

KPIs guide for graduate programs

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Introduction

Performance indicators are important tools for assessing the quality and monitoring the performance of academic programs. They contribute to continuous development processes and support decision-making.

DAU seeks to measure its performance indicators by carrying out internal and external benchmarking by using appropriate tools such as surveys, statistical data, among others, depending on the nature and purpose of each indicator. The aim of the whole process is to formulate performance indicator reports that are necessary to determine the current level of performance and identify areas of strengths and those that need improvement.

This guide has been prepared to shed light on the nature of KPIs, their definition, types, and the importance of measuring them. It also includes an account of the KPIs approved by NCAAA, calculation methods, and the description cards for these indicators. The guide also provides an overview of the benchmarking types, their importance, how to carry benchmarking out, and how to use results in the evaluation processes and the development of improvement plans.

DAU's Vision

To be a world-class university.

DAU's Mission

To inspire professional and personal success of our graduates through excellence in education, research, and community engagement.

Definition of Performance Indicators:

The performance indicator can be defined as:

- An administrative tool in monitoring progress towards achieving goals.
- Information and statistical data that can be measured and compared to determine progress towards the goal.
- Tools to measure how close the organization is to achieving goals.

Another Definition:

Performance indicators comprise a set of quantitative and qualitative measures used to track performance during a certain period to identify the extent to which agreed performance levels have been achieved. These are the checkpoints that monitor progress towards achieving standards.

Importance of Performance Indicators:

- 1. Control and measure progress towards achieving strategic goals.
- 2. Develop the institution's performance for competitive purposes.
- 3. Help leadership make decisions based on correct and accurate information.
- 4. Monitor performance for the purpose of benchmarking universities, colleges, and programs.
- 5. Provide sufficient information to external auditors and evaluators for the purpose of academic accreditation.
- 6. Ensure transparency and accountability.
- 7. Facilitate institutional and program evaluation processes.
- 8. Provide the Ministry of Higher Education and beneficiaries with input to ensure that the institution is on the right track.
- 9. Provide evidence of improvement of performance.

Types of Performance Indicators:

- 1. Input indicators.
- 2. Operation indicators
- 3. Output indicators.
 - Quantitative indicators such as statistics and numerical data of different types.
 - Qualitative indicators such as measurements of the level of beneficiary satisfaction.

Levels of Performance Indicators:

Measuring performance, whether at the individual level, the level of the organizational unit, or the institution level, is a complement to the evaluation, control, and quality assurance processes.

The institution's overall performance is the total, integrated sum of the results of the institution's operations and its interaction with both internal and external environment. Therefore, it includes the following levels:

- 1. Performance of individuals in their organizational units.
- 2. Performance of organizational units within the general framework of the institution.
- 3. The overall performance of the institution with reference to its internal and external environment.



Characteristics of a good performance indicator (SMART)



Characteristics of a good performance indicator:

- 1. It is precisely and clearly defined.
- 2. It is clearly understood by individuals and teams within the organization.
- 3. It is realistic and achievable within the capabilities of the institution.
- 4. It is quantitatively and qualitatively measurable.
- 5. It is simple, and easy to calculate and understand.
- 6. It is highly credible.
- 7. It is achievable within an acceptable period.
- 8. It can be evaluated periodically, so that reports on the extent of its progress can be issued and communicated to all stakeholders.
- 9. Determining the individuals and departments responsible for achieving them and following up on these bodies.
- 10. It is compatible with and directly related to the institution's vision, goals, and strategic objectives.
- 11. It is representative of the institution and is fully inclusive of its performance and operations.
- 12. It can be verified by an independent body.

Areas for the Use of Performance Indicators:

Performance indicators are used in evaluating:

- Strategic plans
- Program and course specifications.
- Self-evaluation scales.
- Annual reports
- Operational plans for development and improvement

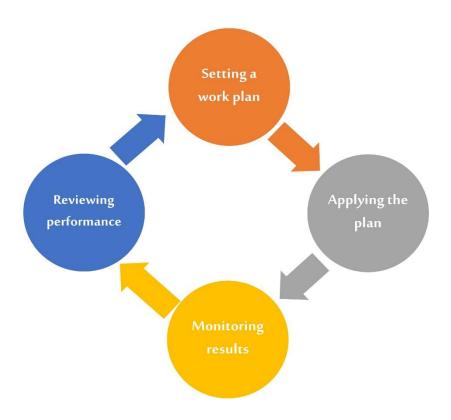
Performance Analysis and How to Determine Performance Indicators

This is done in two stages:

• The first stage: evaluate the current level of performance through:



- The second stage: develop an action plan for improvement, which includes:
- 1. Setting a work plan
- 2. Applying the plan
- 3. Monitoring results
- 4. Reviewing performance



Benchmarking:

Leading organizations that aim for stability and continuous improvement, while achieving excellence and innovation, need to constantly work on enhancing their performance by comparing it to the performance of their competitors and other leading organizations in their field of work.

