

Total Quality Management in Libyan Private Universities: An Empirical Study

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Abstract:

This paper aims to examine the current practices of Total Quality Management (TQM) system within the Libyan University for Human Sciences and Applied in Tajura (LUHSAT). This paper Evaluate and analyse the factors that might have an impact on the implementing(TQM) system in Libyan higher education comparing with the requirements of ISO in Education IWA 2:2007 and ISO 9001:2015 standards. The findings appear that the LUHSAT need more focus to apply TQM. Several quality indicators had led to improve the system of work in this university.

Background to the paper:

The competitions in the world have pushed the institutions to use the concepts of (TQM) in education.TQM allows institutions to obtain, a high degree of differentiation, satisfying customers' needs and strengthening brand image, and on the other, to reduce costs by preventing mistakes and waste of time and by making improvements in the corporation's processes (Milosa I., 2014).

(Das S., 2013) represents in his paper that higher education plays a vital role in driving economic growth and social cohesion. Higher education is reported to have grown dramatically with more than 17,000 higher education institutions in the world.

The quality education is defined by E. Deming as "totality of features and characteristics of the service which concern their ability to satisfy requirements and needs" (Roszak M.T., 2009). Quality of education is a key factor for improving the business quality, and therefore strengthening competitive advantage. Access to education and quality education are to be regarded as mutually dependent and indivisible needs and rights.

The increased quality focus in organizations has acknowledged the educational requirements foreseen by the quality gurus and has placed an

increased demand on Colleges and Universities. Educational institutions have not only made substantial commitments to improving quality in their processes, but have also begun including quality management education into the curriculum for both graduate and undergraduate programs (Delmonte A. J., 2012).

The problems and justification:

The existing quality system of the Libyan education falls short of achieving excellence and implementing TQM, where the Global Competitiveness Report 2014-2015 issued by the World Economic Forum, referring Libya occupies the last place in the world (144 countries) for the quality of the education system with a total value of 1.9 per 7 (Schwab K., 2014).

Libyan privet universities environment is now a complex and multi-faced aspect, the management and measurement of quality has become a challenging task.

There is a great literature about the TQM in the manufacturing sector; health sector etc. but still there is a lack of useful literature regarding application of TQM in the education sector. TQM will help institutes in creating new knowledge, acquiring new capabilities and producing an intelligent human resource pool, through challenging teaching, research and extension activities so as to balance both the need and the demand of higher education.

The Aims And Objectives:

The primary aims of this paper are to:

- Explore the current practices of TQM system within Libyan Private Universities: case study LUHSAT.
- Evaluate and analyse the factors that might have an impact on the application of TQM system in Libyan privet universities comparing with the requirements of ISO in Education IWA 2:2007 and ISO 9001:2015 standards.

The Research Questions:

To achieve these aims some research questions were derived from suggestions made by a focus group of 5 Libyan academic staff, which have sufficient knowledge of TQM in Libyan privet universities. Some

ideas are derived from previous related studies in different countries such as the Kingdom of Bahrain, India, Pakistan, Philippines, Croatia, Poland and China.

Consequently, the study attempts to answer the following study questions:

- To what extent are TQM system used in the Libyan Private Universities: Case study LUHSAT?
- What factors affect the application of TQM system in Libyan higher education?
- To what extent are LUHSAT applying requirements of ISO in Education IWA 2:2007 and ISO 9001:2015 standards?

Study Methodology:

1- The study methodology is by Collection of data using several methods such as semi-instructed interviews, direct observations and self-assessment check list. The self-assessment quality indicators-based on requirements of ISO in Education IWA 2:2007, ISO 9001:2015 and the self-assessment checklist by (Sallis E., 2012) in his book, Total Quality Management in Education, Third edition and incorporates to some of the ideas in the European Quality Management Foundation. There are 11 quality indicators, which have been weighted to show their relative importance in the quality process. The highest weighted areas are effective teaching and learning and leadership. Leadership is of crucial importance because numerous studies have shown that strong leadership is a key feature of high performing educational institutions. Excellent leaders inspire their staff and ensure that there is a drive for quality improvement.

2- Analysis the existing quality system and comparing it to the requirements of ISO 9001:2015 and the standards to achieve total quality management incorporating ISO9000.

Definitions of Quality and Total Quality Management in Education:

The concept of TQM is developed by W. Edwards Deming to improve the quality of goods and services. It provides the overall concept that encourages the continuous improvement and also focuses on systematic, integrated, consistent, organization-wide perspective including everything

and everyone. TQM is not a one-time process but a journey that never ends. It is a way to survive and succeed (Bhalla R., 2012).

