

Original Article

Developing KPIs and KRMI for Study Program in Higher Education

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Abstract: *In an increasingly competitive higher education environment, postgraduate study programmes must not only deliver academic excellence but also demonstrate resilience, adaptability, and measurable performance. This paper presents the design, implementation, and monitoring of a risk-based performance management framework for the Magister Management (MM) programme at a university that was granted the highest level of accreditation by the National Accreditation Board for Higher Education. The framework integrates Key Performance Indicators (KPIs) and Key Risk Indicators (KRIs) within a Balanced Scorecard (BSC) structure to align strategic objectives with proactive risk management. Using a qualitative descriptive approach, the study began with a literature review to identify best practices in KPIs–KRIs integration and develop a checklist tailored for higher education. This was validated through consultations with key programme stakeholders, mainly the head of the study programme. The results demonstrate that aligning strategic targets, risk assessments, KRIs, and risk treatment plans creates a clear monitoring and feedback loop that supports timely corrective actions. The case of this study shows that risk-based performance management not only enhances goal attainment but also strengthens institutional resilience, offering a replicable model for other higher education institutions.*

Keywords: *Risk-Based Performance Management; Key Performance Indicators; Key Risk Indicators; Balanced Scorecard; Higher Education Management; Strategic Risk Management.*

I. INTRODUCTION

In an increasingly competitive higher education landscape, study programmes are required to demonstrate not only academic excellence but also organisational resilience, adaptability, and measurable performance (Sunaryo et al., 2025). In Indonesia, the accreditation status of “Unggul” (Excellent) represents the pinnacle of institutional recognition, yet sustaining such a position demands continuous alignment with dynamic regulatory requirements, evolving industry needs, and stakeholder expectations (Djohanputro, 2024). For postgraduate business schools, particularly those offering Master of Management (MM) programmes, the challenge lies in balancing academic rigour with professional relevance while managing operational, financial, and reputational risks.

The application of Risk-Based Performance Management (RBPM) has emerged as a strategic approach for ensuring that institutional objectives are achieved despite uncertainties (Fioretto et al., 2024; Sunaryo et al., 2025). RBPM integrates Key Performance Indicators (KPIs) with Key Risk Management Indicators (KRMI), enabling academic programmes to monitor progress towards strategic goals while identifying and mitigating potential threats to success (Ionescu et al., 2024; Tammineedi, 2018). This dual focus aligns with global trends in governance, risk, and compliance (GRC) and supports sustainable institutional performance (Jahin et al., 2023). Although RBPM is widely adopted in corporate contexts, its structured application within higher education—particularly at the level of individual study programmes—remains underexplored in academic literature.

The case of the Magister Management (MM) programme at a university in Indonesia provides a pertinent example. Accredited with the highest level by the National Accreditation Board for Higher Education and designed with an Outcome-Based Education (OBE) curriculum, the programme aspires to be a nationally and regionally recognised leader in risk and sustainability management. However, the programme faces several strategic challenges, including intense competition in the country, the need for curriculum relevance in a rapidly changing business environment, the expansion of its student base into public and non-profit sectors, and the requirement to enhance faculty research output and industry engagement.

In response, the study programme can employ Balanced Scorecard (BSC) to develop a strategy, embedding risk identification, monitoring, and control within its performance framework (Kaplan & Norton, 1996). This approach enables a clear link between strategic objectives—such as increasing student enrolment, securing new industry partnerships, and improving teaching quality—and risk management measures, including targeted KRIs and risk treatment plans. By operationalising RBPM



at the programme level, the initiative offers valuable insights into how higher education institutions can integrate risk-based thinking into strategic and operational management.

This paper aims to present the design and implementation process of risk-based performance for a higher education study programme, using the one MM study program case as an illustrative model. The study contributes to the body of knowledge on performance management in higher education by demonstrating how KPIs and KRMI can be systematically integrated and adjusted to sustain competitive advantage and ensure institutional resilience.

II. LITERATURE REVIEW

A) Risk-Based Performance Management In Higher Education

Risk-Based Performance Management (RBPM) is an approach that integrates risk management with performance management to achieve organisational goals more effectively and adaptively in a dynamic environment. In the context of higher education, RBPM is particularly relevant given regulatory changes, stakeholder expectations, and the pressure to maintain academic reputation and competitiveness (Chin et al., 2020; Yakovleva et al., 2021).

