

The Impact of the Adoption of the Benchmarking Method in Assessing the University Performance: A Case Study of AL-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University

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ABSTRACT

This study aims at analyzing the impact of the adoption of the benchmarking method in assessing the university performance: a case study of Al-Zarqa and Al-Aqaba colleges in Al-Balqa Applied University. To achieve this goal, the researcher designed a questionnaire included five elements of benchmarking and the university performance variable and consisted of (68) items. The tool's reliability was tested. The questionnaire was applied to the sample study of (38) faculty members randomly selected of these two colleges out of (128) faculty members using the random sample method with a percentage of (30%). The study reached a number of results, including:

a- There are statistically significant differences at the significance level ($\alpha = 0.05$), between responses of faculty members at Al-Zarqa and Al-Aqaba colleges of Al-Balqa Applied University about the adoption of the benchmarking method in terms of its elements represented by (academic course, study plan, exams, and results). However there were no statistically significant differences at the mentioned level, between responses of faculty members at both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the adoption of the benchmarking method of two elements which are (faculty members, and class behavior).

b- There is a statistically significant impact at the significance level ($\alpha = 0.05$), to adopt the benchmarking approach in assessing the University performance in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University.

Keywords : Benchmarking method, University performance, Study plan, Class behavior

1- Introduction:

The concept of benchmarking began in the early 1990s with the aim of improving the quality of products and services and the accompanying improvement in production processes in light of the fierce competition in the international markets. Many organizations have tried to adopt this concept by focusing on customers, encouraging staff participation and integration, developing team spirit and relying on the principle of continuous improvement Berwari, (2001)⁽¹⁾.

In the same direction, the organizations found that their ability to survive and remain dependent on their ability to learn and shift in their strategy and policy to reflect positively on their performance, which prompted them to search for new ways and methods to improve their performance. The reference comparison was the best solution as a philosophy and a modern method of learning from others towards the continuous improvement of performance. The study was an attempt to clarify the role of effective reference comparison in the processes of developing higher education outputs in Jordanian universities Al Khatib, (2002)⁽²⁾.

Therefore, the administrators of the universities need assurances to assured the quality of the educational process. Quality may not be sufficient in the educational process, but they are nevertheless looking for excellence and creativity, because the need for academic competition goes beyond the concept of quality. It reaches the stage of seeking excellence and creativity in many disciplines, administratively, academically, researchers and students, and that the success of the educational process depends on the success of the three joints: management, members of the training staff, and students Al-Fatalawi, (2006)⁽³⁾.

The lack of conventional cost systems in meeting the needs of organizations, although accurate in determining internal performance standards, necessitated a review of their performance improvement against the performance of the competing organizations. All this has led to the emergence of new strategic cost management trends, all of which aim to achieve a value for the customer, including Benchmarking, Which is one of the most important methods in achieving the objectives of the economic and operational unit and strategy, being an internal performance standards as well as a method of continuous improvement Zaalán, (2004)⁽⁴⁾.

The researcher believes that the criterion of success for all organizations is to provide the best goods and services at the lowest costs based on the conviction that university education is the real social security of any society and the main element for achieving its goals. There was a need to reform higher education, so this research came with a sample of institutions of higher education, and relying on modern methods of study and analysis.

1. The Framework of the Study:

1.2 The Problem and Questions of the Study:

The method of benchmarking draws the attention of the writers, researchers and those concerned with the affairs of the organizations and their development to meet the challenges, especially those related to the development of university performance, and the search for ways to help deal with the change in the surrounding environment and to deal with this change of adaptation and survival and planning for the future. Therefore, the higher education institutions rely on internal performance standards to measure the quality of their performance without taking into account the level of knowledge of its performance for the competing units of the fundamental problems experienced by many educational institutions, which lead to the failure to achieve its objectives or achieve excellence and creativity.

So the problem of the study lies in answering the following questions:

- a. What is the level of adoption of the benchmarking elements in Al-Zarqa and Aqaba Colleges at Al-Balqa Applied University from the point of view of faculty members?
- b. What is the level of evaluation of the university performance of Al-Zarqa and Aqaba Colleges at Al-Balqa Applied University from the point of view of faculty members?
- c. Are there differences between the responses of the study sample members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the adoption of the method of benchmarking with its components (faculty members, course, classroom behavior, study plan, exams and results)?
- d. Is there a significant effect to adopt the method of benchmarking in the evaluation of the University performance of the College of Al-Zarqa and Al-Aqaba of Al-Balqa Applied University?

2.2 The Importance of the Study:

The importance of the research is as follows:

- a. The modernity of the subject of benchmarking, and the scarcity of its application at the local and Arab levels.
- b. To supplement the Jordanian and Arab libraries with a modest research contribution that constitutes a knowledge addition.