- **Quality:** The definition of quality is summarized in ISO9001:2015 as "the degree to which a set of inherent characteristics of an object fulfils requirements" (ISO9001:2015).
- **Education:** is a provider of services. Its services include advice, tuition, assessment and guidance to pupils and students, their parents and sponsors
- **The quality of education:** understood by E. Deming as "totality of features and characteristics of the service which concern their ability to satisfy requirements and needs" should play an essential role in forming competitiveness in the field of the academic education (Roszak M.T., 2009).

Quality education was one of Crosby's basic elements of improvement and one of Joseph Juran's quality principles was training the entire management hierarchy in quality principles. The increased quality focus in organizations has acknowledged the educational requirements foreseen by the quality gurus and has placed an increased demand on colleges and universities. Many definitions of quality in education exist, testifying to the complexity and multifaceted nature of the concept. The terms efficiency, effectiveness, equity and quality have often been used synonymously. Considerable consensus exists around the basic dimensions of quality education today. However, Quality education includes:

- **Learners:** who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- **Educational organization:** organization providing educational services. It should define and manage the processes for the quality management system. Also it should identify and ensure compliance with statutory, regulatory and accreditation requirements or any other norms that apply to them (IWA 2:2007).
- **Education provider:** person who delivers education to learners.
(IWA 2:2007).
- **Quality Management System (QMS):** There are many different types of systems depend on type of product and on workplace; ISO9000 family of quality standards represents an international consensus on good quality

management practices. ISO standards are general and therefore applicable to any company that makes a product or service.

ISO9001-2015: defined **QMS** as a management system with regard to quality. **Quality Management:** generally includes establishment of the quality policy, quality control, quality assurance and quality improvement (ISO9001:2015).

- **ISO in Education IWA 2-2007:** IWA meaning International Workshop Agreement which provides guidance to educational organizations for implementing an effective quality management system in conjunction with and based on ISO 9001:2000. The objective of this International Workshop Agreement is to assure the overall effectiveness of the education organization's quality management system and the delivery and continual improvement of its educational service to the learner.

(IWA 2:2007).

- **Quality Management in Education:** Quality Management is "an integral part of management, whose role is to reach quality objectives, which are reflected not just in providing but also in improving quality. This is achieved by managing the activities derived from the established quality policies and plans, and is carried out within the quality system, using, among other things, the appropriate quality monitoring plan".

(Vlasic S., 2012).

- **Total Quality Management in Education (TQM):** The concept of total quality, introduced by E. Deming in the 1950s, can be applied to almost every organization up to a certain level. The term stands for the process of shifting the focus of the organization towards a superior quality of products and services. TQM approach in education involves not only achieving high quality but also influencing all segments of the educational process: organization, management, interpersonal relations, material and human resources, etc. Applying the approach described above quality becomes total (integral). (Vlasic S., 2012).

- **Key elements for implementing TQM:** To successfully implemented TQM organization should focus on 7 key elements: Customer focus, Leadership, Engagement of People, Process Approach, Improvement, Evidence- based on decision making and Relationship management. (ISO9001:2015).

Related Studies:

- 1) Das S. (2013) represented in her research paper titled "the possibilities of TQM (Total Quality Management) in the Higher Education in India", it was well recognised that higher education plays a crucial role in motivating economic growth and social solidity. With changes in higher education scenario, newer demands pose fresh challenges to the established education systems and practices in the country. Thus the need of the hour is over howling the existing system of higher education with total quality management (TQM). The concept, borrowed from industrial sector, is gaining grounds and is perhaps the most suitable externally imposed internal quality improvement model in managing the system and raising its excellence. (Das S., 2013).
- 2) A study issued by the Organization for Economic Co-operation and Development represents a black picture of the quality of education sector in several Arab countries. The study noted that the education sector is suffering a serious crisis in all Arab Countries, especially poor ones, attributed there as onto the limited budgets that governments allocated to the education sector, the lack of educational philosophy, clear strategy, weak organizational structure and infrastructure, failure of the university curriculum level, and adoption heavily on keeping information and the absence of substances that develop the critical sense to students, being able to think and analyse the logical method. (BBC, May 2015).
- 3) The Global Competitiveness Report 2014-2015 issued by the World Economic Forum, referring that Libya occupies the last place in the world (144 countries) for the quality of the education system with a total value of 1.9 per 7 (Schwab K., 2014).

Practical Study and Discussions:

The self-assessment educational checklist had been distributed on 11 staffs from LUHSAT as a case study. The indicators for the self-assessment of institutional quality are summarized as following:

1. Access,
2. Services to customers,
3. Leadership,
4. Physical environment and resources,
5. Effective learning and teaching,
6. Students,
7. Staff,

8. Quality Management System,
9. Measurement, analysis, and improvement,
10. Organization, and
11. Standards.

Level scales are according to Likert Five point Scale which is used in the self-assessment to obtain participant's preferences or degree of agreement with a statement or set of statements.

