



## Research Article

© 2021 Magdy Abd Elrhman Abdallah Mohammed.

This is an open access article licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (<https://creativecommons.org/licenses/by-nc/4.0/>)

Received: 18 February 2021 / Accepted: 15 April 2021 / Published: 17 May 2021

# The Role of Benchmarking in Achieving Competitive Advantage of Egyptian Education Faculties Programs

Dr. Magdy Abd Elrhman Abdallah Mohammed

Assistant Professor of Foundations of Education  
Faculty of Education, New Valley University, Egypt

DOI: <https://doi.org/10.36941/mjss-2021-0020>

## Abstract

The study aimed to identify the concept and types of benchmarking, and to determine the Justifications of choosing benchmarking approach in order to achieve the competitive advantage for Egyptian Education Faculties programs, and also determine the performance indicators for Egyptian Education Foundations programs that can be used when benchmarking with the corresponding programs. The study depended on the descriptive research approach in achieving its objectives and answering its various questions and manipulating its different approaches. The study constructed a suggested model that can be used when benchmarking to Egyptian Education Faculties Programs with its distinct corresponding Programs. The study also showed the complementary relationship between benchmarking and performance indicators and their role in diagnosing an aspect of the competitive reality in the Egyptian Education Faculties programs.

**Keywords:** Role, benchmarking, competitive, advantage, Education Faculties, programs

## 1. Introduction

Universities in various countries are raising new responsibilities that make them an important tool to push forward the comprehensive development and achieve the desired role in progress and prosperity. The real challenge for these universities is in its continuous renewable role to lead changing in community. This is what people are Looking forward at different philosophies and ideologies.

In light of intense competition between institutions which is always looking for developing itself, these institutions need to adopt different approaches that helps in developing and improving its performance. The benchmarking is one of the modern methods that have proved tremendous success of developed countries in improving the performance of its institutions through learning from distinguished institutions in their specific field of work. (Abdul Majeed; Kamel. 2005. 7)

If it is stated that Benchmarking began in the nineteenth century whence its first appearance was linked to the field of Areas and then shifted to industry field, but now they are no longer monopolized to a specific field, but rather it has become interconnected and intertwined with many organizations and institutions. Considering that benchmarking is part of the way, it remains in a desirable competitive position.

Benchmarking approach is one of most recent approaches that are used by organizations to

evaluate performance quality, through a comparison between them and other institutions of competition or excellence in a particular domain which can be considered as leading institutions. Benchmarking focuses on performance method and not the results, it provides a real standard for judging process, through comparison among best practices available to competitors in the same field. (Barak & Kniker 2002.54)

Benchmarking stands on comparison with other institutions in order to achieve competitive advantage, which includes procedural elements which are scientifically characteristic and have a specific methodology, which aims at determining strengths and weaknesses of institution. (University of Alicante.2013), and that is by comparing performance aspects of organization with best corresponding institutions, it is also an ongoing process that does not stop if the organization wants to keep up distinguished. (Ali. 2011. 125)

Benchmarking contributes in identifying ways which orient university institutions towards their future that they want to achieve. As well as, finding out its competitive advantage, moreover, allowing various components of university institution to work in harmony so as to achieve a common goal, and agree on a common vision for everyone who contributes in institution activities, along with encouraging them to invent ideas that correspond with strategic trends of university institution. (Norman. 2000. 6 & Lund).

Benchmarking is a distinct tool for providing data and information for academic programs at universities, because it has multiple types of internal and external comparisons, moreover, benchmarking is not just a way to get information, but also an approach aimed at learning and development. (Samuel. 2010. 105)

Due to great changes in the current era, academic programs of universities were affected, and consequently Local, regional and international competitions were imposed on these programs, and which the Education Faculties programs is one of them.

Competitiveness between Education Faculties programs has become a clear and pressing issue, which has exposed itself in various forms, Competitiveness has been imposed on these programs to improve their performance and develop their activities and processes, especially in the presence of cross-border education”

As development of Education Faculties programs has become inevitable, therefore, this development must be carried out according to a correct methodology that actualizes total quality goals. There is no doubt that development according to benchmarking approach is one of the most effective ways to reform and improve these programs, because it is based on internal or external benchmarking with the corresponding Educational Foundations programs, this is done in light of clear and specific performance indicators, which results in giving the Egyptian Educational Foundations programs the opportunity to change traditional systems and methods of work, and to move internally and externally towards distinct corresponding programs.

## **2. The Problem of the Study**

University education has become the corner stone for development of nations, and gates of societies towards progress and civilization, however, this rule has become questionable after Arab, universities had moved away from advanced rankings in the world. That led decision-makers to be stuck in many questions and queries about the level of Arab universities and the extent to which they are updated to changes that the world witnesses, in addition to the low quality of its outputs, and the weakness of its academic programs. (Rifaat et al. 2015. 516)

Competition between academic programs in Egyptian universities has increased. Where Education Faculties programs are among them, versus other regional and international academic programs. This was demonstrated through retraction in the performance of some of these programs, and poor outputs in the labor market. The main reason for this is that Education Faculties programs as other programs arose around major challenges posed by globalization; this has led to Weak adaptation with developments and novelties in specialized knowledge and others.

Based upon mentioned above, Education Faculties programs should use different tools and approaches to achieve continuous improvement in all its operations and activities so as to reduce weak performance in its outputs, as well as increasing its competitiveness and performance excellence. To achieve this, there are a number of methods and tools that programs should use in continuous improvement processes, where the most important among these is the benchmarking approach. (Besterfield. 2011)

It is notably mentioned that universities in the developed world are interested in the benchmarking approach. As for the Arab countries, a theoretical framework for benchmarking is not yet complete, and that reflects the reality of practice and application. (Selim; Ibrahim. 2014. 206-207)

In light of all above considerations! Egyptian Education Faculties programs should adopt the benchmarking approach to develop their performance and achieve competitive advantage among their regional and international counterparts. Choosing benchmarking approach among other various quality styles is due to that most quality styles are based upon comparing current situation versus its previous one, whereas benchmarking approach relies upon comparing current situation of the Egyptian Educational Foundations programs with their distinguished counterparts in the field as a whole and which are currently available.

In the light of Educational Foundations programs' contributions in presenting whatever services to all educational sectors through its openness to public education institutions in community as these programs are regarded as a scientific and a cultural focus in the university community. Therefore, there is an urgent need to continuously improve performance of these programs in order to reach the level of competition.