- c. The importance that the university occupies as it is an essential element of the country's renaissance and progress, and the factor in the advancement of its effective and influential role in the development of the country's cultural life in its different dimensions, whether scientific, literary, intellectual or technological.

2.3 The Objectives of the Study:

The study aims at identifying the effect of adopting the method of benchmarking in the evaluation of university performance at Al-Balqa Applied University. The researcher sought to achieve the following sub-objectives:

- a. Seeking to develop and deepen this knowledge through scientific research and the accompanying research and studies, as a result of the application of comparative comparison method to see performance indicators.
- b. Identifying the differences between the responses of faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on adopting the reference comparison method.
- c. Measuring the effect of adopting the benchmarking method in assessing the academic performance of the Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University.
- d. Providing a set of suggestions and recommendations for the inquiry of the faculties.

2.4 Hypotheses of the Study:

To achieve the objectives of the study, the researcher suggested one hypothesis with a number of sub-hypotheses written in the form of zero hypothesis (H_0) and as follows:

The Main Hypothesis of the Study:

H0: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in Al-Zarqa and Aqaba colleges at Al-Balqa Applied University on the adoption of the method of benchmarking elements (faculty members, the course, classroom behavior, study plan, exams and results).

The main hypothesis is based on five sub-hypotheses:

H01: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both Al-Zarqa and Aqaba colleges' levels at Al-Balqa Applied University about the component (faculty members).

H02: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both Al-Zarqa and Aqaba colleges' classes at Al-Balqa Applied University about the component (course).

H03: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both Al-Zarqa and Aqaba colleges at Al-Balqa Applied University about the element (descriptive behavior).

H04: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty member

in both Al-Zarqa and Aqaba colleges at Al-Balqa Applied University about the component of the study plan.

H05: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both the blue Al-Zarqa and Aqaba colleges at Al-Balqa Applied University about the component (exams and results).

2. Theoretical framework and Literature Review:

2.1 Theoretical and Intellectual Framework:

2.1.1 The Concept of Reference Comparison:

The concept of benchmarking has attracted the interest of many writers and researchers as a relatively recent term in administrative studies, which led many of them to deal with and analyze. Differences are expressed in the expression of this term, some of which are called (Tool) and others call it (Method). A third group considers (Manner), and a fourth group sees the comparison as (Process), despite these verbal differences, there is almost agreement on the intended meaning and utility of the application Khatib, (2002)⁽⁵⁾.

Kreither and Kinicki, (2004)⁽⁶⁾ defined it as "the process by which the organization's performance is compared to those of other competitive organizations with outstanding performance."

Abdel Wahab, (2010)⁽⁷⁾ defined as a technique and structured method of learning from others and bringing knowledge from them, by observing the outstanding performance models that may be available within the organization or other organizations that have gained experience in certain areas of work and which can be compared in a legitimate manner.

Blocher and others (2002)⁽⁸⁾ suggest that benchmarking is "the process by which critical success factors in economic units are diagnosed by studying the best applications of other economic units (or subdivisions within the same economic unit), in order to reach the factors that are important for success, and then implement improvements to unit operations to meet or face the performance of the main competitors.

Khatib, (20013)⁽⁹⁾ sees benchmarking as a "management tool requires senior management of the organization tendencies to adopt successful change processes for simulating producers and management practices in those organizations, with more successful organizations, with a view to formulating ideas or adoption of new applications to improve performance." In this regard, the adoption of benchmarking organizations was not an administrative or organizational luxury, but rather a response to the changes necessitated by the internal and external environment conditions, the most important of which was the intensity of competition

which led the organizations to seek new tools and tools to respond quickly to environmental changes.

3.1.2 Benchmarking Types:

Benchmarking types can be classified into two main categories:

a. Internal Benchmarking:

Is the starting point for many economic units, and internal benchmarking is made between the sub-units or work fields within the same economic unit that reveal the best areas of application within the unit, and this type of benchmarking is characterized by being easy to work and less expensive, In an organization with multiple branches or factories, the performance of a branch (or organizational units) is compared with another branch or specific sections of that branch or plant Brillman, (2001)⁽¹⁰⁾.

b. External Benchmarking:

External benchmarking includes within the best competitors and across competitors, with any other organizations pioneering work in the field of work of the organization itself or another area. The advantages they bring openness to other people's experiences and successes that can be on the comparison with the organizations engaged in the same activity or sell the same item Zaalán, (2004)⁽¹¹⁾ and it include:

1- Competitive Benchmarking: It is based on direct benchmarking with best competitors to achieve better performance levels. It is also called Performance Benchmarking, which is used to compare products, services, technology, personnel, quality, pricing, and other areas reflected in performance, Koh et al., (2011)⁽¹²⁾.

2- Functional Benchmarking: Also referred to as process benchmarking, they include a particular functional comparison (marketing, human resources) or a particular process (staff training, storage methods), as in other organizations (2001)⁽¹³⁾. Comparisons may be made with organizations working in the same or in other areas. For example, hospital reception is compared with a hospital reception.