Table (1): Likert Five point Scale

Description	Grade Level
Strongly Disagree.	1
Disagree	2
Neither	3
Agree	4
Strongly agree	5

The obtained results had been analysed statistically, using the measurement of central location (Median), and then organized the data using bar charts.

The following Figures are indicating the obtained results.

1- Access: the grade of quality indicators shown in Figure 1. Are systematic except for availability of signs around the campus and the telephone response times which need improvement.

2- Services to customers: generally need improvement, by availability of student consultants, pre-entry guidance, effective information's and working guidance.

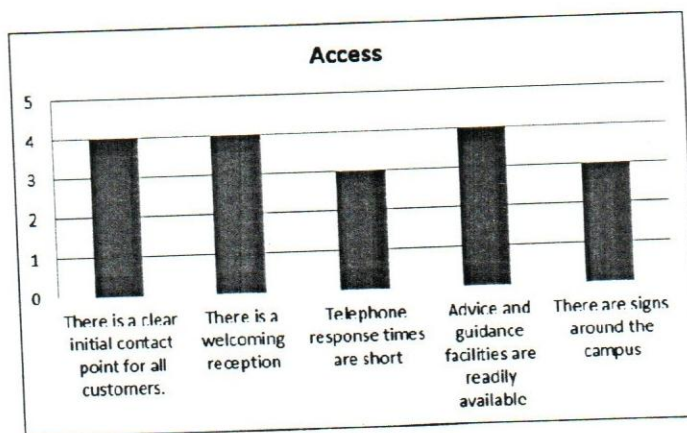


Figure (1): Access

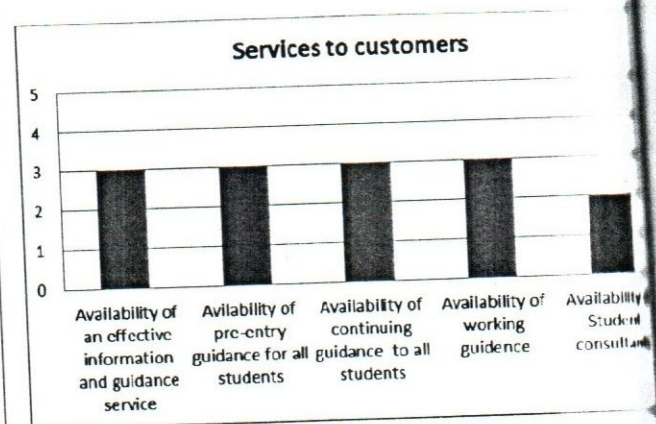


Figure (2): Services to customers

3- Physical environment and resources: the grade of quality indicators for buildings, classrooms and workshops are shown in Figure (8) and Figure (9) which representing that they are in good state, but are not exciting to students.

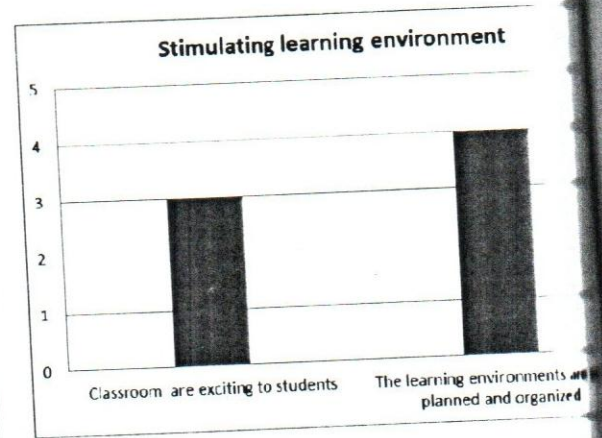
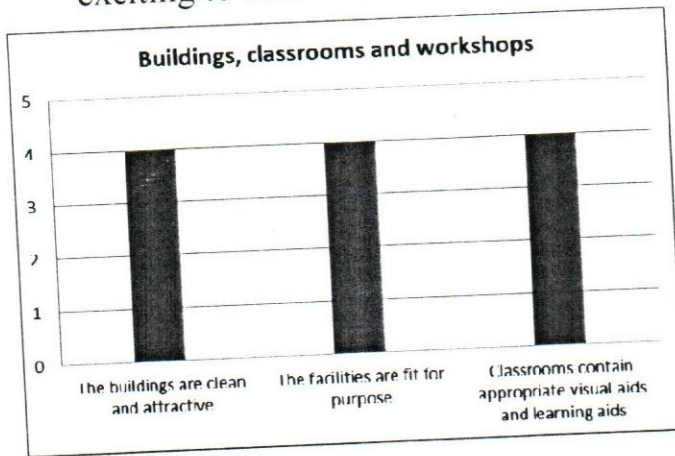


Figure (8): Buildings, classrooms and workshops Figure (9): Stimulating learning environment

Figure (10) represents the quality indicators for health and safety which are systematic, only student perception/incident logs should be keeping. Resource control and allocation quality indicators are shown in Figure (11), where improvement is needed on resources controlled by those who use them.

