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DEVELOPING STRATEGIC PERFORMANCE IN UNIVERSITIES IN LIGHT OF SUSTAINABLE DEVELOPMENT GOALS

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Abstract
The paper explores the evolution of strategic performance management in universities in relation to the United Nations Sustainable Development Goals (SDGs). Besides reviewing the relevant literature, the paper also empirically analyzes the role of the university sector in the implementation of global sustainability objectives through the measurement of social performance. The research relies on a descriptive-analytical methodology and investigates four major areas that include: internal processes, stakeholder satisfaction, financial aspects, and organizational learning and growth.
The survey of 40 academic leaders at King Khalid University reveals excellent performance of the internal operations (M=3.73, SD=0.66) and stakeholder satisfaction (M=3.52, SD=0.74), satisfactory performance of learning and growth (M=3.37, SD=0.66), and good performance of financial management (M=3.60, SD=0.82).
The authors of this paper offer an integrated strategic model that merges the Balanced Scorecard concept with the SDG indicators to provide a set of feasible solutions for the advancement of universities' performance in line with the global sustainability commitments. This piece of writing serves as a bridge to the gap existing between strategic performance management on the one hand, and sustainability implementation in higher education institutions on the other.
Keywords: Strategic Performance Management, Balanced Scorecard, Sustainable Development Goals, Higher Education, Performance Measurement, University Excellence

1. INTRODUCTION

Global conditions today necessitate that schools and colleges not only aim at achieving their own strategic targets but also consider the larger social consequences of what they do. UN 2030 Agenda has put forward 17 universal goals that are interconnected and eventually look into the main issues- poverty, inequality, climate change, and environmental degradation that affect the world (UN, 2015). As institutions generating knowledge and serving the community, universities are in a position to drive these goals forward.
Over the last 20 years, performance management within higher education strategically has undergone a major transformation. The performance management culture then largely revolved around financial metrics and operational efficiency. However, today, they have incorporated wider aspects such as quality, innovation, and social impact measures (Kaplan & Norton, 2008). The present level of sustainable development goals integration in the university performance system is such that it barely makes a difference, thus, leading to an urgent issue of the divisional gap between the institution-centered excellence frameworks on the one hand, and the global sustainability commitments on the other.
BSC, a model of Balanced Scorecard (BSC) concept, was thought out by Kaplan and Norton (1992), aids in designing a balanced institutional framework which can be specified with performance outcomes by four dimensions: business/financial; customer/stakeholder; internal processes; and learning and growth. Today, university BSC adoption effectiveness is the core of much academic work. The implementation of BSC in universities is found effective in attaining strategic harmony with fewer comprehensive execution obstacles by researchers, while Osei-Kuffour (2022) and Mohammed (2022) individually have mentioned that some problems regarding the full implementation of the system still exist.
The present article takes up the question: What are the ways through which university systems of strategic performance management could be made robust enough, on the one hand, to be able to drive institutional excellence further to a higher level and, on the other, to generate positive externalities in terms of sustainable development goals?

1.1 Research Objectives

1. To inspect the practice of using strategic performance management in a university and to check if it complies with SDG framework

2. To evaluate how well the BSC is put into effect in the context of the higher education sector
3. To find out the gaps existing between the institutional systems of performance and the set of sustainability objectives
4. To design a conceptual framework introducing performance indicators based on the SDG and aiming at strategic development
5. To deliver to the university leaders the suggestions they could take up through actual practice when handling performance management in line with sustainability

1.2 Research Questions

• What strategic performance management initiatives are currently being taken by universities?
• To what extent are universities successful in the implementation of BSC-oriented performance measurement?
• What obstacles prevent a good alignment between institutional performance systems and SDGs?
• In what ways would the redesign of performance indicators allow the incorporation of sustainability aspects?
• What were the institutional changes necessary to get this integration done?

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Strategic Performance Management in Higher Education

Strategic performance management (SPM) is about the close examination of how an organization's long-term vision, mission, and goals can be translated not only into numbers but also into actionable plans (Armstrong, 2015). Within the higher education sector context, SPM implies that not just the academic activities but the administrative and financial ones of a university are well-aligned with its strategic direction.

According to Al-Ghanem (2012), university performance management consists of five major parts, which are also the main functions of a university:

Teaching and Learning Quality: Ensuring education delivery is at global standards
Research Excellence: Generating and disseminating knowledge through in-depth research
Community Engagement: Using education received as a tool for community service and development
Institutional Governance: Managing the administrative and academic efficiently
Financial Sustainability: On one hand, being effective in the resource utilization and, on the other, looking for new income sources

With an SPM framework at its core, the university moves towards a more profound strategic integration and experiences real positive effects on its performance, as indicated by a large number of recent scholarly research.

Al-Hamad and Al-Omari (2018) examined 105 academic leaders at King Abdulaziz University and painted a picture of the performance situation as being average overall (M=3.52 across dimensions). The study, however, revealed noteworthy shifts in performance dimensions besides that.

SPM should not be seen only as an instrument for institutional performance measurement. Qattat (2023) believes that apart from being a means for performance measurement, strategic performance management enhances the institution's capacity of being vigilant and forecasting the overall routes that universities may take to be in line with the challenges and opportunities they anticipate, thus, emphasizing the importance of engaging strategic planning with operational performance at both institutional and individual levels.