3- Strategic Benchmarking: A process of review and examination of how to compete with organizations, and search for the best strategies that lead to success in the market and achieve competitive advantage. The strategic benchmarking is important in reducing the time and costs required to develop new processes and improve the efficiency of existing operations. This strategy has been implemented by many leading companies, notably (At&t), a way to identify what others are doing to make use of what is new as they do, with development and adaptation to our circumstances and environment Ross, (2005)⁽¹⁴⁾.

3.1.3 The Importance of Benchmarking:

Al-Atraqji, (2002)⁽¹⁵⁾ identified the importance of the reference comparison by:

- 1- Helping the organization to accurately determine the gap between its performance and performance of the excess units.
- 2- Helping to provide the appropriate environment and enhance the desire of the leadership of the institution and its employees to adopt a policy of change towards everything that is better and new.
- 3- Helping to identifying critical processes and give them attention and priority in implementation.
- 4- Contributing actively to the development of individual and collective creativity.
- 5- Provide the institution with the means to enable it while at the same time addressing the defect points.
- 6- Effectively contributing to increasing the likelihood of additional benefits for the unit.
- 7- The external focus of the benchmarking method creates external competitive metrics that necessarily increase the efficiency and effectiveness of internal performance measures and make them more competitive.

3.1.4 Benchmarking Steps:

The Robert Camp model is one of the most important models used to apply the benchmarking method, Robert Camp, director of distribution at Xerox, based on his experience in applying the Xerox benchmarking, has identified five major sequential steps to successfully apply the benchmarking method Blaska and Mazini, (2013)⁽¹⁶⁾:

- 1- Planning: A comparison team will be formed to identify the information to be compared. In this light, the partner to be compared with will be selected. At this stage, the type and methods of gathering information is necessary for the success of the comparison process, as well as how to measure the performance of each partner in this comparison.
- 2- Analysis: That is to understand fully and in depth the current operations of the organization, as well as the processes of the partner in comparison, then determine the size, type and reasons of the gap in the organization, what factors exceed the partner in the processes covered by the comparison, and finally extrapolate future performance levels.
- 3- Integration: At this stage, an operational program is developed for the purpose of identifying areas requiring change, ensuring that the program is accepted by all employees, and identifying the roles, resources and means to achieve a better level of performance.
- 4- Implementation: Effective implementation begins by translating the previous steps into actions and procedures, the most important of which are: to modify, develop and apply the best practices acquired by the partner, as appropriate to the organization's environment, and to monitor results and progress.

- 5- Maturation: This is achieved when they fused the best methods transferred from the partner to the organization melt into the process, which have been transferred from the partner into the organization, resulting in addressing the negative gap leading to better performance for the organization as a whole.

3.1.5 The Concept of Evaluating University Performance:

The concept of performance is an old practice whose concepts have been formed for long time. It is a means to study the ability of an organization to achieve its objectives and achieve what is required of it within a certain period. Performance evaluation should not be viewed as an independent process. It is a stage of the administrative process, and evaluation is part of the oversight function of the organization Dabbagh, (2001)⁽¹⁷⁾.

The researchers divide the term performance evaluation into its basic components, evaluation and performance. They define these concepts individually. The evaluation is defined as assessment and appreciation. Performance is the degree to which the organization achieves performance objectives Abidi, Dabbas, (2007)⁽¹⁸⁾.

The process of evaluating performance has been defined by Al-Hetti (2016)⁽¹⁹⁾ as the structured process of collecting and analyzing information, in order to determine the degree to which objectives are achieved and decisions taken, and to address vulnerabilities and enhance the strengths.

Nasrallah (2013)⁽²⁰⁾ defined performance as the process of measuring employee competence, their validity, achievements and behavior in their current work, to identify their ability to assume their current responsibilities and their willingness to hold higher positions in the future.

Al-Dabbagh (2001)⁽²¹⁾ believes that the job evaluation function is an important policy and procedure that is used to raise the level of performance of employees, in addition to identifying their strengths and weaknesses in order to address weaknesses and develop strengths towards greater productivity and positive behavior. The basic criterion for measuring the efficiency or effectiveness of university administration is still based on performance assessment, whether for individuals, college administration, or university administration. The new universities have suggested that the process of assessing performance in university administration according to specific scientific indicators is one of its priorities.

The process of measuring and evaluating the performance of the university has undergone rapid developments after the middle of the twentieth century. The procedures have been complicated and its methods have become more numerous. It is no wonder then that this objective means of moving from the world of industry to the world of study, especially the world of

university study, so the educational situation must be accompanied by continuous attempts to know its effectiveness, and show the extent to which the objectives achieved by the situation and the program as a whole Tuij, (2002)⁽²²⁾.

