

THE SUSTAINABLE DEVELOPMENT AND THE QUALITY EFFORT OF BUREAU OF STATISTICS AND CENSUS POPULATION LIBYA ON LIBYAN UNIVERSITIES: LITERATURE REVIEW

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ABSTRACT

The current study aims to evaluate the sustainable development and the quality effort of Bureau of statistics and census population Libya on Libyan universities. To achieve the aim of the study the researcher relied on the descriptive-analytical method, and used the survey as the main tool for the study, the study sample includes 45 employees of Bureau of statistics and census population Libya. The results revealed that, on the existence of an average level of practices of the total quality strategy in the Bureau of statistics and census population Libya, meaning that the institution is working to improve its performance in an average way with regard to its focus and attention to its customers. It also conducts seminars and training courses for workers in order to consolidate the principles of quality efforts and adopt new methods and methods.

INTRODUCTION

This scientific and information revolution that characterizes our contemporary world has put Bureau of statistics and census population in front of crucial challenges in several areas, including communication, the Internet, and information transfer. The continuity of the Bureau of statistics and census population in the future is related to the extent of its success in carrying out these functions, especially as the world today is witnessing several changes at all levels, whether economic, political, social, or cultural. Globalization has eliminated all barriers, imposed a kind of stereotypical life, and led to competition in Most of the machines. Therefore, many beneficiaries and those interested in the service sector were forced to search for famous institutions for the quality of service they provide (Mahmood, Ahmad, Rehman, & Ashiq, 2021).

Bureau of statistics and census population are immune to these changes, as they are striving today, regardless of their size or type, to upgrade the level of their services until they reach the degree of excellence, which is what each of the providers of these services aspires to on the one hand, and the beneficiaries on the other hand (Khan, Masrek, & Mahmood, 2019). With the advent of the third millennium, Bureau of statistics and census population urgently need change, especially concerning universities, which must achieve their endeavour to improve the level of their services. This endeavour makes them face the need to adopt a comprehensive policy of change (Gathoni & Walt, 2019).

In addition to the challenges faced by the institution, which were mentioned, there remain other bets related to the efficient use of resources, preserving the environment, and taking into account social aspects. These bets emerged due to the increasing pressures and calls for protecting the environment and rationalizing the use of resources and energies, hence the need to find the necessary measures to bring down the dimensions of sustainable development on the ground (Anasi, Ukangwa, & Fagbe, 2018). Perhaps achieving quality is one of the ways to embody sustainable development at the level of Bureau of statistics and census population, especially since the current trend has become more concerned with the quality of services in

accordance with internationally accepted characteristics and specifications of all kinds. Nikonorova (2017) defines sustainable development as the ability of an institution to meet the needs of a country's people over a period of time, taking into account the country's economic, social and environmental constraints. 21st century Bureau of statistics and census population are witnessing a massive paradigm shift and are becoming hybrid spaces, combining new activities supported by digital internet technologies alongside the traditional model. Thus, the current study aims to evaluate the sustainable development and the quality effort of Bureau of statistics and census population Libya on Libyan universities.

1.1 Problem statement

The Bureau of statistics and census population works on a distinguished administrative effort that ensures its continuity and superiority within a strategic framework. So that innovation in management methods and techniques is one of the most important and best solutions to confront these challenges or to avoid them. One of the most prominent methods that drew the attention of Bureau of statistics and census population is the quality of services, as it is an effective means in bringing about significant changes in the philosophy and style of work to achieve the highest quality, and its use by the institution as a bridge to reach solutions and keep pace with all economic conditions on the one hand, and environmental and social restrictions on the one hand. And gaining a green reputation that achieves sustainable development.

It can be said that Bureau of statistics and census population Libya have become living on this reality with all its pressures, so they started building their strategy that enables them to use comprehensive quality methods in order to keep pace with all changes and challenges to achieve and embody the principles of sustainable development.

Based on the foregoing, the research problem revolved around the main question:

- What is the role of the quality effort strategy in achieving sustainable development within the Bureau of statistics and census population Libya on Libyan universities?