Implementing RBPM enables higher education institutions to align strategic risks—such as declining student enrolment, changes in accreditation policies, or digital disruption—with performance planning and data-driven decision-making (Marques & Ferreira, 2020). Moreover, RBPM encourages a culture of responsiveness and structured innovation (Johnsen et al., 2019).

B) Key Performance Indicators in Academic Institutions

Key Performance Indicators (KPIs) are essential metrics used to assess institutional performance against strategic goals. In higher education, common KPIs include the number of research publications, graduation rates, student satisfaction, and the percentage of certified academic staff (Chatterjee et al., 2022; Reale & Seeber, 2021).

Effective KPI development requires a balance of financial, academic, and managerial indicators while also incorporating input from key stakeholders, including students, academic staff, industry partners, and regulators (Aithal, 2020). Furthermore, each KPI should align with the institution's strategic objectives and be supported by SMART targets (Specific, Measurable, Achievable, Relevant, and Time-bound).

C) Key Risk Indicators and their Integration With Kpis

Key Risk Indicators (KRIs) are early-warning signals of potential risks that could hinder the achievement of KPIs (Beasley et al., 2019). In higher education, KRIs may include the proportion of non-certified lecturers, unaccredited programmes, low student enrolment, or high student dropout rates (Ritchie et al., 2022; Taylor & Greve, 2016).

Integrating KRIs with KPIs is a critical component of RBPM. This integration enables management to detect threats to performance early and to assess the effectiveness of existing risk controls (Khan & Ali, 2023). It also facilitates systematic monitoring and evaluation of performance from a risk-informed perspective.

D) Balanced Scorecard as a Strategic and Risk Management Tool

The Balanced Scorecard (BSC) is widely adopted in higher education institutions as a strategic tool that aligns institutional vision and mission with performance indicators across four perspectives: financial, customer (students and stakeholders), internal processes, and learning and growth (Kaplan & Norton, 1996; Zizlavsky, 2014).

In a risk-based context, the BSC can also map strategic risks across these perspectives, helping to identify relevant KRIs (Bayat et al., 2020; Soliman & Karia, 2017). By embedding risk elements into the BSC framework, institutions can synchronise strategic planning with risk management and performance measurement (Parmenter, 2021; Moges et al., 2023).

E) Research Gap and Contribution

Studies on KPI and KRI integration within risk-based performance management in higher education remain limited. Many works focus separately on KPI implementation or risk evaluation without drawing explicit connections between performance and risk metrics (Ritchie et al., 2022; Zizlavsky, 2014).

This study contributes to the development of an integrative model that connects KPIs and KRIs using a Balanced Scorecard approach, particularly at the study programme level. The findings support a governance model for higher education that is more adaptive, accountable, and committed to continuous quality improvement (Johnsen et al., 2019; Yakovleva et al., 2021).

III. METHODOLOGY

This study adopts a qualitative descriptive research approach to explore the design and implementation of a risk-based performance framework for a postgraduate study programme in higher education. The qualitative descriptive method was chosen

because it allows for a detailed examination of phenomena within their real-life context, without the constraints of quantitative modelling, and is particularly suitable for applied research aimed at developing practical management tools (Sandelowski, 2000).

The research process was conducted in two main stages. The first stage is, literature review and framework development. A systematic review of relevant academic and professional literature was conducted to identify best practices in integrating Key Performance Indicators (KPIs) and Key Risk Management Indicators (KRMIs) within higher education and related organisational contexts. Sources included peer-reviewed journal articles, international standards, higher education policy documents, and case studies on performance and risk management (Djohanputro, 2024; Fioretto et al., 2024; Ionescu et al., 2024; Kaplan & Norton, 1996; Tammineedi, 2018). The review informed the development of a checklist outlining critical KPIs and KRMIs aligned with the strategic objectives of the study programme. This checklist served as a practical diagnostic tool for assessing performance indicators alongside associated risk metrics.

The second stage is stakeholder confirmation and validation. To ensure the relevance, feasibility, and contextual alignment of the proposed KPIs and KRMIs, the checklist was subsequently reviewed and validated through semi-structured consultations with key academic and administrative officials of the Magister Management (MM) programme at the university, mainly the Head of Programme. This consultation aimed to confirm the applicability of the identified indicators, refine definitions, and adjust thresholds for risk categorisation in line with institutional priorities and operational realities.