Hence, this study focused on the benchmarking approach, to confirm its role in achieving a competitive advantage for Educational Foundations programs in Egyptian universities.

### 3. Questions of the Study

1. What is the concept and types of benchmarking?
2. What is the justification for choosing the benchmarking approach to achieve the competitive advantage for Egyptian Education Faculties programs?
3. What are the performance indicators of Egyptian Education Faculties programs that can be used when benchmarking with counterpart's programs?
4. What is the suggested model to be used when benchmarking for The Egyptian Education Faculties Programs with its distinct counterparts?
5. What is role of benchmarking in achieving competitive advantage for Egyptian Education Faculties programs?

### 4. Objectives of the Study

1. Recognition of concept and types of benchmarking.
2. Determining the justification for choosing the benchmarking approach to achieve the competitive advantage for Egyptian Education Faculties programs.
3. Identifying the performance indicators of Egyptian Education Faculties programs that can be used when benchmarking with counterpart's programs.
4. Constructing the suggested model to be used when benchmarking The Egyptian Education Faculties Programs with its distinct counterparts.
5. Determining role of benchmarking in achieving competitive advantage for Egyptian Education Faculties programs.

### 5. Importance of the Study

1. This study derives its importance from the conscious awareness of the participatory role, which is Performed by Egyptian Education Faculties Programs in leading the change movement, and contributing to societal reconstruction in the twenty-first century.
2. This study adopts the benchmarking approach, which is the most effective way to develop new ideas and practices, in addition to prepare the Egyptian Education Faculties Programs to avoid deficits and determine the degree of difference between those programs, as well as aspects of Outstanding benchmarks
3. The current study Allows an opportunity for Egyptian Education Faculties Programs to set out - internally and externally- towards their Outstanding Programs.

## 6. Methodology of the Study

The study relies on the descriptive approach in achieving its objectives, answering its questions and handling its scientific axes., and that is because it analyses and explains the reality and phenomenon under study, as well as, it doesn't stop at just gathering, organizing and evaluating information, rather, it analyses and links between its significant points so as to come to conclusions and generalizations about phenomenon under study to help in determining the role of benchmarking in achieving the competitive advantage for Egyptian Educational Foundations Programs.

## 7. Limitations of the Study

1. Objective Limits: The current study focuses on benchmarking as an approach to actualize quality in the performance of Egyptian Education Faculties Programs and thus achieving a competitive advantage for these programs at regional and international levels.
2. Spatial limits: the study was limited to the Egyptian Education Faculties Programs in the faculties of education at Egyptian universities.
3. Time limits: The study examined the benchmarking of Egyptian Education Faculties Programs with the corresponding programs in the light of performance indicators for these programs which were measured during the academic year 2017/2018

## 8. Terms of the Study

### 8.1 Benchmarking

Benchmarking is defined as a tool utilized for evaluation, development and performance improvement through identifying the gap in performance between other units or departments, and Work to reinforce the positive aspects that characterize them, moreover, identifying the negative aspects and work to avoid them so as to achieve the best applications in performance. (Ismail. 2006)

The present study operationally defines benchmarking as "a Systematic and continuous process for evaluating the performance of Egyptian Educational Foundations Programs or one aspect of such performance by comparing a model, inside or outside Egyptian universities, to identify the causes of the gap, go through fixing it and reach the best performance"

### 8.2 Egyptian Education Faculties Programs

These programs are defined as the organization of learning experiences via a number of distinguished courses whence after completing its studies, the program grants the student an academic degree (Bachelor, Master, PhD).

### 8.3 Competitive Advantage

Defined as discovering new ways more effective than that used by competitors where this competitive advantage can actualize that discovery in the field, in other words, creating a creative process in its broad sense (Michael .1993.48)

It is also defined as a distinguishing element for an organization where it can be achieved if it follows a certain competition strategy. (Morsi. 1998. 37)

The competitive advantage in this study can be defined operationally as the methods used by the Egyptian Educational Foundations Programs to outperform corresponding pedagogy programs and achieve for itself excellence and distinction over them.

## 9. Literature Review

1. Study (Hassan. 2016)  
The study aimed to recognize the potentials of benchmarking in university decision making, and to construct a suggested view to use benchmarking as an approach to support university decision-making. It works to support university decision-making and orient the university towards a better future. And to achieve the previous aims, the research utilized the descriptive analytical method. The research came up with several results, mostly important that benchmarking possesses many advantages, potentials and various types that support university decision-making and orients the university towards a better future.
2. Study (Wozniki, et al. 2013)  
The study aimed to present the concepts and results of the benchmarking program for higher education which was operated by the Polish Foundation for University Presidents. And to achieve these aims, the study used External benchmarking on operations, thus, the study came up with several results, including that Polish higher education institutions do not provide mechanisms to prevent duplication of the content in optional courses. In addition, the study emphasized that absence of such mechanism can affect Students' academic achievement and this leads to a lack of financial resources dedicated to education.
3. Study (Jazrawi, et al.)  
The study aimed to make internal and external benchmarking for all programs at Gulf University; In order to prove that these programs work to achieve the mission of the university. The study relied upon the comparative approach, and it proved that some of the programs at Gulf University contribute in an effective way to achieve the mission of the university such as the quantitative accounting program and the English language program.
4. Study (Magutu& et.al.2014)  
The study aimed to describe benchmarking practices in higher education in Kenya, and that is through documenting benchmarking activities in public universities to identify the challenges that these universities confronts in benchmarking. To achieve the study targets, cross-sectional survey was used for gathering data from the six public universities, individuals participated in the study consisted mainly of the chief administrators and faculty staff. One of the most important results of the study is that the continuous improvement systems in Kenyan public universities are good but not excellent, and the three factors that influenced the success of benchmarking were time, available resources and comparability.
5. Study (Rainy. 2010)  
This study aimed to analyze the efficiency of benchmarking via utilizing Data envelopment analysis within university administrations in order to detect ineffective administrative practices, in order to become effective and then go through better learning of good practices. The study revealed a number of indicators associated with ineffective administrations, including the small number of faculty members as well as the sharp weakness in the number of activities and practices of scientific research.
6. Study (MOQ. 2005)

This study aimed to conclude the most important strategies used by the Hong Kong Government in reforming and developing its universities. The study confirmed that the benchmarking strategy helps universities achieve best quality practices in education, through several requirements including: improving the quality of teaching, developing scientific research, implementing the institutional governance, and adopting sustainable professional development systems.