Through the previous question, and to clarify the topic more, the following sub-questions can be asked:

- Is there a statistically significant role for the comprehensive quality strategy in achieving the economic dimension of sustainable development for the institution under study?
- Is there a statistically significant role for the comprehensive quality strategy in achieving the social dimension of sustainable development for the institution under study?
- Is there a statistically significant role for the comprehensive quality strategy in achieving the environmental dimension of the sustainable development of the institution under study?

1.2 Research objectives

This research seeks to highlight how to achieve sustainability for Bureau of statistics and census population Libya by relying on the quality effort, and adopting the latter as a bridge through which the institution crosses and keeps pace with all the challenges related to sustainable development. The purpose of this study is to achieve set of objectives listed below:

- Highlighting the subject of the quality effort as a strategic philosophy adopted by the institution in order to achieve sustainable development.
- An attempt to diagnose the reality of the application of quality efforts in the Bureau of statistics and census population Libya, and to show the methods for this in order to enable it to achieve sustainable development.
- Access to some results and suggestions that could contribute to the development of the quality efforts in the Bureau of statistics and census population Libya to achieve sustainable development, remove some of the ambiguity surrounding its application, and highlight its benefits upon application.

1.3 Research Importance

The importance of the research stems from the role that total quality plays in contributing to building the permanence of competitive advantage, and considering that survival and continuity are the two most important goals that the institution seeks to achieve in light of the challenges imposed by the environment, especially with the development of information and communication technology that has increased the intensity of economic competition between institutions. The institution must search for ways to achieve a sustainable development advantage by following the effort quality strategy.

The importance of the topic also lies in the institution's urgent need for guiding specifications that achieve continuous improvement, in order to ensure its survival and continuity in light of the restrictions and limits imposed by sustainable development, through the most important modern management techniques in achieving the optimal exploitation of resources in a sustainable manner, and activating the social and environmental responsibility of the institution.

1.4 Research Terms

- **Quality effort:** is a mix of two crucial elements: comprehension and striving to improve the minor details. When these two aspects are integrated, the execution is taken to a whole new level. Quality effort is being conscientious about each task and exerting maximum effort (Zhang, 2018).
- **Sustainable development:** Tomislav (2018) defined sustainable development as that activity that leads to the advancement of social welfare with the greatest possible care for the available natural resources, and with the least possible amount of damage and harm to the environment, and shows that sustainable development is different from development in a more complex and intertwined universe with what is natural and social.

LITERATURE REVIEW

1.5 Quality effort

C. Robert Pace (1984) coined the term "quality of effort," which is closely connected to "participation." The quantity, quality, and breadth of effort that a person expends in educational experiences are defined as the amount, quality, and extent of effort that a person expends in educational experiences. Pace (1984) defines education as a product as well as a process. Outcomes such as information or skills obtained are examples of products. Experiences or approaches like as observation or conversation are included in the process (Gupta, 2019). According to Pace, one major drawback of higher education research is that academics tend to focus on the outcome of education while overlooking the relevance of the learning process. As Huang & J.Kauffman (2011) argued that, another feature of effort quality is that it highlights the person's role in education. While the features of the institution have an influence on student learning, what the student performs is crucial. The institution may have a great program that encourages student-faculty contact, but if the student makes no effort to participate, the program will have little learning influence on student. Students must seize chances meant to encourage learning. The use of events and conditions provided by the institution to support student learning and growth is measured by the quality of effort.

1.6 Sustainable development

In view of the irrational use of natural resources and energy, and the misuse of the environment as a free commodity, and considering it as a commodity and a source for maximizing profits, and forgetting that the environment is the only area for our survival and the continuity of future generations and the resulting accumulation of environmental damage, the concept of sustainable development penetrated the world of

institutions and imposed. The latter must adapt and respond to contemporary requirements and developments.