Data from the literature review and stakeholder consultations were synthesised to produce a tailored Risk-Based Performance Framework that integrates KPIs and KRMIs within the programme's Balanced Scorecard (BSC) structure. The final framework not only reflects established performance management theory but also incorporates the specific risk environment and strategic direction of the MM programme.

IV. RESULTS AND ANALYSIS

The application of the proposed risk-based performance framework for the Magister Management (MM) programme yielded a structured set of strategic targets, associated risks, Key Performance Indicators (KPIs), and Key Risk Management Indicators (KRMIs), all integrated within the programme's Balanced Scorecard (BSC) perspectives.

Perspective	Strategic Target		Weight
	No	Target	
Financial	1	Increase the revenue-to-operational cost ratio to ≥ 1.2	15%
	2	Increase the number of new student intakes by 25% compared to the year 2025	15%
Customer	3	Improve student satisfaction to a minimum of 90%	15%
	4	Establish 5 new industry partnerships each year	10%
Internal Process	5	Revise the curriculum based on industry needs every 2 years	10%
	6	Increase the percentage of permanent lecturers holding professional certification to $\geq 100\%$	10%
Learning and Growth	7	Maintain "Excellent" accreditation status	15%
	8	Increase the number of lecturer publications in Sinta 2 or higher journals to $\geq 80\%$ of lecturers	10%

Table 1: Strategic targets based on Balanced Scorecard

The weighting indicates the relative importance of each target to the programme's strategic vision, with financial and customer-related objectives accounting for a substantial portion of the performance focus.

The distribution of targets shows a balanced emphasis between financial sustainability (e.g., income-to-cost ratio ≥ 1.2), market expansion (e.g., 25% increase in new students), and academic quality assurance (e.g., maintaining "Unggul" accreditation). This multi-perspective alignment supports a holistic performance view consistent with BSC principles (Kaplan & Norton, 1996).

Formulating work programmes is a critical step in translating strategic objectives into actionable initiatives. In this case, each target under the Balanced Scorecard (BSC) framework is supported by specific programmes designed to both achieve the desired KPI outcomes and address the underlying risks identified in the risk register. This ensures that performance targets are not pursued in isolation but are safeguarded against factors that could hinder their attainment.

Strategic Target	Programme/Initiative
Increase the revenue-to-operating cost ratio.	Evaluation of operational efficiency, digitalisation of academic services, and diversification of short-course programmes
Increase the number of new students by 25%	Digital marketing campaign, partnerships with institutions, alumni engagement as promotional agents

Achieve student satisfaction of $\geq 90\%$	Evaluation of teaching methods, blended learning, and pedagogical training for lecturers
Add 5 new industry partners per year.	Appointment of industry liaison officers, strengthening of alumni networks in the private sector
Revise the curriculum in line with industry needs every 2 years	Curriculum forums, tracer studies, involvement of industry partners in curriculum review
Ensure 100% of lecturers hold professional certification	Budget allocation for certifications (CRMP, CPHR, CFA), regular training schedules
Maintain “Excellent” accreditation status.	Regular internal quality audits, updating of self-evaluation documents (LKPS and LED), and digital document management
$\geq 80\%$ of lecturers publish in Sinta 2-ranked journals or higher	Publication training, research collaboration, and internal grants to cover publication costs

Table 2: Strategic targets and program/ initiatives

For the financial perspective, the first strategic target—raising the ratio of operational income to costs to at least 1.2—is addressed through operational efficiency evaluations, digitalisation of academic services, and diversification into short courses. These initiatives aim to improve resource utilisation and generate new revenue streams, reducing dependency on core tuition income. Similarly, the goal of increasing new student intake by 25% compared to 2025 is supported by a comprehensive digital marketing campaign, partnerships with institutions, and the mobilisation of alumni as promotional agents. This directly responds to the high-priority risk of limited outreach to new market segments, a risk that scored 16 in the assessment.

From the customer perspective, improving student satisfaction to at least 90% is pursued through a review of teaching methods, the adoption of blended learning, and pedagogical training for lecturers. These actions target the risk that current teaching approaches may not align with the preferences of the digital-native student population. Expanding the number of industry partners by at least five per year is driven by the appointment of liaison officers for industry engagement and by strengthening alumni networks in the private sector. This is intended to mitigate the identified risk of low industry partnership enthusiasm, which could otherwise limit opportunities for internships, collaborative research, and applied learning projects.