2.2 The Balanced Scorecard Framework

The Balanced Scorecard represents a major innovation in the area of performance measurement, where, apart from the solely financial indicators, the other perspectives of stakeholders are also accounted for (Kaplan & Norton, 1992, 2008). The BSC model consists of four interrelated perspectives:

Table 1: Balanced Scorecard Dimensions and Their Higher Education Applications

Dimension	Definition	Higher Education Application	Key Indicators
Financial	Sustainable resource management and revenue generation	Budget efficiency, diversified funding sources, cost per student, research funding	Cost-benefit ratio, operational efficiency, financial sustainability
Customer/Stakeholder	Meeting needs of students, employers, and community	Student satisfaction, employment outcomes, community partnerships	Graduation rates, employer feedback, community impact

Internal Processes	Operational efficiency and quality of core functions	Teaching effectiveness, research productivity, administrative efficiency	Course quality ratings, research output, process automation
Learning & Growth	Institutional capacity development and innovation	Faculty development, technology adoption, innovation initiatives	Professional development hours, innovation projects, technological integration

Philip (2011) demonstrates that universities implementing BSC achieve several benefits:
More efficient strategy communication throughout the various layers of the institution Employees' stronger personal objectives alignment with the organizational strategy More informed decision-making on the basis of the in-depth data available More open communication and closer engagement with stakeholders, as well as accountability towards them
However, there are still problems with the concept's implementation. According to the Al-Tuwajri (2019) study, a survey of 170 academic leaders at Imam Abdul-rahman Bin Faisal University showed the BSC facets' implementation was only weak (overall M=2.89), especially in financial and learning areas, which indicated that there were significant obstacles to their effective operationalization.

2.3 Sustainable Development Goals and Higher Education

The United Nations' Sustainable Development Goals represent a single framework that not only solves the planet's problems but also brings prosperity to the world. In accordance with UNESCO (2017), the higher education institutions are the main agents in realizing the SDGs, as universities, by their teaching, research, and engagement, go all the way to support the 17 goals.
The closest connection between these SDGs and the colleges' activities is:
SDG 4: Quality Education - Making sure every child has access to education, educational equity, and lifelong learning
SDG 5: Gender Equality - Achieving equal representation of men and women in education and leadership of the institutions
SDG 8: Decent Work and Economic Growth - Equipping graduates with the necessary skills for decent jobs
SDG 12: Responsible Consumption and Production - Faciliting environmentally sustainable institutions
SDG 13: Climate Action - Helping to combat climate change by research and institutional practices
SDG 17: Partnerships for the Goals - Engaging in mutually beneficial partnerships as a means of achieving development
The biggest challenge to higher education sustainability is the so-called 'implementation gap' which stands for the difference between the institution's sustainability pledges and its everyday actions. According to recent papers, up to 90% of universities can be considered as having adopted sustainability policies while only 43% of them demonstrate complete implementation across all their institutional operations (Lozano et al., 2015).

2.4 Integration Framework: SPM and SDGs

The philosophical basis for the unification of the two topics - SPM and SDGs - relies on the alignment principle as one of the key factors:
Alignment Principle: Performance measurement systems within organizations should clearly indicate the environmental sustainability issues addressed, thus, instead of merely listing SDG commitments as a poster of aspirations, they should, in fact, be the operational realities (Griggs et al., 2013).
Holistic Assessment: No single performance management system can be considered complete if it does not take into account all financial, operational, human, and environmental aspects. This prevents the situation where institutional performance becomes at the cost of societal goals.
Stakeholder Integration: The IPM system, when employed in the SDG context, should not limit the stakeholder involvement to only a few. They might be students, professors, employers, community members, and policymakers – not only their interests could be in harmony but they could also be complementary to the institution's objectives.

3. METHODOLOGY

3.1 Research Design

This mixed methods research adopted a descriptive-analytical design. It helped the research team to quantitatively describe the current performance measurement practices and qualitatively explore the barriers and facilitators of their implementation. The case under investigation was King Khalid University, a large

comprehensive research institution with approximately 40,000 students and 2,500 faculty members located in southern Saudi Arabia.

3.2 Population and Sample

Population:

The total number of academic leaders (n=280) at King Khalid University was the target group for this research, which included:

College Deans (n=12)

Vice-Deans and Supporting Unit Heads (n=28)

Department Chairs (n=98)

Department Vice-Chairs (n=142)

Sample:

Stratified random sampling was utilized to pick 40 academic leaders (14.3% response rate) who reflected the proportion of the different leadership categories.

Table 2: Sample Demographic Characteristics

Characteristic	Frequency	Percentage
Academic Rank		
Professor	8	20.0%
Associate Professor	12	30.0%
Assistant Professor	15	37.5%
Lecturer	5	12.5%
Years in Leadership		
1-3 years	12	30.0%
4-6 years	16	40.0%
7+ years	12	30.0%
Position Type		
College-level	8	20.0%
Department-level	32	80.0%

3.3 Data Collection Instruments

Primary Instrument:

A structured 31-item questionnaire covering four dimensions and changed for higher education and SDG contexts from the validated BSC instruments:

Internal Processes (10 items): Operation efficiency evaluation, process quality, and technology integration

Stakeholder Satisfaction (6 items): Satisfaction of students and employers with educational services

Financial Management (7 items): The way resources are managed, funding diversification, and financial sustainability

Learning and Growth (8 items): Faculty development, innovation capacity, and organizational learning

Measurement Scale:

The five-point Likert scale (1=Strongly Disagree to 5=Strongly Agree) was used for the items with reversed coding where applicable.

Secondary Data:

The institution's strategic plans, annual reports, and performance data for the academic years 2018-2024 were some of the documents that were reviewed.

3.4 Instrument Validity and Reliability

Content Validity:

An expert panel (n=28) consisting of university professors from Saudi and Arab universities and educational administration experts reviewed the items, found the items relevant, and the constructs valid. Content Validity Index (CVI) = 0.89, which is significantly higher than the threshold of 0.78.

Construct Validity:

Confirmatory Factor Analysis (CFA) provided evidence for a model of four factors:

Internal Processes: loadings 0.873-0.892Stakeholder Satisfaction: loadings 0.831-0.852

Financial Management: loadings 0.683-0.833Learning & Growth: loadings 0.862-0.874

Internal Consistency:

Cronbach's Alpha coefficients (Table 3):

Table 3: Reliability Analysis (Cronbach's Alpha)

Dimension	Cronbach's α	N Items	Interpretation

Internal Processes	0.978	10	Excellent
Stakeholder Satisfaction	0.941	6	Excellent
Financial Management	0.882	7	Good
Learning & Growth	0.954	8	Excellent
Overall Instrument	**0.956**	**31**	**Excellent**

The different dimensions have all been above the 0.70 threshold of acceptable reliability, and the single overall reliability of the instrument has pointed to excellent internal consistency.