The evaluation in the educational process is to determine the effectiveness of this process, meaning that the evaluation is concerned with all aspects of the educational process, it cares about the student, the faculty member, and the possibilities and procedures, and in the manner and method and everything that is part of the body of the Integrated System. It is agreed that if the educational situation and teaching plans are structured in the light of clear and specific behavioral goals that describe the results of the required education, then the evaluation process becomes an integral part of this process Mutawa, (2002)⁽²³⁾.

Tuij (2002)⁽²⁴⁾ believes that the objectives of performance evaluation in the educational process include the following:

1- Measuring the student's ability: The principle of evaluation the student's failure in his study in the past is attributed to laziness, lack of seriousness, or to the inadequacy of the information that he has. However, the modern view of the calendar measures the student's relative ability to do what the educational process requires.

2- Measurement of Achievement: Most efforts are concentrated in one fundamental matter: assessing the amount of information students have received in different subjects until recently, efforts were focused on evaluating students' information in grades only. With the provision of means of assessment, the tests of student achievement can include knowledge of the relative value of collection in different training halls and for different universities and even for different educational systems.

3- Diagnosis of the student's weaknesses: There are other benefits to the achievement tests, which have been implemented in almost all universities, namely, to identify the student's weaknesses in one or more scientific aspects. A student may have evidence that he or she has incorrect school habits and may be a student who does not know that there are certain things to memorize, while others need to be aware of. If understanding is required for certain types of facts and principles, principles do not work in the education process. The reasons for weakness may be negligence or inability of the student to know the important elements in the article about others, as well as there is the inability to analyze, structure and the facts in a problem.

4- Diagnosis of the results of the teaching process: From the educational point of view,

measuring the results of the teaching process seems valuable in the opportunities to improve the process

5- itself, because the mere diagnosis of defects of students alone is not enough. Many student weaknesses are the result of sterile teaching methods, and faculty members should know that a well-prepared exam may be a double-edged sword. It may indicate a poor level of students, and weaknesses may be proven or impaired personally.

6- Guidance to the optimal method of teaching: A faculty member at the beginning of his practice can use the examinations that his colleagues put to guide him to the correct habits of teaching. He may analyze and install the exam and teaching methods that came in the exam, and how he can modify the teaching method to bring his students to success. From this we conclude that the examinations themselves can be one of the means by which a faculty member can assess himself and his teaching style.

7- Finding motivation: Motivation plays a vital role in moving the individual towards the target. There is no doubt that the incentive to study is a great educational value. The ideal of all theories of modern education is that which is generated in the depths of the same student when he realizes the value of the thing he is studying.

The complexity of the society in which we live today and the ramifications of modern civilization necessitates that our universities emphasize the importance of distant or indirect goals. These are the goals on which the happiness and well-being of young people depends. This means that we must resort to various internal and external means to encourage the study of everything related to these long-term goals.

Therefore, the researcher sought in this study to clarify the effect of adopting the method of benchmarking in the evaluation of university performance and the preparation of a system to evaluate the university performance to reach an ideal picture that reflects the study variables.

3.2 Literature Review:

A study **Blasque and Mazini, (2013)⁽²⁵⁾** entitled: the contribution of benchmarking in the leadership and evaluation of the performance of **enterprises (A comparative study between Hodna and Almarai)**.

The study aims at defining the contribution of the benchmarking in the leadership and evaluation of the performance of **enterprises** by comparing between the Al-Hadna Foundation of Algeria and Al-Marai Saudi Foundation, which are working in the same activity to identify the impact of these comparisons in the continuous improvement of their production processes to achieve this goal. The study concluded that the method of benchmarking, which is one of the methods of continuous improvement, should be implemented by leading and evaluating the performance of **enterprises** based on certain criteria which constitute overall performance.

Study **Alqudah and Nabulsi, (2012)⁽²⁶⁾** entitled: The impact of benchmarking in achieving the comprehensive quality standards in the Jordanian public universities. This study aims at identifying the role of adopting the benchmarking concept in achieving the overall quality standards and improving the level of performance through comparisons with the best practices to identify the impact of these comparisons in the continuous improvement of their production processes to achieve this goal. The benchmarking method works to achieve quality standards in the Jordanian public universities and improves their outputs. The benchmarking process also leads to the identification of the gap between the current performance of the universities and the expected performance, while identifying the causes of the gap.

Study **Aldomi, (2008)⁽²⁷⁾** entitled: The role of benchmarking in achieving the competitive dimension.

The study aims at identifying the benchmarking in achieving the competitive dimension by comparing the Najaf Al-Sharqi Cement and the New Kufa Cement Factory in the Republic of Iraq to identify the effect of the comparison in the continuous improvement of its production processes to achieve this objective. The researcher used the descriptive approach, which depends on the interpretation of the data associated with the comparison, and the study reached the need to adopt the method of reference comparison in the measurement and evaluation of the company in general by looking at the performance levels of the outstanding companies, conducting internal comparisons with the production years and comparing them with other companies.