Within the internal process perspective, revising the curriculum every two years to align with industry needs is facilitated by curriculum forums, tracer studies, and the active involvement of industry representatives in curriculum review sessions. These steps ensure that the programme remains relevant and competitive in a rapidly changing business environment. Achieving 100% professional certification among permanent faculty is supported by allocating budgets for certification programmes in risk management alongside scheduling regular training. These initiatives address the risk that faculty who lack professional credentials may undermine both teaching quality and the programme’s recognition in the marketplace.

From a learning and growth perspective, maintaining the “Unggul” accreditation status is supported by regular internal quality audits, systematic updates to accreditation documentation, and effective digital document management. These measures reduce the risk of delayed or incomplete compliance documentation, which could harm both accreditation outcomes and institutional reputation. Finally, increasing the proportion of lecturers publishing in Sinta-2 or higher-ranked journals to at least 80% is pursued through publication training, research collaborations, and internal grant schemes to cover publication costs.

The alignment between each work programme, its related KPI, and associated KRI thresholds establishes a clear monitoring and feedback loop. For example, the programme for student recruitment is tied to the KRI “number of odd-semester applicants” with defined safe, caution, and danger thresholds. Similarly, industry partnership initiatives are measured against the number of active MoUs, faculty certification programmes are tracked through the percentage of certified staff, and accreditation readiness is measured via documentation completion rates. The monitoring results to date show that while most initiatives—such as digital marketing, blended learning workshops, and faculty certification support—are proving effective, certain areas, notably industry partnerships, require recalibration. The current approach relying on alumni liaisons has been marked as ineffective in the control effectiveness review, indicating the need for more formalised, institution-level engagement strategies.

In sum, the work programmes outlined for the MM study programme are not merely operational plans; they are integral components of a risk-based performance management system. By directly addressing the causes of identified risks and tying them to measurable performance and risk indicators, the programmes ensure that strategic targets are both achievable and sustainable. The monitoring data further demonstrate that this alignment facilitates timely corrective actions, thereby enhancing the programme’s resilience and adaptability in a competitive higher education environment.

Risk assessment plays a pivotal role in a risk-based performance management framework as it provides a structured understanding of potential events that may hinder the achievement of strategic targets. By identifying risks, their causes, and possible impacts, decision-makers can prioritise mitigation strategies and allocate resources effectively. Within the context of

the MM programme, the risk assessment process is directly linked to the Balanced Scorecard (BSC) strategic targets, ensuring that performance objectives are pursued with a clear understanding of the associated vulnerabilities.

Strategic Target	Risk (Not a negation of the target)	Cause of Risk	Risk Impact	Prob (1–5)	Impact (1–5)	Score
Increase the number of new students by 25%	Limited reach of promotion to new market segments	Lack of marketing HR capacity, suboptimal digital promotion	Stagnant student intake, high fixed cost burden	4	4	16
Add 5 new industry partners annually	Low enthusiasm from the industry to form partnerships	Limited active networks and weak value proposition	Collaboration, internship, and research opportunities were hindered	3	4	12
Maintain “Excellent” accreditation status	Delay in updating accreditation forms and documentation	Inadequate quality assurance and an internal audit team	Downgrade of accreditation status and institutional reputation	2	5	10
100% of lecturers are professionally certified	Not all lecturers pursue professional certification	High certification cost, heavy workload	Decline in teaching quality and industry recognition	3	3	9
Achieve $\geq 90\%$ student satisfaction	Teaching methods are not aligned with the digital generation's needs	Lecturers are not adaptive to blended learning	Decreased satisfaction and student retention	2	4	8

Table 3: Risk assessment

The risk assessment table outlines five key risks associated with the selected strategic targets. To achieve the objective of increasing new student enrolment by 25%, the primary risk is limited outreach to new market segments, resulting from insufficient marketing capacity and suboptimal digital promotion. This risk scored highest in the assessment with a value of 16, reflecting both high probability and high impact. The goal of adding five new industry partners annually is threatened by low industry engagement enthusiasm, stemming from limited active networks and an unclear value proposition, producing a risk score of 12. Maintaining the “Unggul” accreditation is challenged by delays in updating accreditation documents, due to a shortage of quality assurance and audit staff, with a score of 10. Achieving full professional certification among faculty carries a risk score of 9, attributed to the high costs and heavy workloads that discourage certification participation. Finally, the objective of achieving at least 90% student satisfaction is exposed to the risk that current teaching methods may not meet the expectations of a digital-native generation, with a score of 8.