Benchmarking Definition:

One of the tools used by organizations for evaluation, development, and performance improvement is by comparing their performance to other models, whether within the same organization, outside of it, or at the local or global level. The purpose is to identify areas of strength that can be enhanced and areas that need improvement to achieve the best performance. It is an ongoing process that does not stop at a certain point.

Types of Benchmarking

There are several types of benchmarking, the most important of which are:

Internal and External Benchmarking:

1. Internal Benchmarking:

- Self-comparison: This involves comparing an organization or program with its own performance in previous years. This type of benchmarking helps assess performance trends, whether there is improvement, stability, or decline.
- Comparison with other programs within the same institution: In this case, an educational institution
 compares each program or department within it with similar programs and departments based on
 specific criteria. The required information is gathered using various measurement tools.

2. External Benchmarking:

It can be either local or international. In external benchmarking, an educational institution compares its performance as an organization or program with another institution or a similar program based on specific criteria. The required information is gathered using various measurement tools.

Importance of Benchmarking:

- 1. Allows an organization to assess its actual performance compared to its competitors.
- 2. Helps the organization identify the specific performance gap between itself and other institutions in its field.
- 3. Provides opportunities for collaboration between institutions or local units.
- 4. Guides the organization, internally and externally, towards best practices and leveraging the expertise of other successful institutions.

- 5. Helps the organization prioritize improvement areas that require attention and give them priority in implementation.
- 6. Reduces subjectivity in decision-making related to quality.
- 7. Enables continuous learning.
- 8. Utilization of data and information.

Criteria for Selecting Benchmark Universities:

The university establishes several criteria for selecting benchmark universities, including:

- 1. Benchmark universities should perform the three main functions of a university: scientific research, education, and community service.
- 2. The number of students in benchmark universities should be comparable.
- 3. Benchmark universities should offer the same major disciplines in various scientific branches (medical, applied, and humanities).
- 4. They should grant the same academic degrees.
- 5. There should be similarity in the number and competence of faculty members.

Applying of Benchmarking

To establish a benchmarking framework, it is necessary to answer the following questions:

- 1. Where do we stand compared to others?
- 2. Which universities are best suited for benchmarking their activities?
- 3. What areas of improvement are needed?
- 4. How can we implement the practices of those universities?
- 5. How can we achieve greater excellence than those universities?

Steps for implementing benchmarking:

- 5. Implementing best practices and developing an action plan.
- 3. Researching and selecting a benchmarking partner.
- 1. Understanding and monitoring the current performance of the institution to identify existing gaps.

- Evaluating the results and developing improvement plans.
- 4. Implementing benchmarking processes.
- 2. Identifying areas that require development and establishing benchmarking targets.
- Continuous development and improvement can be achieved by reapplying these steps.

Types of Benchmarking Partners:

1. Similar Peers:

These are institutions or programs that have a similar level of performance and share similar characteristics and interests. However, for the benchmarking to be beneficial, these peers should have quality management systems in place, be accredited or on the verge of accreditation, to ensure that their practices and outcomes are at a good level.

2. Aspirational Peers:

These are distinguished institutions or programs that surpass the university or program. In this case, the institution conducts a cooperative benchmarking comparison with them to exchange experiences and acquire practices for development. It is not necessary for there to be a similarity in many features and conditions in this case.

3. Learning from Best Practices:

Here, the institution emulates some other institutions or programs that have exemplary practices and sees it beneficial to apply those practices, even if their activities are not similar. For example, the establishment of a method to secure stable financial resources in universities based on the practices of other universities.

Criteria for Selecting Benchmarking Partners:

- 1. Similarity in the educational system
- 2. Similarity in mission and objectives
- 3. Ability to provide data.
- 4. Quality of indicators and measurement methods
- 5. Cultural, social, and economic conditions

Relationship between Performance Indicators and Benchmarking:

There is an integrated relationship between benchmarking and performance indicators. All benchmarking activities that an institution wishes to undertake require measuring the areas that need to be compared, whether internally or externally. Therefore, after defining the main goal of benchmarking, the indicators to be used in the comparison are selected.