General comment on previous studies:

After reviewing studies and research that are relevant to the current research topic, it turns out that most of them are about benchmarking in university education, most studies have agreed upon the importance of benchmarking in improving the educational process. These studies also showed the necessity of applying benchmarking in identifying shortcomings in the field of university education. The current research differs from previous studies in that it focuses on how to use benchmarking to achieve the competitive advantage of academic programs without an integrative view of all elements of the university system. Current research has benefited from previous studies in covering theoretical framework of the current study.

## 10. Study Procedures

Researchers tried to employ the educational research literature, the available educational data, and some of the theoretical visions that are related to benchmarking, in light of all that, study themes were identified as follows:

### 10.1 The concept of benchmarking

1. It's a process by which practices are analyzed so as to provide a standard measure from the effective performance within the institution through comparing performance with that in other institutions and other sectors. (Higher Education Funding Council for England. 2010. P.2)
2. A systematic Process evaluates performance of the institution or one of its aspects by holding a comparison with the model, either inside or outside of this institution in order to identify the causes of the gap and go through handling it, to achieve the best performance. (Abdel Wahab. 2009. 6).

Based upon above concepts, we find that benchmarking is represented in evaluating a distinct aspect or aspects, to improve performance of the institution, then searching for a model or reference value available within another institution, and finally having the ability to identify the causes of the gap between this institution and the distinct one.

### 10.2 Types of Benchmarking

There are five types of benchmarking approach that can be identified as follows: (Hisham. 2005. 240-241) (Paul A. Grout & Others .2000.12-13)

1. Internal Benchmarking: Comparison is done within the institution between the business units and their different sections, and internal benchmarking is characterized by easy access to data and information.
2. External Benchmarking: The operations or functions of an institution are compared with those of another institution that perform the same or other activity
3. Competitive Benchmarking: It is intended to compare an institution with another institution that is distinct in a particular product or process within the same activity. This type of comparison includes measuring operations, activities and services and comparing them with those of competitors. Then make improvements designed to make the institution

- be the best among its counterparts, or at least better than these competitors.
4. Strategic Benchmarking: This type of benchmarking is used when an institution seeks to improve its overall performance by comparing its long-term strategies with that long-term strategies of distinct institutions, in addition to, comparing its performance styles with those styles that enabled those of distinct performance to succeed.
  5. Functional Benchmarking: It is meant to compare between similar operations within a certain production. Used when the institution would like to use benchmarking with partners from different business sectors or different activity sites to develop jobs or similar operations.

### 10.3 Benchmarking ethics that higher education institutions must adhere to

There is no doubt that information gathering through the process of benchmarking is necessary for development and improvement, which is characteristic in dynamic institutions, so it's necessary that this process must be run carefully and ethically, and that obliges us to recognize the benchmarking ethics, which universities must adhere to when starting the benchmarking procedures.

These ethics include: (Hamza. 2017. 2-3)

1. Commitment and Liability: The (external) benchmarking is based on a contract that includes the rights and duties of each party, and accordingly, each party is committed and responsible for the implementation of this contract.
2. Integrity and transparency: It refers to the clarity of the purpose of using the data during the benchmarking, and most likely that benchmarking aims to upgrade the current position of the Egyptian Educational Foundations programs, as well as, actualizing Competitiveness in similar programs.
3. Honesty and Credibility: In the exchange of data or information referred to in the contract, it's preferable that those data or information are of the same kind between the parties, it's necessary that all parties shall maintain the confidentiality of such information and not to be used for the purpose of distortion or marketing.
4. Mutual Respect: This is achieved by performing appropriate dealings and communications, as well as, respecting the culture of the other and providing information at the agreed time.
5. Containment: means the understanding of each party to the other and of the way by which benchmarking is performed.

## 11. Justifications for Selecting the Benchmarking to Achieve the Competitive Advantage of the Egyptian Education Faculties Programs

### 11.1 The concept of competitive advantage

Competitive advantage refers to the characteristic that distinguishes the institution from other competing institutions and achieves for this institution a strong position towards the different parties. The following table shows the definitions of the competitive advantage addressed by the researchers through different points of view and by focusing on a certain aspect as follows: (Nuri. 2007)

**Table (1):** The concept of competitive advantage

Researcher	the definition	Orientation/Focus
HoFFER	Areas in which the institution is distinguished from its competitors	Activities
FAHEY	Anything that distinguishes the institution or its products positively from its competitors by the perspective of the final customer.	Golden status
ROPPAPORT	The ability of an organization to reduce costs and make a higher profit as	Cost

	compared with its competitors and achieving more customers.	
EVANS	Ability to provide outstanding value to the customer	Customer value

### 11.2 Competitive Advantage Characteristics:

Competitive advantage is characterized by several characteristics, the most important of which are: (Mohsen; Mohammed. 2009. 309)

1. To be continuous in the sense that the institution achieves excellence in the long term and not only in the short term.
2. To possess a group of advantages that distinguishes it from other competitors in different time periods.
3. To be renewable in light of the external environment data at one hand, as well as, in light of the capabilities and resources of the internal environment at the other hand.
4. Be flexible in exchanging competitive advantages by taking into account changes in the external environment.
5. Rationales beyond adopting benchmarking approach by the Egyptian Education Faculties Programs to achieve its competitive advantage:

These rationales are identified by the following: (Rezic & et.al. 2014. P.9).

1. Benchmarking works to make specific improvements in the performance of Education Faculties programs.
2. Benchmarking needs the minimum period of time to achieve change in the performance of Education Faculties programs.
3. Benchmarking helps in identifying effective objective and productive procedures for Education Faculties programs.
4. Benchmarking seeks to achieve excellence for Education Faculties programs, through knowledge, and innovation.
5. Benchmarking takes into account the needs of the beneficiaries of the Education Faculties programs.
6. Benchmarking process facilitates the understanding of competitors from the corresponding Education Faculties programs.
7. Benchmarking motivates the urgent need to improve the working methods within the Education Faculties programs.