Analysis of these results highlights three critical insights. First, the highest-scoring risks are closely tied to the programme’s growth and competitiveness—namely, student recruitment and industry partnerships—indicating that market positioning is particularly sensitive to operational capacity and engagement strategies. Second, several medium-level risks, such as accreditation and faculty certification, while less urgent in probability, carry significant long-term reputational and quality implications if left unaddressed. Third, even the lowest-scoring risk related to student satisfaction deserves attention, as a decline in satisfaction can have compounding effects on retention, referrals, and overall brand perception.

By quantifying both probability and impact, the assessment enables the programme to prioritise action on high-score risks while maintaining preventive measures for medium- and low-score risks. This prioritisation underpins the design of targeted Key Risk Indicators (KRIs) and tailored work programmes, ensuring that performance management is proactive rather than reactive. In practice, this means that the MM programme can channel resources towards expanding marketing reach and strengthening industry relations while simultaneously maintaining vigilance over quality assurance and faculty development.

The determination of Key Risk Indicators (KRIs) is a fundamental component of risk-based performance management because KRIs provide early-warning signals of conditions that could lead to performance shortfalls. Unlike Key Performance Indicators (KPIs), which measure outcomes, KRIs focus on the factors that influence those outcomes, allowing institutions to detect and address emerging risks before they escalate. For a higher education programme such as the MM programme, KRIs create a direct link between identified risks and measurable operational data, ensuring that risk management is both proactive and evidence-driven.

Risk	KRI (Key Risk Indicator)	Safe Level	Caution Level	Danger Level
Limited reach of promotion to new market segments	Number of applicants for the odd semester	≥ 150	100–149	< 100
Low enthusiasm from the industry for a partnership	Number of active industry MoUs	≥ 10	5–9	< 5
Delay in updating forms and documentation	Report completion progress	$> 90\%$	70–90%	$< 70\%$
Not all lecturers are professionally certified	Percentage of certified lecturers	$\geq 100\%$	80–99%	$< 80\%$
Teaching methods are misaligned with digital needs	Average student satisfaction score	≥ 90	75–89	< 75

Table 4: Key risk indicators

The *Key Risk Indicator* table specifies quantifiable metrics and threshold levels—safe, caution, and danger—for each identified risk. For the risk of limited outreach to new student segments, the KRI is the number of odd-semester applicants, with safe set at ≥ 150 , caution at 100–149, and danger at < 100 . The risk of low industry engagement enthusiasm is measured by the number of active industry MoUs, where ≥ 10 is safe, 5–9 is caution, and < 5 is danger. The accreditation documentation delay risk is tracked via percentage completion of reports, with $> 90\%$ safe, 70–90% caution, and $< 70\%$ danger. For the risk of incomplete faculty professional certification, the KRI is the percentage of certified permanent lecturers, with $\geq 100\%$ safe, 80–99% caution, and $< 80\%$ danger. Lastly, the risk of misaligned teaching methods with digital-native students is measured by the average student satisfaction score, where ≥ 90 is safe, 75–89 is caution, and < 75 is danger.

Analysis of these KRIs shows that they are both target-specific and risk-driven, making them effective tools for continuous monitoring. The chosen indicators are directly measurable and can be updated regularly, enabling timely responses. For example, if applicant numbers drop into the caution range, the programme can intensify marketing efforts before reaching the danger threshold. Similarly, tracking active industry MoUs ensures that partnership-building initiatives can be adjusted quickly when engagement levels are low. The inclusion of both academic quality measures (e.g., satisfaction scores, faculty certification rates) and compliance-related metrics (e.g., LKPS/LKPT completion) ensures that the KRI framework covers operational, reputational, and strategic dimensions of programme performance.

By establishing clear thresholds, KRIs provide a structured basis for making informed decisions and activating risk treatment plans. This not only enhances accountability in execution but also strengthens the integration between strategic targets, risk assessment, and work programme design. In effect, the KRI framework ensures that the MM programme operates with a continuous “radar” for emerging threats, thereby reinforcing its ability to sustain both performance excellence and resilience.