Cost of Benchmarking:

Benchmarking is usually done through the establishment of collaborative agreements between institutions to exchange indicators and information for comparison purposes. There are two scenarios:

- Free benchmarking: This occurs when the performance levels of the institutions are similar, and both
 parties require each other's information. In this case, benchmarking is done without any monetary
 exchange.
- Fee-based benchmarking: Sometimes, when one institution outperforms another and the latter seeks
 access to their knowledge and expertise, a cooperative agreement is formed. The superior institution
 guides and supports the lower-performing institution for a specified period to improve its
 performance and reach the desired level. Fees are charged based on the amount of support required.

KPIs approved by the NCAAA:

The National Centre for Academic Accreditation and Evaluation has identified 13 key performance indicators at the program level. All of which are in line with the evolving program accreditation standards version 2022. These indicators are the minimum to be periodically measured, and the academic program can use additional performance indicators if it believes they are necessary to ensure the quality of the program:

Code	Key Performance Indicators	Description
KPI-PG-1	Students' Evaluation of quality of learning experience in the program	Average of the overall rating of final year students of the quality of learning experience in the program.
KPI- PG-2	Students' evaluation of the quality of the courses	Average students overall rating for the quality of courses in an annual survey
KPI-PG-3	Students' evaluation of the quality of academic supervision	Average students' overall rating of the quality of scientific supervision in an annual survey
KPI-PG-4	Average time for students' graduation	Average time (in semesters) spent by students to graduate from the program.
KPI-PG-5	Rate of students dropping out of the program	Percentage of students who did not complete the program to the total number of students in the same cohort.
KPI-PG-6	Employers' evaluation of the program graduates' competency	Average of the overall rating of employers for the competency of the program graduates in an annual survey.
KPI-PG-7	Students' satisfaction with services provided	Average of students' satisfaction rate with the various services provided by the program (food, transportation, sports facilities, academic advising,) on a five-point scale in an annual survey.
KPI-PG-8	Ratio of students to faculty members	The ratio of the total number of students to the total number of full-time and fulltime equivalent faculty members participating in the program.
KPI-PG-9	Percentage of publications of faculty members	Percentage of faculty members participating in the program with at least one research publication during the year to total faculty members in the program.
KPI-PG-10	Rate of published research per faculty member	The average number of refereed and/or published research per faculty member participating in the program during the year. (Total number of refereed and/or published research to the total number of faculty members during the year)

Code	Key Performance Indicators	Description
KPI-PG-11	Citations rate in refereed journals per faculty member	The average number of citations in refereed journals from published research (total number of citations in refereed journals from published research for faculty members to the total published research).
KPI-PG-12	Percentage of students' publication	Percentage of students who: a. published their research in refereed journals. b. presented papers at conferences. to the total number of students in the program during the year.
KPI-PG-13	Number of patents, innovative products, and awards of excellence	Number of a. Patents and innovative products b. National and international excellence awards obtained annually by the students and staff of the program.

KPI description cards:

KPI-PG-1 - Students' Evaluation of quality of learning experience in the program

KPI Code	KPI-PG-1							
KPI Name	Students' Evalua	Students' Evaluation of quality of learning experience in the program						
KPI Description	Average of the ov	verall rating of final year stu	udents of the o	quality of learr	ning experienc	e in the		
Kirbesenption	program.							
KPI Cycle Time	Annually							
KPI polarity	Positive							
KPI Measurement Tool	Program Evaluat	ion Survey						
Ki i weasarement 1001	Student experier	nce survey						
KPI Level	Program							
	Current year							
Actual (current) value	Target value	Internal benchmarking	External benchmarking		New Target			
Actual (current) value	raiget value	internal benefiniarking	University 1	University 2	University 3	value		
	Using the results	available of the Program E	valuation Sur	vey (PES) and	Student exper	ience survey		
calculating KPI	(SES), which are	distributed annually to fina	al-level studen	ts, where the a	average for ea	ch item (all		
(calculating method)		calculated, calculated the a	average of the	se averages, th	nen the final ev	aluation is		
	calculated on a fi	ive-point scale.						
Analysis								
Priorities for								
Improvement								

KPI-PG-2 - Students' Evaluation of the quality of the courses

KPI Code	KPI-PG-2	KPI-PG-2					
KPI Name	Students' evalua	students' evaluation of the quality of the courses					
KPI Description	Average students	s overall rating for the quali	ity of courses	in an annual s	urvey		
KPI Cycle Time	Annually						
KPI polarity	Positive						
KPI Measurement Tool	Course Evaluation	n Survey					
KPI Level	Program						
		Current year					
Actual (current) value	Target value		External benchmarking		New Target		
Actual (current) value	raiget value		University 1	University 2	University 3	value	
calculating KPI (calculating method)	S	available of the Course Eva is calculated, calculated the ive-point scale.			Ü		
Analysis							
Priorities for Improvement							