3.5 Data Analysis Procedures

Quantitative Analysis: Descriptive statistics (means, standard deviations) for each item and dimensionInferential statistics (t-tests, ANOVA) to ascertain differences demographic variables

- Correlation analysis to identify relationships between dimensions
- Gap analysis to contrast observed performance with evidence-based benchmarks
- Qualitative Analysis: Thematic analysis of open-ended responses on implementation barriers
- Document analysis of the strategic alignment between institutional plans and performance systems
- Framework analysis to identify current practices in relation to SDG indicators4.

4. RESULTS

4.1 Overall Performance Assessment

Table 4: Descriptive Statistics for Performance Dimensions

Dimension	Mean	SD	Range	Level	Rank
Internal Processes	3.73	0.66	3.68-4.02	High	1
Financial Management	3.60	0.82	3.33-4.12	High	2
Stakeholder Satisfaction	3.52	0.74	3.33-3.83	High	3
Learning & Growth	3.37	0.66	3.20-3.67	Moderate	4
Overall Mean	**3.55**	**0.62**	**3.20-4.12**	**High**	—

Results indicate generally high institutional performance in three critical dimensions, with moderate performance in organizational learning and growth. This pattern suggests strong operational and financial foundations but potential constraints in human capital development and innovation capacity.

4.2 Internal Processes Performance

Table 5: Internal Processes Dimension - Item Analysis

Item	M	SD	Level	Rank
University develops internal procedures periodically	4.02	0.80	High	1
Technology use in operational management	3.90	0.83	High	2
Educational services evaluated against clear standards	3.89	0.78	High	3
Strategic plan implementation effectiveness	3.84	0.89	High	4
Community needs assessment	3.84	0.90	High	5
Research outcomes utilization	3.83	0.84	High	6
Balance between academic capacity and enrollment	3.82	0.82	High	7
Research development initiatives	3.81	0.85	High	8
Modern knowledge skills in hiring practices	3.81	0.88	High	9
Outstanding talent recruitment	3.68	0.95	High	10

Internal processes were the areas that demonstrated the highest performance (M=3.73), which is a reflection of the institution's commitment to continuous improvement and the integration of technology. The findings presented here are consistent with UA's strategic goal of becoming globally competitive through the efficient and effective management of operations.

4.3 Stakeholder Satisfaction Performance

Table 6: Stakeholder Satisfaction Dimension - Item Analysis

Item	M	SD	Level	Rank
Adequate resources for skill development	3.83	0.80	High	1
Equitable opportunity assurance	3.78	0.84	High	2
Curriculum development for employment	3.64	0.79	High	3
Administrative procedures for satisfaction	3.39	1.03	Moderate	4
Alumni engagement and recruitment	3.36	0.89	Moderate	5

Academic advising adequacy	3.33	1.01	Moderate	6

Stakeholder satisfaction showed an excellent overall performance (M=3.52) with a significant fluctuation between specific dimensions. The increase in materials provision and fair access to opportunities would have been enough to cover the average level of performance in academic advising and alumni engagement, thus suggesting possibilities for a targeted action of improvement.

4.4 Financial Management Performance

Table 7: Financial Management Dimension - Item Analysis

Item	M	SD	Level	Rank
Accountability system implementation	4.12	0.93	High	1
Future cost estimation accuracy	3.83	0.92	High	2
Strategic alignment of financial performance	3.81	0.84	High	3
Financial resource management strategy	3.80	0.98	High	4
Performance-based incentives	3.73	0.90	High	5
Resource utilization effectiveness	3.36	0.87	Moderate	6
Diverse funding source development	3.33	0.88	Moderate	7

Financial management performance (M=3.60) was characterized by well-established accountability systems and strategic planning, while funding diversification and resource optimization were two areas where performance was weaker, thus these areas are of utmost importance for the organization's long-term sustainability, especially in the context of the Saudi Arabia's Vision 2030 which puts a strong emphasis on institutional independence.

4.5 Learning and Growth Performance

Table 8: Learning & Growth Dimension - Item Analysis

Item	M	SD	Level	Rank
Performance evaluation utilization for development	3.67	0.79	High	1
Attractive professional development environment	3.65	0.81	High	2
Curriculum alignment with employment markets	3.33	0.97	Moderate	3
Technical knowledge in training programs	3.29	0.75	Moderate	4
Field-based training effectiveness	3.29	0.84	Moderate	5
Innovation and creativity support	3.25	0.91	Moderate	6
Enrichment programs for high-achievers	3.24	0.87	Moderate	7
Periodic curriculum review for quality	3.20	0.85	Moderate	8

The learning and growth dimension revealed the least extent of performance (M=3.37), thus it can be considered as an area that needs strategic intervention. Although the leadership was clear about the necessity of constant evaluation and professional development, the development of skills for the wider workforce particularly in the aspects of innovation support and regular curriculum renewal, was at a low level of implementation.

4.6 Comparative Analysis Across Demographics

Table 9: Performance Means by Academic Rank

Rank	Internal	Financial	Stakeholder	Learning	Overall
Professor	3.82	3.71	3.61	3.45	3.65
Assoc. Prof.	3.75	3.63	3.56	3.40	3.58
Asst. Prof.	3.68	3.52	3.45	3.31	3.49
Lecturer	3.61	3.48	3.38	3.24	3.43

One-way ANOVA found significant differences related to academic rank ($F(3,36)=2.89$, $p=0.049$), with senior faculty members perceiving higher overall performance, which may indicate that they have better access to strategic information and have been at the institution for a longer time.