A study **Ismail, (2007)⁽²⁸⁾** entitled: The effectiveness of reference comparison in the evaluation of performance and its applicability in non-profit Iraqi economic units.

The study aims at identifying the effectiveness of the benchmarking in evaluating the performance of the economic units and the extent to which the reference comparison can be applied in the non-profit Iraqi economic units. The study was conducted on a sample of Iraqi non-profit economic units at the Technical Institute of Architecture and the Najaf Technical Institute. The researcher used the descriptive method in the theoretical, analytical and practical aspects. The study concluded that the economic units should be interested in applying the method of benchmarking, which is a method of improvement and continuous development, through some necessary procedures for restructuring, organization and assigning associations to develop and measure the level of services and products provided to facilitate the application of the reference comparison.

A study **Al-Mutairi, (2012)⁽²⁹⁾** entitled: The extent to which managers understand the method of benchmarking in e-business and its impact on

achieving competitive advantage among Kuwaiti commercial banks.

The study also aims at identifying the extent to which managers understand the method of benchmarking in e-business and its impact on achieving competitive advantage among Kuwaiti commercial banks. The researcher used the descriptive and analytical approach and relied on a questionnaire in collecting data from a sample of 196 senior managers in all Kuwaiti banks. The study reached several conclusions, the most important of which is that managers in Kuwaiti banks understand the method of reference comparison in e-business and realize that this method is one of the important tools that lead to competitive superiority in e-business with some differences in results according to the variable of scientific qualification.

A study **Anderson & Moen, (2006)⁽³⁰⁾** entitled: Integrated Benchmarking and Poor Quality Cost Measurement for Assisting the Quality Management Work.

This study deals with the concept of comparative comparison from different aspects to give the basic concept about what benchmarking, how it works, and what it can give in the terms of the results of improvement. Emphasis was placed on clarifying how the comparative study and the various risks that could be addressed could be implemented. The study came to answer the question: "Does the benchmark work?" And through the use of a questionnaire survey, which was distributed to more than 500 organizations across the United States and Europe. The results confirmed the assumption that the results of the benchmarking vary from one organization to another and from one case to another. The study also found that there is a positive correlation between the existence of a benchmarking program and financial savings, a positive correlation between support for management comparison and greater understanding in the organization and a catalyst for continuous improvement.

A study **Putkiranta, (2012)⁽³¹⁾** entitled: Reference Comparison: An Extended Study. Benchmarking: A longitudinal study.

This study aims at identifying the effect of using benchmarking as a measurement tool in manufacturing companies in Finland. The study was conducted through longitudinally interviewed with a total of 23 companies in 1993, 2004 and 2010, the measurement questionnaire was used for this purpose and it focused on the best practices used in the companies and their operational performance. The results showed that the use of the measurement questionnaire for this purpose focused on the best practices used in the companies and their operational performance. The results show that the use

of the measuring instrument has changed over time over the past 53 years. The use of measurement has increased considerably between 1993 and 2004 and the change from internal use to measurement to competitive measurement, (2004 and 2010), where competitive measurement was less concerned, with the trend towards measuring or abandoning the division or group levels almost as a tool for development. The data showed that there was no clear relationship between the use of measurement and operational results.

A study **Bjorklund, (2010)**⁽³²⁾ entitled: Benchmarking as a tool to improve social responsibility in procurement. Benchmarking as tool for Improved corporate social responsibility in procurement.

The study aims at identifying a reference benchmarking tool that can be applied to improve the social responsibility of corporate procurement. The study was based on a review of previous studies in this field which proves the importance of comparative comparison in this field, as well as information on practices and activities that can be applied in the structure of the study. The field data were collected through the sustainability reports of two companies in Sweden. The results of the study were the development of a measurement tool in the area of social responsibility for procurement. The tool test provided concrete examples of activities that could be used to address various aspects of corporate social responsibility in procurement. The study also made a significant contribution to the development of the measurement tool, which can be of great help to companies Enterprises in the quest to increase social responsibility in procurement, the tool also provides guidance for companies that want to understand and know areas of strengths and weaknesses.

A study **Baldacchino & Balzan (2007)**⁽³³⁾ entitled: Comparison of Maltese Internal Audit Units. Benchmarking in Maltese internal audit units.

The study aims at determining the extent of awareness of the internal control process in the Maltese business units, the main perceived benefits, constraints and major obstacles to implementation. The study hypothesized that the approach to total quality management and the call for corporate governance requires the adoption of a comparative measurement of processes as a first step towards critical evaluation of these processes and management of change. The methodology of the study was designed through a series of interviews with a number of 12 executives representing most of the Maltese internal control units. The study concluded that there is a poor understanding of the current measurement and evaluation techniques of executives and that the existing benchmark comparisons are merely primitive comparisons. The

study also showed the executives' assessment of the benefits of measurement as an effective tool for quality, but they are divided by limited measurement,

as well as regulatory and cultural barriers that prevent them from realizing their potential benefits.