KPI-PG-3 Students' evaluation of the quality of academic supervision

KPI Code	KPI-PG-3	CPI-PG-3							
KPI Name	Students' evalua	Students' evaluation of the quality of academic supervision							
KPI Description	Average students	Average students' overall rating of the quality of scientific supervision in an annual survey							
KPI Cycle Time	Annually								
KPI polarity	Positive								
KPI Measurement Tool	Quality of acade	mic supervision survey							
KPI Level	Program								
	Current year								
Actual (current) value	Target value	Internal benchmarking	External benchmarking		New Target				
Actual (current) value	raiget value		University 1	University 2	University 3	value			
calculating KPI (calculating method)	each item (all sur	available of the quality of a rvey items) is calculated, ca culated on a five-point scale	Iculated the a						
Analysis									
Priorities for Improvement									

KPI-PG-4 Average time for students' graduation

KPI Code	KPI-PG-4	CPI-PG-4							
KPI Name	Average time for	Average time for students' graduation							
KPI Description	Average time (in	Average time (in semesters) spent by students to graduate from the program.							
KPI Cycle Time	Annually								
KPI polarity	Positive								
KPI Measurement Tool	Performance ind	icators form for graduate p	rograms						
KPI Level	Program								
		Current year							
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target			
Actual (current) value	raiget value	Internal benchmarking	University 1	University 2	University 3	value			
calculating KPI (calculating method)		on available in the performa program manager, the dura n.							
Analysis									
Priorities for Improvement									

$\label{eq:KPI-PG-5} \textbf{Rate of students dropping out of the program.}$

KPI Code	KPI-PG-5							
KPI Name	Rate of students	Rate of students dropping out of the program						
KPI Description	Percentage of stusame cohort.	Percentage of students who did not complete the program to the total number of students in the same cohort.						
KPI Cycle Time	Annually							
KPI polarity	Negative							
KPI Measurement Tool	Performance ind	icators form for graduate p	rograms.					
KPI Level	Program							
Current year								
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target		
,			University 1	University 2	University 3	value		
calculating KPI (calculating method)	can be determine	n available in the performand between the number of some of the program.		· ·	, ,			
Analysis								
Priorities for Improvement								

$\label{lem:kpi-GP-6} \textbf{Employers'} \ \textbf{evaluation} \ \textbf{of the program graduates'} \ \textbf{competency}.$

KPI Code	KPI-PG-6	KPI-PG-6					
KPI Name	Employers' evalu	Employers' evaluation of the program graduates' competency					
KPI Description	Average of the ovannual survey.	verall rating of employers fo	or the compet	ency of the pro	ogram gradua	tes in an	
KPI Cycle Time	Annually						
KPI polarity	Positive						
KPI Measurement Tool	Employer Evaluati	on Survey					
KPI Level	Program						
		Current year					
Actual (current) value	Target value	Internal benchmarking	Exte	External benchmarking		New Target	
Actual (current) value	raiget value	internal benefitinarking	University 1	University 2	University 3	value	
calculating KPI (calculating method)	of the second ser survey items) is o	Using the results available of Employer Evaluation Survey which is sent annually at the beginning of the second semester of each year, where the average estimate for each item of evaluation (all survey items) is calculated, calculated the average of these averages, then the final evaluation is calculated on a five-point scale.					
Analysis							
Priorities for							
Improvement							

Quality Culture Unit

KPI-GP-7 Students' satisfaction with services provided.

KPI Code	KPI-PG-7							
KPI Name	Students' satisfac	Students' satisfaction with services provided						
KPI Description		Average of students' satisfaction rate with the various services provided by the program (food, transportation, sports facilities, academic advising,) on a five-point scale in an annual survey.						
KPI Cycle Time	Annually							
KPI polarity	Positive							
KPI Measurement Tool	Program Evaluat	ion Survey - Student Experi	ience Survey (SES)				
KPI Level	Program	Program						
Current year								
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target		
Actual (current) value	ranget variae	internal benefiting	University 1	University 2	University 3	value		
calculating KPI (calculating method)	each item of ev	ned surveys, which are dist aluation is calculated, calculated calculated on a five-point scale	culated the a			· ·		
Analysis								
Priorities for Improvement								

