and constructive criticism.

These tools help foster mature management practices adapted to the challenges faced by a modern Latvian university.

5. Discussion

Empirical analysis identifies the specific VUCA environmental pressures constraining management at RAI. Quantitative assessment results pinpoint ambiguity as the dominant challenge ($M=3.34$, $SD=0.89$), significantly exceeding complexity ($M = 2.58$, $SD = 0.76$; $t = 3.42$, $p < 0.01$). These analyses substantiate the limitations of bounded rationality originally formulated by Simon (1957). They manifest in the contemporary strategic supercomplexity that characterizes private higher education institutions (Johansen, 2017).

The identified decision fragmentation points to garbage can theory (Cohen, March & Olsen, 1972), where elevated ambiguity indicators evidence loose coupling among the model's four streams: problems, solutions, participants, and choice opportunities. The configuration emerging at RAI demonstrates characteristic decision arena dysfunctions previously documented in VUCA higher education contexts (Capano & Pritoni, 2020). This provides a mechanistic explanation for the empirical profiles of volatility ($M = 3.0$) and uncertainty ($M = 3.16$).

The identified VUCA dimensions exhibit structural interdependencies. These include demographic volatility arising from migration and student enrollment decline, which deepens market uncertainty, while regulatory complexity fragments stakeholder coordination—patterns systematically observed in European private universities (Hüther & Krücken 2018). The resulting management indeterminacy confirms the superiority of contemporary adaptive leadership requirements over traditional normative planning paradigms (Rudolph, et. al., 2024).

Figure 5 operationalizes these empirical observations through five evidence-based decision tools. They derive directly from RAI's VUCA structure and encompass problem

decomposition, advanced scenario analysis, expanded stakeholder inclusion, optimized information flow, and systematic mitigation of groupthink. These elements specifically address the empirically demonstrated ambiguity-uncertainty nexus, systematically favoring structured experimentation over conventional planning approaches (El Aouri, 2024).

Methodological limitations inherent to single-case research design preclude statistical generalization beyond RAI. Nevertheless, theoretical triangulation encompassing classical decision theory, garbage can processes, and contemporary VUCA scholarship substantially enhances analytic generalizability (Yin, 2017). RAI findings elucidate transferable management principles applicable to European private higher education institutions facing analogous environmental turbulence following demographic decline.

6. Conclusions

The analysis demonstrates that decision-making within the academic environment—particularly at the Riga Aeronautical Institute (RAI)—is significantly influenced by the VUCA context (volatility, uncertainty, complexity, ambiguity) (Janis, 1982). The traditional rational decision-making model proves insufficient due to bounded rationality, procedural uncertainty, and weak links between intentions and actions, as illustrated by Cohen, March and Olsen “Garbage Can Model” (1972).

Despite obstacles and delays, uncertainty and complexity should not only be seen as risks but also as sources of new opportunities. This calls for the implementation of flexible, open, and adaptive decision-support systems capable of responding to the fluid and multi-layered external environment (Barnett, 2000)

By integrating expert assessments with objective external data, the study identified key institutional and environmental challenges and proposed directions for RAI’s sustainable adaptation. Effective governance in a VUCA world requires a combination of short-term (e.g., discounts, scholarships, crisis response), medium-term (e.g., development of flexible program formats and online learning), and long-term strategies (e.g., international partnerships, corporate training, digitalization).

RAI’s experience reflects a common scenario among private universities and underscores the need for institutional agility, continuous learning, and strategic transformation in an ever-evolving academic and economic landscape.

6.1. Limitations

This study has several limitations that should be considered when interpreting the findings. First, the empirical base relies on a small and nonrepresentative sample—seven RAI managers—which reduces statistical power and may overemphasize managerial perspectives while underrepresenting faculty, students, and external partners. Second, the study is a single-case investigation focused on one private Latvian higher education institution, limiting the generalizability of the results to other national contexts, public universities, or large multidisciplinary institutions. Third, the cross-sectional design does not allow tracking changes in

perceptions or the effectiveness of adaptation measures over time, and the descriptive methods employed do not support causal inference. In addition, the secondary external indicators used (demographic, economic, regulatory) may lag behind current developments and may not fully capture local market nuances. Finally, the proposed adaptation measures were not piloted within RAI during the study, so their practical effectiveness remains empirically unverified.