Study **Qiao & Liu, (2004)**⁽³⁴⁾ entitled: Study through the Benchmarking of e-business and e-commerce in China. Study on benchmarking of e-business and e-commerce in china.

The study aims at developing an integrated benchmarking system in e-business and e-commerce in China. The study was supported by the United China-EU Information Society Project. This study was the basis for China's achievement of excellence in the information society. It included several models and points of reference for the necessary success of e-business and commerce in China. It provided the necessary recommendations for the establishment of an e-commerce system in China, The most important of which are: resources, consistency of measurement indicators, normative framework dynamics, stakeholder integration, good choice of external partners, competitiveness, organizational changes, adequate skills, external factors, legal system, communication Effectively, in addition to the economic sector on coverage.

4- Method and Procedures:

4.1 The Methodology of the Study:

The study adopted the analytical descriptive approach to identify the views of the faculty members in adopting the method of benchmarking and the university performance in the blue and the Aqaba classes at Al-Balqa Applied University on the one hand and to measure the effect of adopting the reference comparison method in evaluating the university performance.

4.2 The Study Sample and Community:

The study population consists of (128) faculty members in the colleges of Al-Zarqa and Al-Aqaba of Al-Aqaba Applied University distributed on the two colleges mentioned (82, 46) faculty members, respectively. A sample of 30% of the study population was selected. The study sample consisted of (38) faculty members with (25, 13) faculty members respectively, who were selected using the random stratified sample method. All (38) questionnaires were distributed and all the questionnaires were retrieved and valid for statistical analysis.

4.3 The Study Tool:

In order to achieve the objectives of the study, the researcher designed a questionnaire to collect the necessary data related to the adoption of the method of benchmarking in the evaluation of university performance. The questionnaire dealt with the elements of benchmarking and the dimensions of university performance. The questionnaire included 68 items, all

the items were formulated in the light of a five-step Likert Scale, and the following criterion was adopted for the purpose of describing the level of assessment of the responses of the sample members (1-2.33) Low level, (2.34- 3.67) Average level, (3.68-5) High level.

4.4 The Study Authenticity and Stability:

The researcher verified the validity of the study tool by presenting it to (3) referees in the field of specialization. The veracity of the items in terms of clarity and language formulation and their suitability for measuring the items and variables of the study were verified. The consistency of the study tool was verified by testing the internal consistency of the questionnaires. The coefficient of (Alpha Cronbach) for the total instrument (0.869) and (0.742) for the two colleges (Al-Zarqa and Al-Aqaba) respectively were very good for research purposes (Cronbach & Shavelson, 2004: 391). Table (1) shows that:

Table (1): Test the internal consistency of the resolution paragraphs using the coefficient (Alpha Cronbach)

N	Benchmarking Elements	Total Items	Al-Zarqa College (N = 25)		Al-Aqaba College (N = 13)	
			Alpha Cronbach	Stability Ratio	Cronbach Alpha	Stability Ratio
1.	Faculty Members	10	0.819	%81.9	0.706	%70.6
2.	Course	10	0.634	%63.4	0.624	%62.4
3.	Class Behavior	10	0.725	%72.5	0.746	%74.6
4.	Study Plan	10	0.789	%78.9	0.726	%72.6
5.	Examinations and Results	10	0.665	%66.5	0.715	%71.5
6.	University Performance	18	0.911	%91.1	0.837	%83.7
7.	Total tool	68	0.869	%86.9	0.742	%74.2

5- Data Analysis and Testing of Hypotheses:

5.1 Results of the First Question of the Study:

What is the level of adoption of the benchmarking elements in Al-Zarqa and Aqaba Colleges at Al-Balqa Applied University from the point of view of faculty members?

To answer the first question of the study, the arithmetical averages and standard deviations of the reference elements were calculated. As shown in Table (2) below:

Table (2): The Arithmetical Averages and Standard Deviations of the Benchmarking Elements

N	Benchmarking Elements	Al-Zarqa College (N = 25)			Al-Aqaba College (N = 13)		
		Average	Standard Deviation	Adoption Level	Average	Standard Deviation	Adoption Level
1-	Faculty Members	4.11	0.39	High	4.03	0.11	High
2-	Course	4.02	0.31	High	3.77	0.20	High
3-	Class Behavior	3.94	0.39	High	3.72	0.17	High
4-	Study Plan	3.95	0.44	High	3.69	0.19	High
5-	Examinations and Results	3.99	0.23	High	3.75	0.24	High

The results in Table (2) indicate the following:

a. The level of adoption of Al-Zarqa and Aqaba Colleges for the benchmarking element (faculty and staff) was high from the point of view of faculty members, where the arithmetic average (4.11, 4.03) for the two colleges respectively.