## 12. The Importance of Benchmarking in Achieving a Competitive Advantage for Egyptian Educational Foundations Programs

Benchmarking as being one of the techniques that help Education Faculties programs in identifying performance level as compared to the performance of competitors, as well as, a technique for continuous improvement, its importance is highlighted by the benefits it can achieve, which can be identified as follows (Harrington, 1996, 12-14):

1. Helps Education Faculties Programs in identifying accurately the gap between their performance and that of their leading counterparts.
2. Reinforces the desire of the leaders of Education Faculties Programs for adopting a policy of change towards the best.
3. Meet the requirements of the beneficiaries of the Education Faculties Programs.
4. Achieving a real level of productivity of Education Faculties Programs, where productivity is considered a radical solution for problems encountering academic programs in universities.
5. Improving the competitive advantage of Education Faculties Programs, where continuous external and internal search after ideas, as well as, output methods and practices, and then merging all these in plans and programs that Education Faculties programs adopt, gives them way towards the right direction which finally results in achieving the competitive

advantage.

6. Creating external competitive measures which would certainly increase the measurement sufficiency and efficiency of the quality of the internal performance of Education Faculties Programs which makes them more competitive.

### **13. Determining the Performance Indicators of the Egyptian Education Faculties Programs, which can be Used in Benchmarking with the Corresponding Programs**

#### *13.1 The concept of performance indicators and their different steps*

Performance development is the fundamental path for any organization that wants to excel and strive to achieve its strategic objectives. In order to improve its performance, the institution must measure performance through the modern indicators not traditional indicators (Al-Daawi, 2010, p. 9).

The effectiveness of the management of university institutions is linked to the effective measurement of performance through the performance indicators that have been developed in advance to organize the work and tasks, if the university institutions couldn't measure their activity, they will not be able to lead in a good way; and therefore, will be unable to make appropriate decisions.

The application of performance indicators at universities contributes to the availability of data and information related to weaknesses and disadvantages in performance and thus developing programs and plans in order to manipulate these disadvantages. (Mujahid; Anani. 2011. 437)

Performance indicators are defined as the quantitative or qualitative evidence that describes the phenomenon which is needed to be examined in order to reach a given judgment in the light of agreed criteria. (Jalili. 2010. 2)

Performance indicators have several types, including: quantitative indicators, and qualitative indicators where quantitative indicators include: indicators of the human dimension, indicators of information dimension, indicators of financial resources dimension, indicators of physical facilities ...etc., qualitative indicators include: special indicators for students, special indicators for Teachers, and special indicators for community. (Ahmad. 2015. 262)

When preparing university performance indicators, we should follow these steps: (Hamid. 2014. 245-246)

1. Appropriate identification of performance indicators
2. Collect the necessary information
3. Calculate the value in light of the KPI definition
4. Timeline update of performance indicators

#### *13.2 Methodology of selecting KPI of Egyptian Education Faculties Programs:*

The performance indicators for the Education Faculties Programs were selected in light of the importance of these indicators for Education Faculties Programs in the Egyptian universities, taking into account the measurement of these indicators during the two semesters of the academic year. The researcher also studied the indicators included in some standards of the National Authority for Quality Assurance and Accreditation in Egypt. The program accreditation indicators adopted by this body were selected.

The researcher also took into consideration the performance indicators of the operational and strategic plans adopted by many Egyptian colleges of education, thus the number of performance indicators proposed for Egyptian Educational Foundations Programs were completed to reach (21) indices.

#### *13.3 Proposed performance indicators for Egyptian Education Faculties Programs that can be used when benchmarking with corresponding programs:*

In light of mentioned above, the performance indicators for the Egyptian Education Faculties Programs were determined as follows:

1. Ratio of students to teaching staff in Education Faculties Programs
  2. Ratio of teaching staff in Education Faculties Programs who expressed their opinion about the importance of the program mission in the process of decision-making on a 5 point Likert scale in an annual survey.
  3. Percentage of teaching staff and final year student's evaluation for quality range of policies and regulations adopted by the Education Faculties Programs on a 5 point Likert scale in an annual survey.
  4. Percentage of achieving the given objectives in the strategic and operational plans of the Education Faculties Programs.
  5. Number of community educational programs that the Education Faculties Programs offers annually.
  6. Number of programs assigned for caring for both academically distinguished and academically late students, which are provided annually by the Education Faculties Programs.
  7. Presence rate of faculty members in the Education Faculties Programs for providing Academic Counseling to students compared with official working hours per week.
  8. Students' general evaluation of courses quality in the Education Faculties Programs.
  9. Range of appropriateness of Teaching strategies and evaluation methods utilized by faculty members in the Education Faculties Programs on a 5 point Likert scale which is presented to program students in an annual survey.
  10. Rate of Students' evaluation of Academic and professional counseling in the Education Faculties Programs, on a 5 point Likert scale in an annual survey.
  11. The satisfaction rate of employers with performance of program graduates.
  12. The number of electronic courses taught by faculty members in the Education Faculties Programs
  13. Rate of graduates with bachelor's degree in the given time of the Education Faculties Programs.
  14. Rate of faculty members in the Education Faculties Programs Who participated in training programs which was held last year and which was related to the areas of renewable knowledge.
  15. Percentage of annual budget allocated for the Education Faculties Programs.
  16. Percentage of published papers for faculty staff in the Education Faculties Programs according to the classification of the ISI.
  17. Percentage of faculty members who attended academic conferences during last year.
  18. Percentage of faculty members who participated in community services activities during last year.
  19. Rate of faculty staff and Students evaluation of library including specialized references and resources in the field of Educational Programs. on a 5 point Likert scale in an annual survey
  20. Percentage of faculty members in the Education Faculties Programs whose students evaluate their teaching.
  21. Percentage of students in the Education Faculties Programs who were surveyed during the year.
- 14. The Suggested Model for Benchmarking of the Egyptian Education Faculties Programs with its Corresponding Outstanding Programs**

The features of this model are determined by the data and information that was obtained during the

academic year, and that was as follows:

**Table (2):** Suggested benchmarking model

KPI. No. ( )								
Type (1)	Polarity i indicator (2)	Measuring Cycle (3)	Actual Performance (4)	Target performance level (5)	Internal benchmarking (6)	External benchmarking (7)	New Target Performance Level (8)	Direction of indicator (9)
					Baseline (10)	University ( )		
						University ( )		
						University ( )		
<b>Internal benchmarking</b>								
▪ Entity name selected for Internal benchmarking:								
Justification for selecting that source for internal benchmarking:								
▪ How to calculate the level of internal benchmarking:								
Entity for external benchmarking:								
▪ Entity name of External benchmarking:								
Justification for selecting the External benchmarking entity:								
▪ How to calculate the level of External benchmarking:								
<b>Analysis</b>								
▪ Strengths Points:								
▪ Recommendations for improvement:								