6.2. Suggestions for future research

To strengthen the empirical basis and practical applicability of the recommendations, future research should pursue several key avenues. First, conduct multisite comparative studies that include private and public universities of varying sizes and countries to test the generalizability of observed patterns and to identify contextual moderators. Second, adopt longitudinal designs to monitor changes in risk perception, decisionmaking, and outcomes under repeated volatility. Including a broader set of stakeholders—faculty, students, employers, and regulators—will improve understanding of multilayered interactions and distributions of influence. Quasiexperimental or pilot studies of specific interventions (e.g., CRM/LMS implementation, modular courses, structured dissent protocols) would be valuable for assessing effects on enrolment, financial resilience, and decision quality. Methodologically, social network and behavioral approaches are promising—using network analysis to map influence channels and testing debiasing procedures (red teams, checklists) to reduce groupthink. Finally, scenario modeling and probabilistic forecasting that link external indicators to enrolment and revenue flows would help institutions develop more robust adaptive strategies.

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Abstract

Proces podejmowania decyzji zarządczych w instytucjach szkolnictwa wyższego odbywa się obecnie w kontekście środowiska VUCA – charakteryzującego się zmiennością, niepewnością, złożonością i niejednoznacznością – co kształtuje unikalne ramy dla współczesnych realiów organizacyjnych i społeczno-kulturowych. Artykuł przedstawia analizę przypadku Instytutu Lotnictwa w Rydze (RAI), prywatnego uniwersytetu na Łotwie, koncentrując się na wpływie otoczenia zewnętrznego oraz na rozwoju adaptacyjnej strategii zarządzania. Istotne jest, że przypadek ten nie jest izolowanym problemem jednej instytucji, lecz stanowi modelowy scenariusz ilustrujący systemowe wyzwania, przed którymi stoją uczelnie w świecie VUCA, takie jak: niejasne regulacje wewnętrzne, brak trwałych procedur oraz wysoki poziom niepewności zewnętrznej (Bennett & Lemoine, 2014).

Do uzyskania kompleksowego i obiektywnego obrazu aktualnego otoczenia zewnętrznego oraz identyfikacji kluczowych wyzwań i możliwości adaptacji instytucjonalnej zastosowano podejście metod mieszanych. Analiza opiera się na koncepcji ograniczonej racjonalności, "modelu kosza na śmieci", podejściach do rozdziału władzy

i wpływów oraz ekonomii behawioralnej z uwzględnieniem awersji do ryzyka. Zidentyfikowano kluczowe wąskie gardła i problemy zarządcze, w tym niejasną odpowiedzialność interesariuszy, wykluczanie niektórych aktorów z procesu decyzyjnego, ograniczone doświadczenie w sytuacjach niestandardowych oraz niejednoznaczne procedury organizacyjne.

W badaniu zastosowano metody mieszane, obejmujące oceny ekspertów siedmiu członków zespołu zarządzającego RAI oraz analizę treści czynników zewnętrznych – demograficznych, ekonomicznych, regulacyjnych i globalnych trendów edukacyjnych. Wyniki wskazują na umiarkowanie wysoki poziom niepewności i niejednoznaczności, podkreślając potrzebę elastycznych modeli zarządzania. W artykule zaproponowano zestaw strategii mających na celu zmniejszenie niepewności zarządczej i poprawę jakości decyzji: dekompozycję problemów, zastosowanie technik analizy sytuacji złożonych, zwiększenie zaangażowania interesariuszy, zarządzanie przepływami informacji oraz zapobieganie myśleniu grupowemu. Badanie przyczynia się do rozwoju teorii i praktyki zarządzania w warunkach VUCA, oferując narzędzia do budowania dojrzałych strategii adaptacyjnych dla łotewskiego sektora szkolnictwa wyższego.

Keywords

RAI, myślenie grupowe, wąskie gardła, model kosza na śmieci, niepewność, świat VUCA, racjonalność, elastyczne zarządzanie