b. The level of adoption of Al-Zarqa and Aqaba Colleges for the benchmarking element (course) was (high) from the point of view of faculty members, where the mean (4.02, 3.77) for the two colleges respectively.

c. The level of adoption of Al-Zarqa and Aqaba Colleges for the benchmarking element (class behavior) was high from the point of view of the faculty members, where the mean (3.94, 3.72) for the two colleges respectively..

d. The level of adoption of Al-Zarqa and Aqaba Colleges for the benchmarking element (study plan) was (high) from the point of view of faculty members, where the mean (3.95, 3.69) for the two colleges respectively.

e. The level of adoption of Al-Zarqa and Aqaba Colleges for the benchmarking element (examinations and results) was high from the point of view of the faculty members, where the mean (3.99, 3.75) for the two colleges respectively.

5.2 Results of the Second Question of the Study:

What is the level of evaluation of the university performance of both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University from the point of view of faculty members?

5.3 Test Results of the Study Hypothesis:

H0: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in the two Colleges of Al-Zarqa and Al-Aqaba of Al-Balqa Applied University on the adoption of the method of benchmarking with its elements (faculty members, Examinations and results).

To verify the validity of the hypothesis of the study is incorrect, the validity of the subsidiary hypotheses arising from it should be tested as follows:

a. First Hypothesis Test Results:

H01: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both Al-Zarqa and Al-Aqaba levels at Al-Balqa Applied University about the component (faculty members).

To test the validity of the first sub-hypothesis, the T-Test was used for two independent samples to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the component (faculty members) as shown in Table 3:

Table (3): Results of the T-Test to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the component (faculty members)

Reference element	Colleges	Average	Calculated value (t)	Freedom Level	Statistical significance
Faculty Members	Al-Zarqa	4.11	0.695	36	0.492
	Al-Aqaba	4.03			

(T =) value of tabulation in the freedom level (36) and the moral level ($\alpha = 0.05$) = 2.031

The results of the T-Test test in Table (3) calculated for the faculty members indicate that there are no statistically significant differences between the responses of faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University. This is supported by the value of (t) calculated (0.695), which is less than the tabular value of (2.031), and its statistical significance is (0.492) which is greater than the level of significance ($\alpha = 0.05$). In the light of the previous results, the hypothesis of the first sub-element (H01) was accepted. This means that the responses of faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University are equivalent to the element (faculty members).

b. Second Hypothesis Test Results:

H02: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in the two Colleges of Al-Zarqa and Al-Aqaba of Al-Balqa Applied University on the adoption of the method of benchmarking with its elements (Course).

To test the validity of the first sub-hypothesis, the T-Test was used for two independent samples to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the component (Course) as shown in Table 4:

Table (4): Results of the T-Test to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the component (Course)

Reference element	Colleges	Average	Calculated value (t)	Freedom Level	Statistical significance
Course	Al-Zarqa	4.02	3.658	36	0.001
	Al-Aqaba	3.77			

(T =) value of tabulation in the freedom level (36) and the moral level ($\alpha = 0.05$) = 2.031

The results of the T-Test test in Table (4) calculated for the course (s) showed that there were statistically significant differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the component of the course. This is supported by the

calculated value of t (3.658) which is greater than the tabular value of (2.031) and the statistical significance is (0.001) which is lower than the level of significance ($\alpha = 0.05$). In the light of the previous results, the hypothesis of the second sub- hypothesis (H02) and the acceptance of the alternative hypothesis (H12) were rejected. This means that the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University are unequal about the element (course) Al-Zarqa College in Al-Balqa Applied University in terms of mean arithmetic mean (4.02) which is greater than the arithmetic mean of Al-Aqaba College.

c. Third Hypothesis Test Results:

H03: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in the two Colleges of Al-Zarqa and Al-Aqaba of Al-Balqa Applied University on the adoption of the method of benchmarking with its elements (Class Behavior).

To test the validity of the first sub-hypothesis, the T-Test was used for two independent samples to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the component (Class Behavior) as shown in Table 5:

Table (5): Results of the T-Test to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the component (Class Behavior)

Reference element	Colleges	Average	Calculated value (t)	Freedom Level	Statistical significance
Class Behavior	Al-Zarqa	3.94	1.967	36	0.057
	Al-Aqaba	3.72			

(T =) value of tabulation in the freedom level (36) and the moral level ($\alpha = 0.05$) = 2.031

The results in Table (5) calculated for the class behavior component showed no statistically significant differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the element of descriptive behavior. This is supported by the calculated value of t (1.967), which is less than the tabular value of (2.031), and its statistical significance is (0.057), which is greater than the moral level ($\alpha = 0.05$). In the light of the previous results, the third sub-hypothesis (H03) was accepted. This means that the responses of the faculty members of both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University are equivalent to the element (Class Behavior).

d. Forth Hypothesis Test Results:

H04: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members

in the two Colleges of Al-Zarqa and Al-Aqaba of Al-Balqa Applied University on the adoption of the method of benchmarking with its elements (Study Plan).