The trend of sustainable development is considered one of the most prominent new developmental trends during the eighties, where sustainable development is of increasing importance at all levels. The corporation is considered an important factor in provoking environmental problems, pollution and negatively affecting human health, due to the fact that its goal is limited to profit. Sustainable development is also considered one of the most important developments in modern development thought, and the most prominent addition to the development literature during the last decades, as this phenomenon has been linked to the growing awareness of environmental problems and the relationship between humans and environmental development (Silvestre & Țîrcă, 2019). Sustainable development has suffered from severe overcrowding in definitions and meanings, due to the multiplicity of its uses, some deal with it as an ethical vision and others see it as an alternative development model, or perhaps a way to fix errors and stumbles related to the environment, and there are those who deal with it as an administrative issue and a set of laws and decisions that raise awareness and plan for a better use of resources.

Sustainable development was first defined by Bruntland Harlen Gro and was considered the first official term in 1987 in Our Common Future Report, as: that development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Sachs, 2019). This definition focused on preserving the future of future generations, and integrating economic, social and environmental needs into one definition. This definition carries with it the concept of need and the idea of constraints:

- Need: the special and basic needs of the poor, which should be given priority.
- Constraints: i.e. environmental constraints and the ability of the latter to meet current and future needs.

In addition, Vinuesa, et al. (2020) defined sustainable development as that activity that leads to the advancement of social welfare with the greatest amount of concern for available natural resources, and with the least possible amount of damage and harm to the environment, and shows that sustainable development is different from development in a more complex and intertwined universe with what is natural and social for development.

Liu & Hull (2018) determined the basic principles of sustainable development based on the relationship between growth on the one hand and the environment on the other. These principles are as follows:

- Using the systems approach in preparing and implementing sustainable development plans: The systems approach is a prerequisite for preparing and implementing sustainable development plans, on the grounds that the human environment of any society is nothing but a small sub-system of the universal system as a whole, and that any change that occurs to the content and elements of any system A sub-system, whatever its size, is directly reflected and affected by the elements and contents of other sub-systems, and thus the entire system of the Earth. Therefore, sustainable development works, through this method, to ensure the balance of sub-systems with their different ranks and sizes, in a way that ultimately leads to ensuring the balance of the Earth's environment in general. It can be said that the use of the systems approach in preparing and implementing sustainable development plans is an integrated method that aims to preserve the lives of communities.
- Popular participation: sustainable development is a charter that recognizes the participation of all relevant parties in collective decision-making through dialogue, especially in the field of sustainable development planning, policy development and implementation. Sustainable development begins at the local spatial level, the level of communities, cities or villages, and this means that it is below from development that requires achieving it and providing an appropriate form of decentralization, which enables official, popular and civil bodies and the population in general to participate in the steps of preparing,

implementing and following up on their plans. And we should not forget the dozens of decisions that serve the needs of the growing role of local governments, municipal and village councils, which are issued daily, and the priorities of the local community and work to shape it according to a specific pattern.

METHODOLOGY

The descriptive-analytical method was used for its suitability to the nature of the study, and to achieve the objectives of the study and to answer its questions, the questionnaire was relied on and observation done by the researcher.

1.7 Study sample

The topic of the current study, which is the role of quality efforts in achieving sustainable development in the Bureau of statistics and census population Libya, given that the strategy is carried out at the level of all employees. In addition, the sample of the head should include all the executives and employees of the Bureau of statistics and census population Libya, and this is after consulting some specialists in limiting the sample to a specific number, the Bureau of statistics and census population Libya has 53 employees who constitute the study population.

The sample was limited to 45 people, after communicating with the employees and showing that some of them prefer not to join due to the difficulty of their working hours and are not directly responsible for the administrative process.

1.8 Study tools

The questionnaire was designed based on the theoretical study and some scientific books and previous studies related to the topic of the study, after that the questionnaire was presented to the supervising professor and a group of experienced jury members, where some modifications and omissions were added to some phrases and replaced with other terms. The questionnaire was divided into two parts, the first part is for the independent variable and the second part is for the dependent variable.

1.9 The validity and reliability of the tool

The questionnaire was presented to a number of specialists in field and methodological studies in a way that achieves a balance between the contents of the questionnaire in its paragraphs (the confidence level have set at 94%).