- (1) Type: (Input indicator / Process indicator/ Output indicator)
- (2) Polarity of the indicator (negative / positive) where the positive indicates that it is better to increase the value of the indicator, while negative indicates that it is better to reduce the value of the indicator
- (3) Measurement cycle: (annual / quarterly).
- (4) Actual performance level: the actual value available in the previous period to the current report for performance measurement.
- (5) Target performance level: Target value in the current measurement period.
  - Internal benchmarking performance level: the value of indicator as given from the entity selected for internal benchmarking.
  - External benchmarking performance level: the value of indicator as given from the entity selected for External benchmarking.
- (6) New target performance level: the target value after the success of the program in achieving the target performance level.
  - Indicator direction: Clarifies Indicator status whether it refers to Progress (P), Regression (R) or Stability (S) by comparing the actual value of the measurement period to the previous actual value of the indicator.
- (7) Baseline: the actual value of the indicator available in the previous period for the current report of performance measurement.

### 15. Methodology for Selecting External Benchmarking Points for Egyptian Education Faculties Programs:

There are a number of criteria that must be met at universities which include Education Faculties programs. They will be selected as benchmarking entities, as follows:

1. The Program exists in a public university.
2. The number of students in the program is not less than 300 students.
3. The percentage of government funding of the university which includes the program shall not be less than 70% of its annual budget.
4. The university which includes the program must have at least one international ranking in (Times / Shanghai / Webometrics)
5. The program should offer various degrees' (Bachelor - Master - PhD).

These standards may not be available in all benchmarking universities but most of them, and below is an overview of the benchmarking universities in light of the selection criteria:

**Table (3):** Suggested benchmarking model Availability of selection criteria in benchmarking universities (University of the Witwatersrand.2018), (Queen's University.2018), (Ministry of Education.2018)

Criterion		University of the Witwatersrand	Queen's University Belfast	King Saud University
Governmental university		Applicable	Applicable	Applicable
Construction date		1922	1845	1957
Number of students		24621	24000	61704
International Classification In 2019	The Times	201-250	201-250	501-600
	Shanghai	201-300	301-400	151-200
	Webometrics	437	304	415
Year of rinking		2019	2019	2019
Scientific Degrees		3	3	3
Degree of availability of standards		5	5	5

## 16. Results of Benchmarking of the Egyptian Education Faculties Programs

Below we will review the most important results of benchmarking of Egyptian Education Faculties Programs with its corresponding programs in light of the

Previous model, with regards to:

1. Consider only three indicators as examples where the first indicator is an example of input indicators, the second indicator is an example of process indicators while the third indicator is an example of output indicators.
2. Having the Educational Foundations PhD Programs at the Faculty of Education in New Valley University as a model for the programs of the Egyptian Educational Foundations Programs. Because getting the KPI (key performance indicators) values is easy, where this given faculty is the work Place of the researcher.
3. Having the Educational Foundations PhD Programs that belonging to three universities (King Saud University KSU - University of Witwatersrand UW - University of Queens QU) as Comparison points in benchmarking.

**Table (4):** The results of the benchmarking comparison of the Educational Foundations PhD Programs with the corresponding programs in the regional and international universities (KPI.1)

KPI. No. (1) Ratio of number of teaching staff to number of students in Educational Foundations PhD Programs at New Valley University										
Type (1)	Polarity indicator (2)	Measuring Cycle (3)	Actual Performance (4)	Target performance level (5)	Internal benchmarking (6)		External benchmarking (7)		New Target Performance Level (8)	Direction indicator (9)
Input indicator	negative	annual	1:20	1:19	2015	1:24	KSU	1:80	-	Regression (R)
					2016	1:21	UW	1:22		
					2017	1:17	QU	1:23,6		
<b>Internal benchmarking</b>										
<ul style="list-style-type: none"> <li>Entity name of Internal benchmarking: Educational Foundations PhD Programs, Faculty of Education, New Valley University (Self comparison)</li> <li>Justification for selecting the internal benchmarking entity: The statistics of the Educational Foundations PhD Programs at the College of Education in the New Valley at 2018 are selected as a source of benchmarking comparison, because it is the best result achieved by the program for this indicator in the academic year 2017/2018, and which is an internal self-comparison of the program.</li> <li>How to calculate the level of internal benchmarking? The index of the Educational Foundations PhD Programs was calculated by dividing the number of faculty members by the total number of students in the program, using the database of the information unit in the Faculty of Education.</li> </ul>										
<b>External benchmarking</b>										
<ul style="list-style-type: none"> <li>Entities names of External benchmarking: Educational Foundations PhD Programs in Universities (King Saud University, Queen's University, University of the Witwatersrand)</li> <li>Justification for selecting the External benchmarking entities: <ol style="list-style-type: none"> <li>The three universities offer Bachelor's, Master's and Doctoral degrees.</li> <li>The corresponding universities perform the three main functions of the university, which are scientific research, education, and community service.</li> <li>The three universities have an advanced ranking in the three international rankings (The Times - Shanghai - Weibo Markets)</li> <li>King Saud University, as a regional university, obtained institutional accreditation and has more than 43 academic programs accredited internationally and locally. Queen's University Belfast was ranked among the best 180 universities in the world (QS World Rankings) for the year 2019 and the second in the United Kingdom.</li> </ol> </li> <li>How to calculate the level of External benchmarking? The index data for the Educational Foundations PhD Programs in benchmarking universities were calculated by dividing the number of faculty members by the total number of students in each program.</li> </ul>										
<b>Analysis</b>										
<ul style="list-style-type: none"> <li>Strengths Points: <ol style="list-style-type: none"> <li>Ratio of students to teaching staff in Educational Foundations PhD Programs at New Valley University is Getting close to the target ratio in the future plan, which may give it a competitive advantage at the local level.</li> <li>Ratio of students to teaching staff in Educational Foundations PhD Programs at New Valley University is higher than the ratios of students to faculty members at King Saud University, which gives the program a competitive advantage for it at the regional level</li> <li>Ratio of students to teaching staff in Educational Foundations Programs at New Valley University is better than the Universities of Queens and Watersrand, which gives it a competitive advantage at the international level.</li> </ol> </li> <li>Recommendations for improvement: The percentage of faculty members holding a PhD must be increased.</li> </ul>										