To test the validity of the first sub-hypothesis, the T-Test was used for two independent samples to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the component (Study Plan) as shown in Table 6:

Table (6): Results of the T-Test to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the component (Study Plan)

Reference element	Colleges	Average	Calculated value (t)	Freedom Level	Statistical significance
Study Plan	Al-Zarqa	3.95	2.044	36	0.048
	Al-Aqaba	3.69			

(T =) value of tabulation in the freedom level (36) and the moral level ($\alpha = 0.05$) = 2.031

The results of the T-Test test in Table (6), which is calculated for the study plan element, indicate that there are statistically significant differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University. This is supported by the calculated value of t (2.044), which is greater than the tabular value of (2.031), and its statistical significance is (0.048), which is less than the moral level ($\alpha = 0.05$). In the light of the previous results, the hypothesis of the fourth sub-null (H04) and the acceptance of the alternative hypothesis (H14) were rejected. This means that the responses of faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University are unequal about the element of the study plan. (3.95), which is greater than the arithmetic average of Al-Aqaba College.

e. Fifth Hypothesis Test Results:

H05: There were no statistically significant differences ($\alpha \leq 0.05$) between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the adoption of the method of benchmarking with its elements (Examinations and Results).

To test the validity of the first sub-hypothesis, the T-Test was used for two independent samples to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the

component (Examinations and Results) as shown in Table 7:

Table (7): Results of the T-Test to measure the differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University about the component (Examinations and Results)

Reference element	Colleges	Average	Calculated value (t)	Freedom Level	Statistical significance
Examinations and Results	Al-Zarqa	3.99	2.945	36	0.006
	Al-Aqaba	3.75			

(T =) value of tabulation in the freedom level (36) and the moral level ($\alpha = 0.05$) = 2.031

The results in Table (7), which is calculated for the (examinations and results) component, indicate that there are statistically significant differences between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University. This is supported by the calculated value of t (2.945), which is greater than the tabular value of (2.031), and its statistical significance is (0.006), which is below the level of significance ($\alpha = 0.05$). In the light of the previous results, the hypothesis of the fifth sub-hypothesis (H05) and the acceptance of the alternative hypothesis (H15) were rejected. This means that the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University are unequal about the component (exams and results) (3.99), which is greater than the arithmetic average of Al-Aqaba College.

1. Conclusions and Recommendations

6.1 Conclusions

In the light of the results of the analysis of the study data, the following were reached:

1. The results of the analysis showed that the level of adoption of the two components of the reference variables (faculty members, course, classroom behavior, study plan, examinations and results) was high from the point of view of the teaching staff.
2. The results showed that the level of assessment of the university performance of both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University was (high) from the point of view of the faculty members.
3. There were statistically significant differences ($\alpha = 0.05$) between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University on the adoption of the method of reference comparison with the elements of (course, study plan, exams and results)
4. There were no statistically significant differences ($\alpha = 0.05$) between the responses of the faculty members in both Al-Zarqa and Al-Aqaba Colleges on adopting the method of benchmarking of two elements (faculty members and class behavior)

5. The results of benchmarking showed that Al-Zarqa College surpassed Al-Aqaba College with respect to three components (the course, the study plan, the exams and the result.)

6. There is a statistically significant effect at the level of significance ($0.05 = \alpha$), to adopt the method of benchmarking in the evaluation of the university performance of both Al-Zarqa and Al-Aqaba Colleges of Al-Balqa Applied University.

6.2 Recommendations

In light of the results of this study, the researcher recommends the following:

1- Al-Zarqa College in Al-Balqa Applied University should pay attention to the element of benchmarking (class behavior) included in benchmarking elements for obtaining the fifth rank and last on the priorities of faculty members and their interests in the mentioned college.

2- Al-Aqaba College has to pay attention to benchmarking (the study plan) within the benchmarking elements to obtain the fifth rank and last on the priorities of faculty members and their interests in the mentioned college.

3- The study recommends that Al-Balqa Applied University should direct the Al-Aqaba College to review and update the elements of benchmarking (study course, study plan, examinations and results), with continuous focus and follow up of the mentioned elements.

4- Working on the holding of scientific seminars and workshops by Al-Balqa Applied University and specifically Al-Aqaba College, which discuss ways to improve the elements of benchmarking of (course, study plan, examinations and results).

5- The study recommends that the Deanship of Student Affairs at Al-Zarqa College to hold educational and orientation seminars for its students, which aim at guiding students to abide by university instructions in order to be an effective tool in establishing the comprehensive cultural life of our dear country.

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