$\label{eq:KPI-GP-8} \textbf{Ratio of students to faculty members.}$

KPI Code	KPI-PG-8	KPI-PG-8						
KPI Name	Ratio of students	Ratio of students to faculty members						
KPI Description		The ratio of the total number of students to the total number of full-time and fulltime equivalent faculty members participating in the program.						
KPI Cycle Time	Annually							
KPI polarity	Negative							
KPI Measurement Tool	SIS system and P	rogram managers in colleg	es, confirm by	Human Reso	urces Manage	ment		
KPI Level	Program							
		Current year						
Actual (current) value	Target value	T . I I I I I I	External benchmarking		New Target			
Actual (current) value	raiget value	Internal benchmarking	University 1	University 2	University 3	value		
calculating KPI (calculating method)	Finding the num Human Resource	ber of students at the level ber of faculty members (ful es Management. ortion of students to the nu	I time) from P	rogram mana	gers in college	s, confirm by		
Analysis								
Priorities for Improvement								

KPI-PG-9: Percentage of publications of faculty members

KPI Code	KPI-PG-9	KPI-PG-9						
KPI Name	Percentage of p	Percentage of publications of faculty members						
KPI Description		ull-time faculty members members in the program	who publish	ed at least on	e research du	ring the year		
KPI Cycle Time	Annually							
KPI polarity	Positive							
KPI Measurement Tool	Form of faculty	Research Activities.						
KPI Level	Program							
		Current year						
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target		
recau (carretty varae	ruiget value	mema benemia king	University 1	University 2	University 3	value		
calculating KPI (calculating method)	Divide the nun	ion available in the form nber of faculty members v embers in the program Ex	who publishe	ed at least one	research dur			
Analysis								
Priorities for Improvement								

KPI-PG-10: Rate of published research per faculty member

KPI Code	KPI-PG-10					
KPI Name	Rate of published research per faculty member					
KPI Description	The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year)					
KPI Cycle Time	Annually	Annually				
KPI polarity	Positive	Positive				
KPI Measurement Tool	Form of faculty Research Activities.					
KPI Level	Program					
Current year						
Actual (current) value	Target value	Internal benchmarking	Exter	nal benchma	New Target	
ricial (current) value	ranger variae		University 1	University 2	University 3	value
calculating KPI (calculating method)	Using information available in the form of faculty Research Activities which is filled in by the Scientific Research and Innovation Committee. Total number of refereed or published research per each faculty member during the year / the total number of full-time or equivalent faculty members during the year					
Analysis						
Priorities for Improvement						

KPI-PG-11: Citations rate in refereed journals per faculty member

KPI Code	KPI-PG-11						
KPI Name	Citations rate in refereed journals per faculty member						
KPI Description	The average number of citations in refereed journals from published research per faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published)						
KPI Cycle Time	Annually	Annually					
KPI polarity	Positive						
KPI Measurement Tool	Form of faculty	Form of faculty Research Activities.					
KPI Level	Program						
Current year							
Actual (current) value	Target value	Internal benchmarking	External benchmarking University 1 University 2 University 3		New Target value		
calculating KPI (calculating method)	Using information available in the form of faculty Research Activities. Total number of citations in refereed journals from published research for full-time or equivalent faculty members / the total research published)						
Analysis							
Priorities for Improvement							

KPI-PG-12: Percentage of students' publication

KPI Code	KPI-PG-12					
KPI Name	Percentage of students' publication					
KPI Description	Percentage of students who: a. published their research in refereed journals. b. presented papers at conferences. to the total number of students in the program during the year.					
KPI Cycle Time	Annually	Annually				
KPI polarity	Positive	Positive				
KPI Measurement Tool	Form of faculty	Form of faculty Research Activities.				
KPI Level	Program	Program				
Current year						
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target
retual (current) value	ranget value		University 1	University 2	University 3	value
calculating KPI (calculating method)	Using information available in the performance indicators form for graduate programs, Divide the number of students who published at least one research during the year / total students in the program, in case there are research activities for students.					
Analysis						
Priorities for Improvement						

KPI-PG-13: Number of patents, innovative products, and awards of excellence

KPI Code	KPI-PG-13					
KPI Name	Number of patents, innovative products, and awards of excellence					
KPI Description	Number of a. Patents and innovative products b. National and international excellence awards obtained annually by the students and staff of the program.					
KPI Cycle Time	Annually					
KPI polarity	Positive					
KPI Measurement Tool	Form of faculty Research Activities.					
KPI Level	Program					
Current year						
Actual (current) value	Target value	Internal benchmarking	External benchmarking			New Target
/ tetaur (current) variae	ruiget vuide		University 1	University 2	University 3	value
calculating KPI (calculating method)	Using information available in the in the form of faculty Research Activities, We can find out the number of patents, innovative products, and awards of excellence, received annually by students and program members.					of excellence,
Analysis						
Priorities for Improvement						