Table 10: Performance Means by Years in Leadership

Years	Internal	Financial	Stakeholder	Learning	Overall
1-3	3.65	3.51	3.42	3.28	3.46
4-6	3.76	3.62	3.55	3.39	3.58
7+	3.77	3.68	3.59	3.43	3.62

Years in leadership have been shown to significantly correlate with performance perceptions ($F(2,37)=3.12$, $p=0.056$), thus indicating that more experience with institutional processes leads to a better understanding of strategic initiatives. Years in leadership have also been closely linked with performance perceptions

(F(2,37)=3.12, p=0.056), thus leading to the conclusion that familiarity with the institution's processes deepens one's understanding of strategies and performance improvement efforts.

4.7 Correlation Analysis

Table 11: Correlation Matrix of Performance Dimensions

Dimensions	Internal	Financial	Stakeholder	Learning
Internal Processes	1.000			
Financial Management	0.721**	1.000		
Stakeholder Satisfaction	0.684**	0.692**	1.000	
Learning & Growth	0.756**	0.698**	0.641**	1.000

**p<0.01

Correlations of moderate to strong strength between different dimensions (r=0.641 to 0.756) indicate that performance dimensions are interrelated which corresponds to the BSC framework theoretical basis that balanced improvement across dimensions results in synergistic effects.

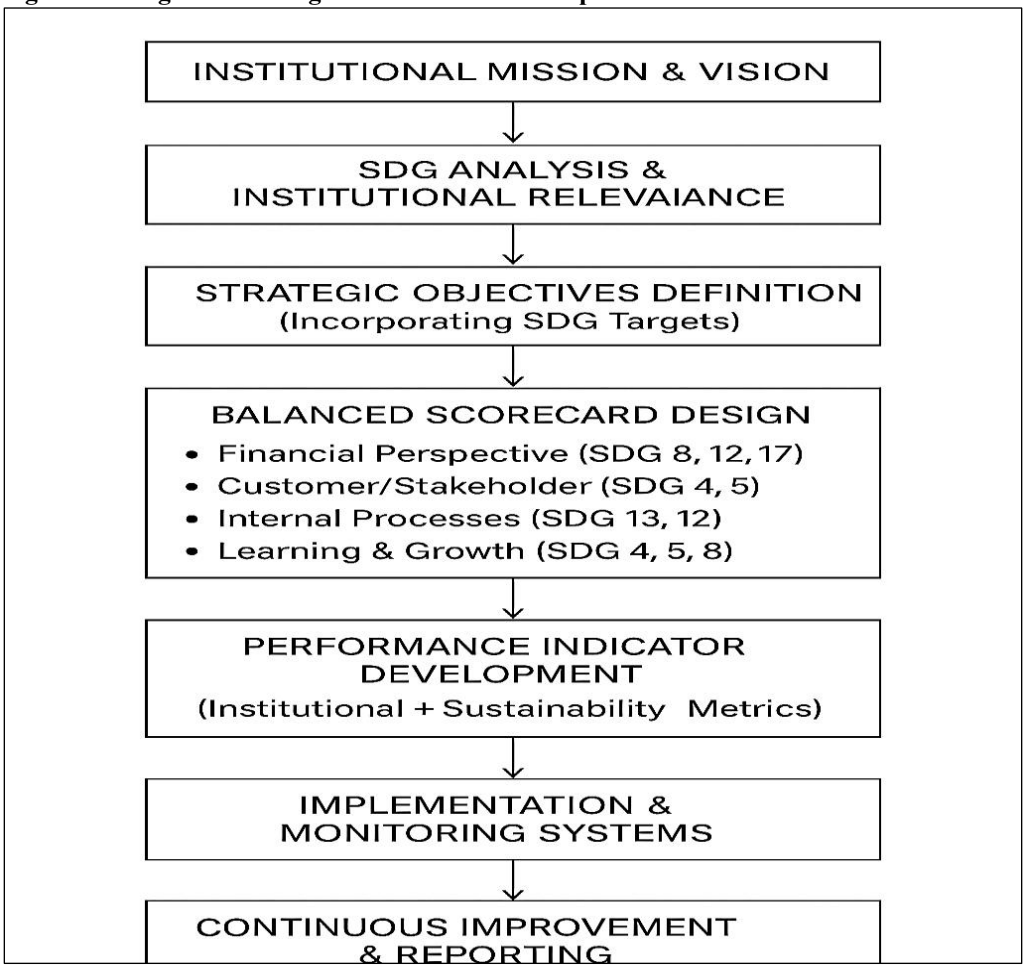
5. Proposed Integrated Framework: Strategic Performance Development Aligned with SDGs

5.1 Framework Components

The combined framework is a melting pot of the three fundamental elements:

(1) Institutional Strategic Planning, (2) Balanced Scorecard Implementation, and (3) Sustainable Development Goal Alignment.

Figure 1: Integrated Strategic Performance Development Framework



5.2 Strategic Pillars

Pillar 1: Academic Excellence and Equity (SDG 4, 5)

The 4 interconnected pillars that form this framework are the foundational aspects of the institution's journey. They represent the institution's most comprehensive and effective contributions to both global and local challenges. The first pillar, Academic Excellence and Equity (SDG 4, 5), , in line with the global goals is

very much about providing everyone access to an inclusive, fair and high-quality education. The primary goal of this action is to do away with differences in access to educational opportunities and the effect of learning.

To begin with, the progress of the action will be assessed through advanced learning metrics that will include learning experience satisfaction of students, targeting 4.3 out of 5.0; fairness watch, identifying gender, socioeconomic, and geographical factors; program accreditation at the 90% level of offerings; and above all, employment outcome parity for graduates from underrepresented groups with the overall cohort.