To measure the stability of the study tool (resolution), the Cronbach alpha coefficient was used to ensure the stability of the study tool, as this measure is good and appropriate if the value of Cronbach alpha exceeds (60%) and therefore here it is acceptable, as it was the results are explained as follows:

Table 1: Stability coefficients

Variable	Sustainable development	Quality effort	Survey as a whole
Stability coefficient (Cronbach's alpha)	0.923	0.851	0.942

It is noted from Table 1 that the stability coefficients for all study variables are acceptable, and they are greater than (0.60), where the reliability coefficient for all the paragraphs of the questionnaire was (0.942), which is a reliable stability percentage in the field application of the study.

1.10 The statistical methods used

To achieve the objectives of the study and analyze the collected data, the statistical package for the social sciences program (SPSS) was used.

RESULTS

After retrieving the questionnaires, emptying them with the SPSS statistical program, and conducting the appropriate statistical tests. In this section, the effort quality and sustainable development efforts in the Bureau of statistics and census population Libya will be analyzed and measured, and the correlation between the variables and the extent of their independent contribution to the dependent will be highlighted, through correlation coefficients and regression models after testing their validity.

1.11 Quality effort

Measuring the level of the total quality strategy requires measuring the arithmetic means and standard deviations, and given that we use the Likert scale in the questionnaire, the mean means are the ones that exceed the value (1) (the scale starts from the value (1) and ends with the value (5)); This means that the value (3) is the neutral value. Where the arithmetic mean and standard deviation were measured for each sub-variable of the independent variable (quality effort), and the results were as follows:

1- The level of continuous improvement in the organization

Table 2: Continuous improvement level

Term	SMA	S.D.	Ranking	Des.
The institution is keen to create methods of communication on an ongoing basis	3.10	1.36	2	Med.
The institution provides sufficient equipment to carry out quality activities	2.95	1.23	3	Weak
Senior management is concerned with the continuous improvement of the management processes in the institution	2.91	1.31	4	Weak
Quality is one of the basic indicators of the organization in evaluating the performance of each department	3.21	0.713	1	Med.
Total	3.04	1.15		

Table (2) which related to the level of continuous improvement data shows that there is a weak level with a general average of 3.04, which is a value slightly more than the hypothetical average, which is (3) considering that we used Likert's five-scale scale in most of the terms. Some phrases also reflect weakness, including the second and third phrases, respectively, despite the fact that average levels were recorded in the other phrases. However, the general average is affected by weak values. Also, the standard deviations recorded in the data were relatively high, and accordingly the table data indicate a weak level of continuous improvement practices in the surveyed institution.

2- Intensive quality training level

Table 3: Intensive quality training level

Term	SMA	S.D.	R.I	Des.
The institution organizes workshops in order to understand the quality activities	3.58	0.673	2	Med.
The organization's training programs aim to prevent mistakes	3.84	0.634	1	Weak
The institution supports the policy of forming work teams to solve problems	3.15	0.551	4	Weak
The institution is keen to evaluate the impact of training courses on the performance of employees	3.26	0.954	3	Med.
Total	3.45	0.703		Med.

Table (3) shows that there is an average level of intensive quality training in the research institution, where the general average exceeded the hypothetical average value of 3.45, where the largest other averages recorded a value of 3.58, which is a level close to strong, while the other averages ranged between 3.84 and 3.15. The results recorded in the standard deviations also confirmed that there are weak differences in the respondents' answers, meaning that their answers agree in their entirety. Accordingly, it can be said that the average level of intensive quality training practices in the surveyed institution.

1.12 Sustainable development

1- Economic data analysis

Table 4: The level of the economic dimension

Term	SMA	S.D.	R.I	Des.
The institution works to provide services at lower costs	3.53	0.607	1	Med.
The institution relies on economic models to achieve sustainability	2.85	1.090	3	Weak
The institution is keen to rationalize energy consumption	3.05	0.778	2	Weak
The institution works on the sustainable improvement of its services	2.65	0.728	4	Weak
Total	3.02	0.800		Med.