**Table (5):** The results of the benchmarking comparison of the Educational Foundations Programs with the corresponding programs in the regional and international universities (KPI.11)

KPI.No. (11) The satisfaction range of employers concerning performance of program graduates.								
Type (1)	Polarity indicator (2)	Measuring Cycle (3)	Actual Performance level (4)	Target performance level (5)	Internal benchmarking (6) Performance level		External benchmarking (7) Performance level	
Output Indicator	positive	Annual	3.7	3.8	2015	3.7	KSU	3.6
					2016	3.8	UW	4
					2017	3.5	QU	4.5
New Target Performance Level (8)								
Direction indicator (9)								
Regression (R)								
<b>Internal benchmarking</b>								
<ul style="list-style-type: none"> <li>Entity name selected for Internal benchmarking: Educational Foundations PhD Programs, Faculty of Education, New Valley University (Self comparison)</li> <li>Justification for selecting this source for internal benchmarking: The statistics of the Educational Foundations PhD Programs at the College of Education in the New Valley at 2018 are selected as a source of benchmarking, because it is an internal self-comparison of the program.</li> <li>How to calculate the level of internal benchmarking? The satisfaction range of employers concerning performance of program graduates was calculated through the results of statistical processing taken from 5 point Likert scale concerning performance of program graduates and which is administered annually.</li> </ul>								
<b>External benchmarking</b>								
<ul style="list-style-type: none"> <li>Entity name of External benchmarking: Educational Foundations PhD Programs in Universities of (King Saud University, Queen's University, University of the Witwatersrand)</li> <li>Justification for selecting this source for External benchmarking: <ol style="list-style-type: none"> <li>The three universities offer Bachelor's, Master's and Doctoral degrees.</li> <li>The corresponding universities perform the three main functions of the university, which are scientific research, education, and community service.</li> <li>The three universities have an advanced ranking in the three international rankings (The Times - Shanghai - Weibo Markets)</li> <li>King Saud University, as a regional university, obtained institutional accreditation and has more than 43 academic programs accredited internationally and locally. Queen's University Belfast was ranked among the best 180 universities in the world (QS World Rankings) for the year 2019 and the second in the United Kingdom.</li> </ol> </li> <li>How to calculate the level of External benchmarking? External benchmarking performance level was calculated through the arithmetic mean of program graduates' performance evaluation given by the employing entities on a 5 point Likert scale.</li> </ul>								
<b>Analysis</b>								
<ul style="list-style-type: none"> <li>Strengths Points: Satisfaction range of employing entities with performance of program graduates was higher than that of Saud university which is an accredited university locally and internationally, as well as, having an enormous number of locally and internationally accredited programs, and that is considered a competitive advantage for the Education Foundation PhD Program in New-Valley university at the regional level.</li> <li>Recommendations for improvement: <ol style="list-style-type: none"> <li>The necessity for the Education Foundation PhD Program in New-Valley to track variables and updates in work market, as well as, community needs.</li> <li>The process of developing skills of students admitted in Education Foundation PhD Program in New-Valley must include polling of concerned entities.</li> </ol> </li> </ul>								

**Table (6):** The results of benchmarking for the Educational Foundations PhD Programs with the corresponding programs in the regional and international universities (KPI.8)

KPI.No. (8) Students general evaluation of courses quality in the Educational Foundations PhD Programs										
Type (1)	Polarity indicator (2)	Measuring Cycle (3)	Actual Performance level (4)	Target performance level (5)	Internal benchmarking performance level (6)		External benchmarking performance level (7)		New Target Performance Level (8)	Direction indicator (9)
Operations Indicator	positive	quarterly	3.8	3.7	2015	3.5	KSU	3.8	-	Progress (P)
					2016	3.5	UW	4.3		
					2017	3.7	QU	4.5		
<b>Internal benchmarking</b>										
<ul style="list-style-type: none"> <li>Entity name selected for Internal benchmarking: Educational Foundations PhD Programs, Faculty of Education, New Valley University (Self comparison)</li> </ul>										
<ul style="list-style-type: none"> <li>Justification for selecting this source for internal benchmarking: The statistics of the Educational Foundations PhD Programs at the College of Education in the New Valley for 2018 are selected as a source of benchmarking comparison, because it is the best result achieved by the program for this indicator in the academic year 2017/2018, and which is an internal self-comparison of the program.</li> </ul>										
<ul style="list-style-type: none"> <li>How to calculate the level of internal benchmarking? The index was calculated through results of the questionnaire prepared for estimating the course by the National Authority for Quality Assurance and Accreditation of education in Egypt, and the average was calculated at the level of all program courses taking into account the relative weight of the average and the difference in students' numbers.</li> </ul>										
<b>External benchmarking</b>										
<ul style="list-style-type: none"> <li>Name of the entity selected for External benchmarking: Educational Foundations PhD Programs in Universities of (King Saud University, Queen's University and University of the Witwatersrand)</li> </ul>										
<ul style="list-style-type: none"> <li>Justification of selecting this source for External benchmarking point: <ol style="list-style-type: none"> <li>The three universities offer Bachelor's, Master's and Doctoral degrees.</li> <li>The corresponding universities perform the three main functions of the university, which are scientific research, education, and community service.</li> <li>The three universities have an advanced ranking in the three international rankings (The Times - Shanghai - Weibo Markets)</li> <li>King Saud University, as a regional university, obtained institutional accreditation and has more than 43 academic programs accredited internationally and locally.</li> <li>Queen's University Belfast was ranked among the best 180 universities in the world (QS World Rankings) for the year 2019 and the second in the United Kingdom.</li> </ol> </li> </ul>										
<ul style="list-style-type: none"> <li>How to calculate the level of External benchmarking? <ol style="list-style-type: none"> <li>For King Saud University, the results were obtained from the questionnaire for students' evaluation of the course which was prepared by the National Center for Education and Accreditation Evaluation.</li> <li>For the Universities of Queens and the Witwatersrand, the results were obtained from a measure dedicated to evaluating the quality of teaching by students, and the results of this measure were included in the strategic plan for each of them.</li> </ol> </li> </ul>										
<b>Analysis</b>										
<ul style="list-style-type: none"> <li>Strengths Points: <ol style="list-style-type: none"> <li>Range of Students' evaluation of courses quality in the Educational Foundations PhD Programs is Higher than the internal benchmarking result.</li> <li>Range of Students' evaluation of courses quality in the Educational Foundations PhD Programs is Equal to the result of the external benchmarking, as the case in King Saud University, which gives the program a competitive advantage at the regional level.</li> </ol> </li> </ul>										
<ul style="list-style-type: none"> <li>Recommendations for improvement: <ol style="list-style-type: none"> <li>The number of electronic courses in the program must be increased.</li> <li>More deal of functioning technology should take place when teaching those program students.</li> <li>Results and theories of scientific research which are related to the field of Educational Foundations Programs should be included in Program courses being taught.</li> </ol> </li> </ul>										