•Pillar 2: Research and Innovation for Development (SDG 8, 9, 13)

The second pillar Research and Innovation for Development (SDG 8, 9, 13), is based on one single idea: the use of research to lead social innovations, which would provide solutions to the most pressing problems of the world. These problems range from economic development to the issues of climate change. The pledge, in this case, would be evidenced by the attraction of research funds from development-orientated sources amounting to 30% of the total research budget and 40% of the total publications addressing SDG-related topics.

The major part of the other indicator sets is comprised of ideas that are aimed to create a substantial impact and, hence, inspire that. These ideas consist of a gradual increase of 25 percent over five years in patenting and commercialization for social objectives target and 60% faculty involvement in sustainability research.

•Pillar 3: Institutional Sustainability (SDG 12, 13)

Institution sustainability (SDG 12, 13), the third point on the agenda, is basically an initiative of the organization looking inward and acknowledging the need to not only be a model of environmentally sound management in-house but also become a source of knowledge and research on this topic for the outside world. By removing every obstacle to embedding sustainability at every level of the operational building, the goal of this action is crystal clear. Their goals are quite ambitious but still measurable such as 40% reduction of the carbon footprint of the given institution by 2030, 75% waste landfill diversion as a result of reduction and circular economy activities implementation and 30% per-capita energy efficiency increment.

•Pillar 4: Community Engagement and Partnerships (SDG 17)

World problems that are very complicated cannot be solved by a single entity, hence the fourth pillar, Community Engagement and Partnerships (SDG 17), is fundamentally based on the core value of collaborating closely with the outer world, that is the stakeholders, to solve those problems. Furthermore, this work comprises the civil society, business, and local communities as partners in development issues that the institution takes on. Performance will be evaluated by the number of active partnership agreements (50+), community service hours by faculty and students (10,000 annually) and local capacity-building programs accessing community members (5000 annually).

One of the foremost research integration objectives is that collaborative projects with development stakeholders should make up 30% of the institution's research portfolio thus ensuring that scholarship stays flexible and deeply grounded in the needs of the real world.

5.3 Integrated Performance Metri

Table 12: Sample Integrated Scorecard Metrics Incorporating SDG Dimensions

BSC Perspective	Traditional Metric	SDG-Integrated Metric	Target
Financial	Revenue growth	Revenue growth + Diversified funding from development sources	15% annual growth, 25% from SDG-related sources
Financial	Cost per student	Cost per student + Environmental cost per student	Reduce by 8% annually while improving sustainability
Customer	Student satisfaction	Student satisfaction + Equity satisfaction differential analysis	Overall 4.2/5; <0.3 gap between groups
Customer	Employer feedback	Employer feedback + Employer perception of graduate contribution to sustainable development	85% rate graduates as prepared for sustainable development roles
Internal	Course quality	Course quality + Integration of sustainability/SDG content	90% courses integrate relevant SDG content
Internal	Research output	Research output + SDG-relevant research percentage	35% of research addresses SDG challenges
Learning	Faculty development hours	Faculty development hours + Sustainability competency development	40 hours/year per faculty; 50% in sustainability topics

Learning	Retention rates	Retention rates + Retention of underrepresented groups	85% overall; maintain <3% gap between groups

6. Implementation Roadmap

6.1 Phase 1: Assessment and Readiness (Months 1-3)

The first point of the three-phased implementation is concerned with gaining a profound understanding of the institution's situation in the context of sustainability and the social development goals (SDGs). It entails a thorough institution-wide sustainability audit that aims at quantifying environmental, social, and governance (ESG) performance during a three-month period. Simultaneously, extensive stakeholder interactions—among faculty, staff, students, and community partners—will be executed to uncover and rank the most relevant SDG focus areas for the institution.

One of the key initiatives is the comprehensive documentation of all existing performance management and reporting systems for getting a grasp of the present capacities. The gathered data are used for conducting a formal gap analysis that will very systematically compare current institutional practices with the intended SDG targets. Finally, a review of the organization's technical, financial, and human resources to deploy a Balanced Scorecard (BSC) with the SDGs will also be carried out. The different milestone achievements during this phase are, among others, the detailed Assessment Report comprising findings and strategic recommendations, the Stakeholder Engagement Plan guiding communication, a draft Implementation Timeline along with the resource requirements, and a preliminary Budget Estimate ranging from $150,000 to $250,000 for the initial implementation phases**.**

6.2 Phase 2: Design and Development (Months 4-6)

By dealing with the assessment outcomes, the second phase concerns the development of the core integrated performance management system architecture. The principal part of the work is the development of a single new coherent Strategic Plan that explicitly demonstrates the linkage of institutional objectives with exact SDG targets and indicators. Consequently, the locally developed Balanced Scorecard framework will be drafted, comprising the four strategic pillars and reflecting them through 40-50 key performance indicators (KPIs) not only illustrating operational excellence but also the SDG impact.

This step also deals with establishing robust performance measurement systems that incorporate detailed data collection and reporting protocols to ensure consistency, accuracy, and timeliness. In order to prepare the organization for the change, a variety of communication and training materials will be produced. The transformation phase deliverables are the final Strategic Plan document, the full BSC Framework with its metrics, a comprehensive manual on Performance Indicator Definitions and Measurement Protocols, and an elaborated Training Curriculum with approximately 20 modules for the subsequent phase's rollout.

6.3 Phase 3: Implementation (Months 7-12)

The third phase concerns the actual introduction and the running of the institution-wide framework that has been designed. In order to implant the new system, a Leadership Development Program for 40-60 senior and middle managers who will obtain the necessary skills to lead and manage the change will prepare the ground. The main technical infrastructure, among others, the performance monitoring systems and formalized data collection procedures, will be established.

Setting baseline measurements for all KPIs is one of the most fundamental early steps to have a point of reference for future progress. The institution will start monthly performance review meetings, as a way, to promote a culture of data-driven decision-making and continuous improvement. Among the key outputs of this first year of action, there should be a Leadership Team that has been trained, a Performance Management System which is fully Operational, Initial Performance Baseline Data as a dataset, the first set of Quarterly Performance Reports, and a real-time Dashboard and Reporting System for easy access to performance data transparency.