Table (4) shows the level of the economic country in the institution under study, and the general average reached 3.02 with a value that exceeds the hypothetical average, and the average expressions of the respondents' answers contributed to raising this value, as the averages ranged between: 3.53 and 00.02.65, and there is a weakness in the third phrase and fourth respectively. Also, looking at the standard deviations, the average levels were defined, ranging between: 0.607 and 1.09, which means that there are medium-level differences in the respondents' answers about the economic dimension. Accordingly, there is an average level regarding the practices of the economic dimension in the Bureau of statistics and census population Libya.

2- Social data analysis

Table 5: Social dimension level

Term	SMA	S.D.	R.I	Des.
The institution seeks to meet the needs of the community in which it operates	3.27	0.621	1	Med.
The institution develops strategies for the rehabilitation of employees	2.79	0.713	5	Weak
The institution develops training programs to empower workers with regard to sustainable development	3.06	0.523	3	Med.
The institution observes justice in the distribution of wages	2.94	0.681	4	Weak
The institution provides the requirements of occupational security for its workers	3.20	0.652	2	Med.
Total	3.052	0.638		Med.

Table (5) related to the social dimension data shows an average level, where the value of the general average was estimated at 3.052, which is a value greater than the value of the hypothetical average, although medium

levels were recorded in the first, third, and fifth, but there is a weak levels in the second and fourth phrases, respectively. Also, the standard deviations were relatively lower than the deviations recorded in the economic dimension data. Hence, the data in the table indicates the presence of an average level of the level of the social dimension in the institution under the study.

3- Environmental Dimension Analysis

Table 6: Environmental dimension level

Term	SMA	S.D.	R.I	Des.
Directing human resources to ensure a sound environment management	2.52	0.943	3	Weak
The institution works to reduce pollution by using cleaning materials	2.92	1.257	2	Weak
The institution sets special programs for activities that have serious environmental impacts	2.04	0.934	4	Weak
The institution is committed to the environmental management system	2.94	0.681	1	Weak
Total	2.605	0.953		Weak

Through the results of Table (6) above, it is clear that the levels of the environmental dimension are weak in most of the terms, and this was reflected in the general mean level, which amounted to 2.605 with a value less than the hypothetical mean. The averages of the terms ranged between: 2.94 and 2.04, and the standard deviation was recorded average level in the respondents' answers. Accordingly, we conclude that there is a weak level of environmental practices in the Bureau of statistics and census population Libya.

CONCLUSION

After addressing the issue of the role of quality efforts in achieving sustainable development in the Bureau of statistics and census population Libya, in its theoretical and practical parts, it became clear to us that quality efforts plays an important role in embodying the dimensions of sustainable development on the ground, through improving the performance of the institution, which is today one of the basic entities through which sustainable development is achieved. Where the total quality works to create sustainable added value and constantly strive to exploit energies, increase productivity and improve the performance of employees. Where the concept of quality is no longer confined to the product provided to the customer only, but has transcended to the functions of the institution to give it a comprehensive character, and therefore through the institution's adoption of economic models for total quality that support sustainable economic performance.

The total quality strategy is also keen on improving the social and environmental role of the institution through the continuous and continuous improvement of its social and environmental responsibility and its concern for its workers and customers, in addition to trying to establish business ethics as a rational tool characterized by transparency and accountability to make the institution a rational citizen. Through the field study at the level of the Bureau of statistics and census population Libya, there is a role for quality efforts in achieving the dimensions of sustainable development, and the practices of both the dependent variable and the independent variable were medium, but in some of the respondents' answers there were weak levels, but they did not affect the level of the overall average, It also became clear that there is a statistically significant role in activating the dimensions of sustainable development, and the moral significance includes all dimensions in the overall questionnaire.

RECOMMENDATION

Based on the results obtained in the theoretical and practical part, the researcher recommends the following:

- The necessity of linking the university with census institutions to develop research in this field and to adopt the institution's strategy as a basis for adopting sustainable development.
- The necessity of applying economic methods and models that help improve quality efforts in institutions.
- The need to pay more attention to developing strategies related to sustainable development in the institution under study, based on linking the relationship between quality efforts and the general strategy of the institution in order to achieve sustainability.
- It is necessary to spread the culture of sustainable development in all units of the institution and society as a whole, because it will, on the basis of this, be generalized in all sectors.

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