## 17. The Role of Benchmarking in Achieving the Competitive Advantage of the Egyptian Education Faculties Programs

### 17.1 The role of benchmarking in the competitive analysis process:

We would like to stress upon the fact that; if Leading institutions wishes stability and continuity, as well as, achieving excellence and creativity, they must work constantly to improve their performance as compared to the performance of competitors and the performance of the leading institutions in the field of work.

Since benchmarking is one of the methods that helps in pointing out the performance level of Egyptian Education Faculties Programs as compared to its competitors' performance and since it's a strategy of continuous improvement, therefore, its importance in achieving the competitive advantage is highlighted through a number of benefits which can be identified as follows: (Ministry of Education. 2015. 46)

1. Provide an opportunity for the institution - internally and externally - to use the best models.
2. Improve the creative and innovative capabilities of the team.
3. Accurate identification of the gap between its performance and the performance of leading institutions in its field of work.
4. Adopt a policy of change towards whatever is better and new.
5. Development of individual and group creativity
6. Achieve additional benefits for the institution.

The competitive analysis process is measured by Benchmarking, so as to measure the level of the university as compared with competing universities as for benchmarking is an effective tool for measuring this institution's position in relation to other leading institutions.

### 17.2 The competitive position of the Education Faculties programs when both, applying and not applying the benchmarking:

The institutions' view of benchmarking differs. Some of them apply this practice in a continuous and high-quality, while others ignore the importance of benchmarking and so, do not benefit of such application.

The following table shows a comparison between performances of the Egyptian Education Faculties Programs with and without benchmarking,

**Table No. (7):** Comparing the performance of the Egyptian Education Faculties Programs with and without benchmarking

With benchmarking	Without benchmarking
Competitive Approach	
External focus on competition	Internal focus on competition
Accepting new ideas and methods	Slow change
High commitment	Low commitment
Employ best practices	
New ideas	No inventions
Horizontal expansion inside other activities	Limited visibility
Great Potentials	Self-imposed limitations
Knowing the beneficiary requirements	
Based on facts and research	Based on history or intuition
Continuous search for recent trends	Lack of attention to recent trends
Improve productivity	
Continuous improvement	Suffice to the current situation
Development initiatives	Resistance of new initiatives

17.3 *Procedural steps to activate the role of benchmarking in achieving the competitive advantage of the Egyptian Education Faculties Programs*

*First Step:* Study the position of Education Faculties Programs through applying benchmarking.

*Second Step:* Form a committee within each program to supervise the application of the benchmarking.

*Third Step:* Follow-up performance inside and outside each subprogram of Education Faculties programs.

*Fourth Step:* Identify services or cases in need of development.

*Fifth Step:* Selection of the performance indicators to be compared in benchmarking.

*Sixth Step:* Identify leading programs within the given field.

*Seventh step:* Study good practices performed by distinguished Education Faculties programs.

*Eighth step:* Implementation of good practices along with setting out executive schedules.

*Ninth Step:* Evaluating results and setting up improvement plans.

*Tenth Step:* Repeat the implementation of previous steps for improvement and development.

*Eleventh step:* Aggrandizing competitively of Educational foundations programs locally, regionally and internationally.

17.4 *The integrative relationship between benchmarking and performance indicators along with its role in diagnosing some features of the competitive reality for the Egyptian Education Faculties Programs:*

In light of the benchmarking model proposed by this study, and in light of the results included in this model concerning performance indicators of the Education Faculties programs versus that of the corresponding programs in regional and international universities, in addition to, Considering that the Educational Foundations PhD Program at the New Valley University is a representative of the Egyptian Education Faculties Programs, therefore the role of the integrative relationship between the benchmarking and performance indicators can be clarified in diagnosing a part of the features of the competitive reality for the Egyptian Education Faculties Programs, as follows

**Table No. (8):** Some features of the competitive reality of the Educational Foundations PhD Program in the New Valley University at three levels (local - regional - international)

Index number	Index content	Index type	Competitive advantage		Benchmarking entities
			the level	Availability	
KPI. 1	Ratio of students to teaching staff	Inputs	Local	Available	Egyptian Educational Foundations PhD Programs
			Regional	Available	King Saud University
			International	Available	Queen's University - University of the Witwatersrand
KPI. 8	The satisfaction range of employers regarding performance of program graduates.	outputs	Local	Available	Egyptian Educational Foundations PhD Programs
			Regional	Available	King Saud University
			International	Not Available	Queen's University - University of the Witwatersrand
KPI. 11	Students' evaluation of courses quality in the Educational Foundations Programs	Processes	Local	Available	Egyptian Educational Foundations PhD Programs
			Regional	Available	King Saud University
			International	Not Available	Queen's University - University of the Witwatersrand

## 18. Recommendations Related to Activating the Role of Benchmarking in Achieving the Competitive Advantage of the Egyptian Education Faculties Program

1. Announcing the goals of benchmarking project for all members of the Egyptian Education Faculties Program.
2. Creating a cultural environment in the Egyptian Education Faculties Program which accepts methods and setting styles of Benchmarking.
3. Existence of an administrative leadership for Egyptian Education Faculties Program that believes in, is committed with and supports benchmarking.
4. Willingness to accept new ideas from benchmarking entities.
5. Honoring the successful benchmarking teams in the Egyptian Education Faculties Programs.
6. Encouraging the benchmarking teams to visit the leading Egyptian Education Faculties Programs in order to keep in touch with the best practices.
7. The appropriate financial support for settling the Benchmarking agreements with the distinguished programs.
8. Accelerate the preparation and implementation of benchmarking to keep pace with changes that may occur in the external environment.