6.4 Phase 4: Refinement and Optimization (Year 2)

The final stage is about securing, fine-tuning, and extending the performance management system based on the evidence gathered during its first operational year. The works will focus on a detailed review of the initial-year performance data with the aim of identifying the trends, accomplishments, and areas requiring changes. The company will sharpen the indicators, targets, and data collection methods based on the actual experience to make sure that they are more relevant and accurate.

Reporting and data visualization systems will be improved for greater user-friendliness and insight. A big challenge will be the institutionalization of the practices through their integration into official institutional policies and procedures so that they are beyond the initial project's time. The deliverables of the fifth stage are a Refined Performance Framework, a comprehensive Performance Management Policy, Upgraded Reporting and Visualization Systems, and the very first public Annual Sustainability and Performance Report.

7. Critical Success Factors and Enabling Conditions

7.1 Leadership Commitment

The first and foremost critical factor of leadership commitment is the continuous and visible from the top management support. It implies chief executive explicit backing of SDG integration as a core strategic priority, which can be manifested in the provision of the necessary financial and human resources. Senior leaders should become people personally responsible for their performance, which is judged by SDG-related metrics, while progress should be reported at the board level on a regular basis.

Al-Hamad and Al-Omari's (2018) study provides evidence for this, as it reveals that institutions with firm leadership commitment are successful in implementation outcomes 2.5 times more than others, the authors pointing out that such commitment "significantly predicts implementation success and sustainable institutional improvements." Consequently, among the implementation activities, there should be a public statement of commitment by the President/Rector, official board adoption of SDG-aligned priorities, resource allocation of at least 2% of the operating budget, and linking executive compensation with SDG performance metrics.

7.2 Institutional Culture and Change Management

The successful integration mainly depends on the deliberate cultural transition of the institution to a culture which implements and values continuous improvement, data-driven decision-making, and sustainable development. A properly orchestrated change management campaign is vital in handling resistance and obtaining support from all levels. It calls for strategic communication that focuses on presenting the relevance of SDGs to the university's mission and the individual roles.

Besides, recognition and reward systems should be changed in a way that they celebrate achievements in sustainability and performance. The implementation plan should commence with the launch of a public-awareness campaign regarding the university's role in sustainable development,

8. Anticipated Barriers and Mitigation Strategies

Table 13: Implementation Barriers and Mitigation Strategies

Barrier	Nature	Mitigation Strategy	Responsibility
Resistance to change	Cultural/organizational	Change management program, leadership modeling, early wins and celebration	HR/Communications
Resource constraints	Financial	Phased implementation, leverage existing systems, seek external funding	Finance/Planning
Data quality issues	Technical	Systems investment, capacity building, quality assurance procedures	IT/Data Analytics
Weak stakeholder alignment	Organizational	Consultation processes, transparent communication, collaborative goal-setting	Executive Leadership
Measurement complexity	Technical	Start with core metrics, progressively expand, invest in analytics capacity	Planning/IR
Competing priorities	Organizational	Strategic alignment process, portfolio management, clear prioritization	Executive Leadership
Limited expertise	Human capacity	Training programs, external consulting, knowledge transfer systems	HR/Training
Sustainability integration skepticism	Cultural	Evidence presentation, case studies, visible commitment	Communications

9. Expected Outcomes and Impact

9.1 Institutional Performance Improvements

The planned integration of the Balanced Scorecard to align with SDG objectives is expected to be the main driver of quantifiable improvements in institutional performance over a multi-year horizon. In the short term (Year 1), the lead accomplishments will be foundational in nature: setting up baseline performance data for 40-50 key metrics thus allowing benchmarking in the future and enabling the strategic alignment across the

university to be deepened. The targets set here are 85% of the staff being aware of the new strategic direction and 80% of the stakeholders being familiar with the institutional objectives. Furthermore, the initial rollout will provide the university with enhanced decision-making abilities due to the newly integrated data systems and dashboards, which will help shift the culture to evidence-based management.

Medium-term changes (Years 2-3) will revolve around the realization of tangible improvements in operational and strategic outcomes. Internally, process efficiencies are targeted to advance by 10-15%, while stakeholder satisfaction is expected to grow by 0.4 to 0.6 points on a 5-point scale. Academically, the aim is to reorient the research portfolio towards development-related topics so that these topics constitute 35-40% of the total output. A vital equity goal is the retention of the underrepresented student groups with the target being the difference in retention rate of less than 0.2 between the underrepresented groups and the overall cohort. Besides that, the Balanced Scorecard will be instrumental in ensuring holistic development as evidenced by the target for the "Learning & Growth" perspective to reach an average score of at least 3.65, which is an indication of balanced progress across all performance dimensions.

In the long-term (Years 4-5), the aggregated effect is expected to reshape the institution's position. The university setting itself out as a leader of sustainability-integrated higher education is the goal, thus it will be recognized domestically and internationally for its contributions to the SDGs. As a result, it will improve its competitive position in the ranking that takes into account the sustainability metrics. More importantly, the institution wants to be able to show real progress with at least 50% of its observed SDG indicators reflecting measurable, positive changes towards their targets, thus confirming the effectiveness of the model in leading both institutional excellence and global contribution.

9.2 Sustainable Development Contributions

Besides internal performance, the framework is intended to deliver significant, direct contributions to the Sustainable Development Goals, which are outlined as four key impact areas.

In Education Quality and Equity (SDG 4, 5), the institution makes a firm commitment to deliver transformative outcomes. Among these are inclusive enrollment increase to where the representation from the underrepresented population will be 25% and gender parity achievement (from the present baseline of 35%) in the fields like engineering and STEM that have been traditionally gender-biased. Also, curriculum and experience will be geared to graduate preparation for socially impactful careers with the target set that 85% of graduates get jobs in positions that are directly in line with SDG objectives, thus the institution's impact will be multiplied through its alumni.