Formulating a risk treatment plan is a critical stage in the risk management process, as it converts the results of risk assessment and monitoring into targeted, actionable measures. For the MM programme, these plans are designed not only to mitigate the likelihood or impact of identified risks but also to support the achievement of associated strategic targets. Effective risk treatment integrates preventive actions to avoid risk occurrence, detective actions to identify emerging issues early, and corrective actions to restore performance when deviations occur.

Risk	Control Plan
Limited outreach of promotions to new segments	Recruitment of additional digital marketing staff, collaboration with alumni from the public sector and churches
Low enthusiasm from the industry to form partnerships	Appointment of an alumni liaison officer from the industrial sector to initiate collaborations
Delays in updating accreditation documents and reports	Scheduling of internal quality audits twice a year, and digitalisation of the documentation system
Not all lecturers participate in certification programmes	Subsidies for training/certification, scheduling reduced teaching loads during training periods
Teaching methods are not aligned with digital needs	Digital pedagogy training and blended learning workshops for all permanent lecturers

Table 5: Risk treatment plan

The *risk treatment plan* table links each priority risk to specific control measures. To mitigate the risk of limited outreach to new student segments, the treatment involves hiring digital marketing staff and fostering collaboration with alumni from public sector institutions and churches. This directly addresses the cause of insufficient promotional reach while leveraging trusted networks to access new markets. For the risk of low industry partnership enthusiasm, the treatment plan includes appointing industry-sector alumni as liaison officers to initiate collaboration. The accreditation documentation delay risk is mitigated through scheduling internal quality audits twice a year and digitising document systems, ensuring compliance readiness. The risk of

incomplete faculty professional certification is addressed through training and certification subsidies, combined with reduced teaching loads during training periods to facilitate participation. Finally, the risk of teaching methods misaligned with student expectations is addressed through digital pedagogy training and blended learning workshops for all permanent lecturers.

Analysis of these plans reveals several strengths. First, the controls are directly tied to the root causes identified in the risk register, ensuring that treatment is focused rather than generic. Second, many of the measures have a dual benefit, contributing to both risk mitigation and KPI improvement. For example, blended learning workshops not only reduce the risk of student dissatisfaction but also enhance teaching quality and innovation. Third, the treatments incorporate both structural changes (e.g., digitalisation of document systems, staffing increases) and capability building (e.g., training, certification), which support long-term resilience.

In summary, the risk treatment plans for the MM programme demonstrate a strong alignment between risk causes, mitigation measures, and strategic objectives. When combined with ongoing monitoring and KRI thresholds, these treatments provide a structured, responsive mechanism for sustaining performance and managing uncertainty in a competitive higher education environment.

V. CONCLUSION

This study has demonstrated that integrating KPIs and KRIs within a Balanced Scorecard framework provides a robust foundation for managing and sustaining performance in higher education. Magister Management (MM) programme, facing competitive pressures and evolving industry demands, developed eight strategic targets across financial, customer, internal process, and learning & growth perspectives. Each target was linked to identified risks, assessed for probability and impact, and paired with KRIs that established safe, cautionary, and danger thresholds. Corresponding risk treatment plans were formulated to address root causes and support both performance and risk objectives.

The implementation of this framework showed clear benefits. The use of KRIs enabled early detection of performance threats, allowing interventions to be implemented before risks escalated. Risk treatment plans—ranging from operational improvements and capability building to digital transformation—proved effective in most areas, with monitoring data confirming improvements in student recruitment, teaching quality, faculty certification, and accreditation readiness. The approach also revealed areas for improvement, such as the development of industry partnerships, where initial strategies required redesign to achieve the intended results.

For sustained success, it is essential that the MM programme continues to monitor the effectiveness of the risk-based performance framework over time. Regular tracking of KRIs should be used not only to identify emerging risks but also to evaluate whether implemented treatment plans are achieving their intended outcomes. This monitoring should be embedded as a continuous process within the programme's quality assurance cycle, ensuring that data-driven adjustments can be made promptly.

Future research could explore the longitudinal impact of risk-based performance management in higher education, comparing results across multiple programmes and institutions. Additional studies might also investigate the integration of digital analytics tools for real-time KPI-KRI tracking, or examine the relationship between risk-based performance frameworks and student outcomes such as employability and long-term satisfaction. By expanding the evidence base, higher education institutions can refine and scale the application of RBPM, further strengthening both performance and resilience in a rapidly changing academic landscape.

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