## References

- Ahmad, Adnan (2015). Performance Indicators Measuring Performance in University Education Analytical Study in light of the Principles of Academic Accreditation. Educational Sciences, Cairo University. Graduate School of Education, Vol 23, P 3, 249-299.
- King Saud University (2018). Directory of Academic Program Performance Indicators. Faculty of Education. Quality Assurance and Accreditation Unit.
- Jalili, Riyadh (2010). Indicators of educational systems, a periodical series on development issues in the Arab countries, No. 76, ninth year, the Arab Institute for Planning, Kuwait.
- Hamed, Jabal (2014). Using e-management to improve university performance indicators. Faculty of Education. Tanta University, 210-267.
- Hassan, Mt., (2016) Entrance reference comparisons to support university decision-making. Arab studies in education and psychology. Association of Arab Educators, 461-500.
- Hamza, Ghada (2017). Performance Indicators and Benchmarking Guide. Deanship of Academic Development and Quality. King Khalid University.
- Al-Dawi, Al-Shaikh (2010). Analysis of the theoretical foundations of the concept of performance, Journal of the researcher, No. 7, Algeria.
- Refaat, Mohamed, Sobhi, Saber& Abdel Fattah, Aisha (2015). Applied Models of the Best Comparative Measurement Method for Improving the Performance of Educational Institutions "Open Learning Centers as a Model. Cairo University. Faculty of Education Studies, 513-542.
- Samuel, Michael (2010). An analytical study of the use of benchmarking with competitors as a complementary tool for total quality in order to manage cost and achieve competitive advantage for the enterprise. Journal of Business Administration, No. 129, 102-107.
- Abdul Majeed, Nizar& Kamel, Samir. (2005). The Effect of Benchmarking on Organizational Performance: A Case Study with a Proposed Model ". Journal of Industrial Cooperation, No. 25, 6-44.
- Ali, Fatima (2011). "Comparative Reference Approach to Improving Institutional Performance in Public Organizations: An Empirical Study on the Higher Council for Science and Technology". Mutah Research and Studies. Humanities and Social Sciences, Vol. 26, No. 7, 109-164.
- Fahid, Ghadeer (2012). Developing postgraduate educational programs at Imam Muhammad bin Saud Islamic University in the light of academic accreditation standards. Master Thesis. Faculty of Social Sciences. Department of Management and Educational Planning.
- Mujahid, Atwa& Anani, Fattouh (2011). Quality Strategies in Education, Alexandria, New University House.
- Mujbil, Ismail (2006). The effectiveness of benchmarking in evaluating performance and its applicability in Iraqi non-profit economic units. Journal of Management and Economics. Mustansiriyah University.

- Mohsen, Taher & Mohammed, Wael. (2009). Strategic Management An integrated systematic perspective. Jordan. Amman. Wael Publishing & Printing House.
- Mohamed, Samir (2009). The International Conference on Administrative Development Towards a Distinguished Performance in Government Performance. Saudi Arabia. Institute of Public Administration, (1-4 April).
- Morsi, Nabil (1998). Competitive advantage in business. Egypt. Alexandria Center.
- Munir, Nouri (2007). Performance evaluation as an effective tool to value human skills in the economic institution and its importance in keeping with economic competitiveness". Intervention at the International Forum "Human Development: A Factor for Economic Competitiveness and Social Promotion". Held at the University of Moulay Ismail, Faculty of Legal, Economic and Social Sciences. Meknes. The Kingdom of Morocco. From 21 to 22 November.
- Musa, Ahmed (2010). Building and developing a culture of total quality to improve the performance of Egyptian universities (comparative measurement approach). Unpublished Ph.D. dissertation. University. Commerce College. al-manoufia University. Egypt.
- Hisham, Ahmed. (2005). The use of Benchmarking comparative measurement method for cost management in support of the competitiveness of the enterprise. the Egyptian commercial studies. Commerce College. Mansoura University. Egypt, Vol. 2. Second Issue, 240-241
- Ministry of Education. Princess Nora University (2015), Performance Indicators and Benchmarking Guide. Deanship of Quality and Development.
- Barak, R & .Kniker, C. (2002). Benchmarking by State Higher Education Boards. New Directions for Higher Education ,N.118,93-118
- Besterfeild, D. (2003). Total Quality Management. (Translated by Rashid Hammali). Scientific Publishing and printing presses. King Saud University. Riyadh.
- Harrington, H & .et al. (1996). High Performance Benchmarking: 20 Steps to Success .McGraw- Hill. New York.
- Higher Education Funding Council for England (2010). Benchmarking to Improve Efficiency. UK: Higher Education Statistics Agency.
- Jackson, N & .Lund, H. (2000). Benchmarking for Higher Education. Society for Research in Higher Education. Open University Press. London.
- Magutu, P.O. & et al. (2014) a Survey of Benchmarking Practices in Higher Education in Kenya: The Case of Public Universities. IBIMABusiness Review, Vol.2011 (2011), August ,1-20
- Marshall, S & .et al. (2007). Benchmarking for Quality Improvement the E-Learning Maturity Model. Proceedings Asclite. Singapore.
- Ministry of Education (2018) Higher Education, Deputy for Planning and Information Affairs". Archived from the original on 30 March.
- Mok, K. (2005). The Quest for World Class University: Quality Assurance and International Benchmarking in Hong Kong. Quality Assurance in Education ,13(4):277-304.
- Paul A. Grout et al. (2000). Benchmarking and Incentive in the NHS. Centre for Market and Public Organization. University of Bristol. London, May. 12-13.
- Michael E, Porter, (1993). Competitive Advantage of Nations. Inter Edition.
- Queen's University (2018). Enrolment". Office of Planning & Budgeting. Retrieved 4 May.
- Rayeni, M. & Saljooghi, F. (2010) Benchmarking in the Academic Data Envelopment Analysis: American Journal of Applied Sciences, 7 (11), 1464-1469.
- Rezic, S. & et al. (2014). Benchmarking as A Tool for Improvement of Higher Education Performance, Benchmarking Handbook for the Universities of BIH, Tempus Project
- University of Alicante. (2013). Benchmarking of Quality Assurance in Higher Education: Experiences from the FOCUS Project, Spain: The University of Alicante International Project Management Office.
- University of the Witwatersrand (2018). Johannesburg FACTS & FIGURES 2017/2018, retrieved 4 August.
- Woznicki J. & et al, (2013) Benchmarking in Higher Education, International Conference on Technology Innovation and Industrial of Management. Thailand: TIIM, May (29-31). 42-53.