In Research and Innovation (SDG 8, 9, 13), contributions will be knowledge-driven and solution-oriented. The research portfolio will gradually become more focused on the most urgent development challenges, with a target of 40% alignment by Year 5. Subsequently, this will lead to the innovation and entrepreneurship that are conducive to sustainable economic development. At the same time, a climate action commitment will be symbolized not only through dedicated research but also by reaching an institutional target of a 40% carbon reduction by 2030. One of the main goals is the conversion of knowledge into specifiable social benefits, with a target of at least 50 patentable and marketable innovations designed for the positive societal impact.

Concerning Responsible Operations (SDG 12, 13), the university will demonstrate environmentally friendly practices through its minimal effects on the earth. The primary goal is to operate with net zero carbon emissions by 2030. To accomplish that, the introduction of circular economy concepts in institutional purchasing and waste management will be the main tools that will lead to the achievement of a zero-waste-to-landfill goal. In addition, the use of procurement power to bring about more significant changes will be the way forward for the institution by putting 100% of its major vendors through sustainability evaluations to ensure that the supply chain practices are responsible.

Lastly, through Partnerships and Collaboration (SDG 17), the institution will intensify its influence. As a result, it intends to broaden the collaboration with more than 50 development stakeholders coming from the area of civil society, government, and industry. In return, the knowledge transfer will be one of the direct support mechanisms for community development, with the activities' target being over 10,000 annual beneficiaries. Most research (30% of the portfolio) will be supported by the joint projects that are the solutions of the shared challenges and, in that way, the university will be the leader and partner in regional as well as global sustainable development initiatives.

10. DISCUSSION

10.1 Interpretation of Findings

This study of King Khalid University has revealed robust institutional performance on the whole (M=3.55), with marked strengths in internal processes (M=3.73) and financial management (M=3.60). Such results hint at a firm operational base that could be used to promote greater integration of sustainability. Still, the moderate performance in learning and growth (M=3.37) may be indicative of some limitations in the

development of human capital and innovation, which are two areas crucial to the advancement of the university as well as to its contributions to sustainable development.

The study found that the correlations between the different dimensions were moderate (r=0.641-0.756) which is in line with the BSC theoretical framework. This means that the different performance dimensions are interlinked in a way that improvement in one area can lead to improvement in others. The finding in question argues for the use of integrated implementation approaches instead of separate optimization efforts, thus it is in line with the proposed framework's holistic approach to university performance development.

The differences in performance perception as to academic rank and leadership tenure imply that experience and seniority raise the level of perception of institutional performance and strategic alignment. Senior professors perceive higher performance across all dimensions (M=3.65) when compared to lecturers (M=3.43), a difference of 0.22 points. This trend points to the importance of comprehensive change management and communication strategies in creating a shared understanding at all levels of the institution, especially in terms of sustainability integration which some faculty members may be less familiar with.

10.2 Comparison with Literature and Research

The findings correspond to the studies that have been done before on the implementation of BSC in higher education. Al-Tuwajri (2019) observed similar moderate performance levels in an equivalent institutional environment with the learning and growth dimension being the area of most significant weakness. On the other hand, King Khalid University's performance (M=3.55 overall) is better than the benchmark in Al-Tuwajri's research (M=2.89) which indicates a higher level of institutional progress in strategic performance management.

The upgrade may be an indication of the university going through several changes internally: (1) Since 2018, the university has been putting more emphasis on strategic planning explicitly, (2) approximately at the college level and at the department level performance monitoring systems have been established, and (3) the university has been putting more emphasis on research output and international rankings. The comparative analysis with the global institutions shows that a university with high performance and well-integrated sustainability normally balances its performance dimensions. For instance, the top universities usually have the average score across all the dimensions greater or equal to 3.8 (Lozano et al., 2015). It hence indicates that King Khalid University has a window of opportunity especially in the learning and growth area to lift it up to the same level as other dimensions.

10.4 Practical Implications for University Leaders

The research offers a number of concrete suggestions to be:

University Leaders:

1. Diagnostic Assessment First: Leaders are advised to thoroughly evaluate the current performance of their organization in all BSC dimensions through the diagnostic assessment before they initiate any:

The moderate performance in learning and growth as reported in this study is quite typical; a good number of universities do not allocate sufficient funds for the development of human capital while they give operational and financial priorities more consideration. It is only through assessment that these imbalances become clear and provide a base for the prioritized improvement efforts.

2. Explicit SDG Prioritization: Universities are expected to clearly state which SDGs are most related to their mission and context. King Khalid University, being in Saudi Arabia and having the Vision 2030 as its development agenda, correctly concentrates on SDGs 4 (Quality Education), 8 (Decent Work), and 12-13 (Sustainability). Different universities will be in a position to prioritize different goals. The framework should be a reflection of the institutional context rather than an attempt of generic SDG integration.

3. Balanced Improvement Strategy: The strong correlations between BSC dimensions (r=0.641-0.756) indicate that upgrading performance in the weakest dimensions might lead to overall institutional capacity enhancement. Instead of trying to improve simultaneously all dimensions, managers could strategically plan the sequence of improvement: thus they can use internal processes and financial management to create the base for investments in learning and growth as well as stakeholder satisfaction.

4. Stakeholder-Centered Implementation: The differences in views about institutional performance of academic ranks and leadership tenure point out that engagement of stakeholders is very important in implementation. The change management plan has to consider the resistance of those who are less familiar with the performance management approach and especially with regard to sustainability dimensions which may be viewed as secondary to the core academic missions since these people will be the ones to rebut management's claims the most.

10.5 Limitations and Future Research

This research has some limitations that need to be taken into account and solved by future investigations:

Sample Scope: This research is about one big research university in Saudi Arabia. Though the university is a good model for big comprehensive universities in the Arab world and thus the results may be applicable to

the region; however, they may not apply to small institutions, liberal arts colleges, or universities located in other countries that have different regulations and cultures.
Cross-sectional Design: This research work chooses a cross-sectional design, thus performance is shown only at a single point in time. Studies conducted over time with institutions that have adopted the suggested framework would be the proof of its actual effectiveness and long-term sustainability impacts.
Self-reported Perceptions: The data are based on self-reported perceptions of academic leaders and not on objective performance measures. While it is indeed the perception of the leaders that is important for getting the institutional culture and readiness for change, still the addition of some objective data from school records, student surveys, and third-party evaluations would make the arguments more solid.
Limited Qualitative Data: There is also an element of qualitative research through the analysis of the documents and the open-ended responses. However, to gain a deeper understanding of the challenges faced and the factors that contributed to the success of the implementation, the researchers should conduct more interviews and focus groups.

Future Research Directions:
First of all, longitudinal case studies tracking the SDG-aligned performance management implementation for a period of 3-5 years.
Secondly, comparative analysis of different institutions, which have implemented the proposed framework.
Next, a deep dive into the specific mechanisms through which the performance management systems bring changes in the behavior of the institutions and eventual outcomes.
Another point is research on possible stakeholder perspectives (student, faculty, employer, community) about the integration of SDG.
Finally, a study of institutional factors that could potentially moderate the success of implementation (institutional size, wealth, governance structure, national context).

11. Recommendations

11.1 For University Leaders and Senior Management

1. Establish Executive Commitment: Singly or jointly with other strategic priorities SDG-aligned performance
management has to be clearly endorsed by the executive tier through mechanisms such as board resolutions, budgeting and linking executive pay to the achievement of related goals.
2. Conduct Institutional Assessment: Explore the four BSC dimensions as a framework conduct an exhaustive self-assessment of the organizational performance. Point out exact gaps between actual and desired performance; emphasize learning and growth dimensions.
3. Develop Integrated Strategic Plan: Modify the university strategic plans to explicitly feature the incorporation of relevant SDG targets. Make sure that the curriculum plans at college, faculty, and individual levels derive from the SDG-integrated strategic objectives.
4. Invest in Systems and Capacity: Set aside the necessary amount of money (250,000-500,000 dollars over three years) for the performance management system, staff training, and the technical infrastructure required for the effective implementation of the staff.
5. Establish Governance Structures: Form a cross-departmental Performance Management Committee consisting of members from different functions to supervise the execution, deal with the challenges, and ensure the continuous institutional commitment.

11.2 For Faculty and Academic Staff

1. Participate in SDG Alignment: Faculty members and staff should implement sustainable development aspects into teaching, research, and service activities. Make familiarizations between disciplinary expertise and SDG targets.
2. Facilitate Skill Development: Get involved in professional development programs which help you gain the necessary expertise in sustainability-appropriate pedagogy, research, and community engagement.
3. Help Performance Monitoring: Fill in the forms provided in performance measurement initiatives with truthful data and give your opinion about the relevance and feasibility of the indicators.
4. Be a Good Example of Sustainability: Let people see that you are dedicated to the environment through personal activities—energy saving, waste limiting, eco-friendly transport—that help the change of the institutional culture.

11.3 For Government and Policy Makers

1. Create Alignment for Higher Education Policy: Align higher education policies and funding tools to be a source of:
universities that have integrated SDG targets into their performance systems well and can show real progress toward development goals.

2. Promote Institutional Freedom: Ensure adequate institutional independence along with:
capital enough and reliable to allow the universities to undertake long-term strategic investments in the integration of sustainability and performance management systems.
3. Form the SDG Accountability Frameworks: Design national frameworks that set out expectations for university contributions to SDG targets, with clear reporting and accountability mechanisms.
4. Interinstitutional Learning Made Easy: Let universities have more chances to talk through:
Conferences, networks, and research partnerships about how they implement the SDGs in higher education.

11.4 For Higher Education Associations and International Organizations

1. Implementation Guidance Development: Coordinate detailed implementation guides based on the evidence from institutions that have efficiently integrated SDG targets into the performance management system.
2. Establish Benchmarking:
Universities will be able to assess their performance by comparing it with their international counterparts if comparative data on their performance across SDG-based metrics are developed.4. Support Professional Development:
Develop and deliver specialized training courses for university leaders on BSC-SDG integration, change management, and sustainability-focused strategic planning.4. Promote Research collaboration:
Help the formation of research networks which are dedicated to finding out the most effective ways of integrating SDG in higher education.

CONCLUSION

Based on this research, universities can largely strategically align their performance management systems with sustainable development goals. The integrated framework proposed, which comprises the Balanced Scorecard approach with the addition of SDG targets, is a promising way of turning sustainability pledges into operational ones.
The data from King Khalid University shows that the university is overall financially and operationally sound, nevertheless, there is a considerable room of improvement for better human capital development and increased innovation capacity. The moderate correlations between different performance areas suggest that balanced improvement in various areas leads to synergistic institutional benefits.
Support of leadership, resources, and stakeholders is indispensable, as well as having the right skills in change management for a successful implementation. Therefore, a proposed implementation roadmap can be a practical guide for universities, which are at different maturity levels concerning performance management and the sustainability integration.
The risks related here are beyond institutional excellence. Universities are major contributors to sustainable development through education, research, and community engagement. By internal performance management systems aligning with external sustainability objectives, they will be able to continue making a genuine contribution to solving global issues with the resources and intellectual capital they have, thereby, at the same time, increasing their institutional effectiveness and competitiveness.
As a response to the 2030 Sustainable Development Agenda imperative, universities all over the world have to perceive the integration of performance management systems with SDG targets not only as a strategic opportunity but also as their institutional responsibility. This paper does that by delivering both the evidence and the framework for a seamless and efficient integration.

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