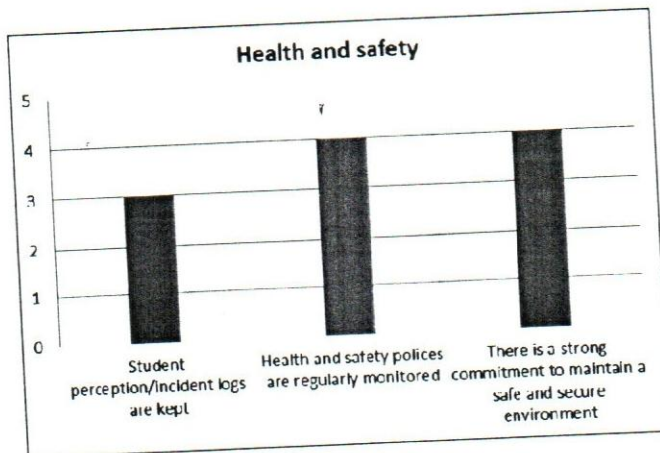


Figure (10): Health and safety

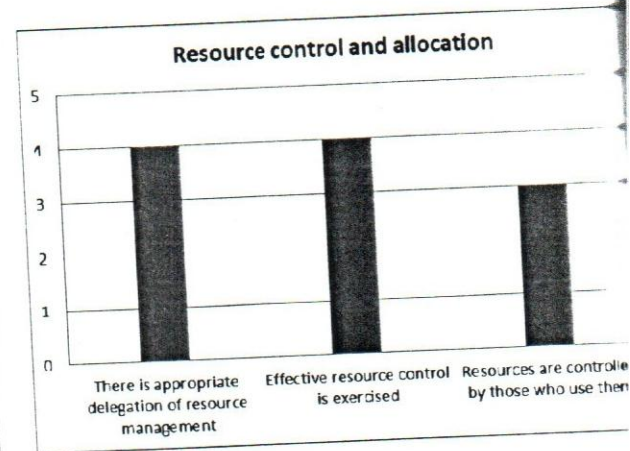


Figure (11): Resource control and allocation

4- Quality costs: indicators represent that it should be regularly monitored and reported, where the quality indicators for this section is shown in Figure (12).

The appropriateness of the curriculum is systematic and need concentration on the development of new courses and programme contents.

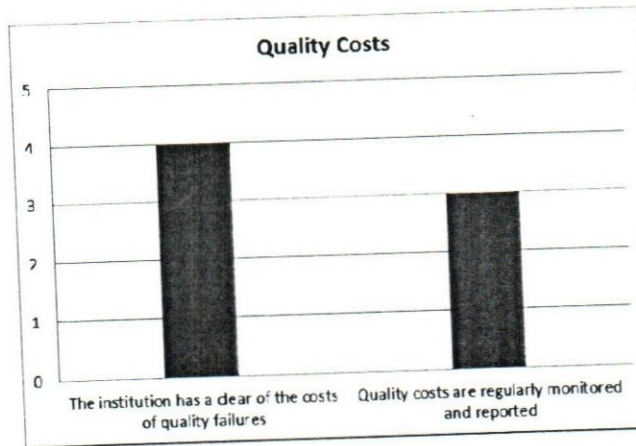


Figure (12): Quality costs

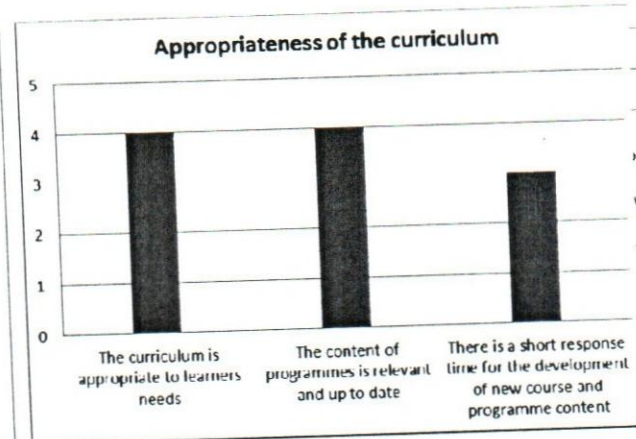


Figure (13): Appropriateness of the curriculum

The appropriateness of the learning methods needs improvements, teaching and learning strategy should be known by all staffs, reviewed and measured by a range of specified criteria and the recognition of prior learning should be available, quality indicators grade are shown in Figure (14).

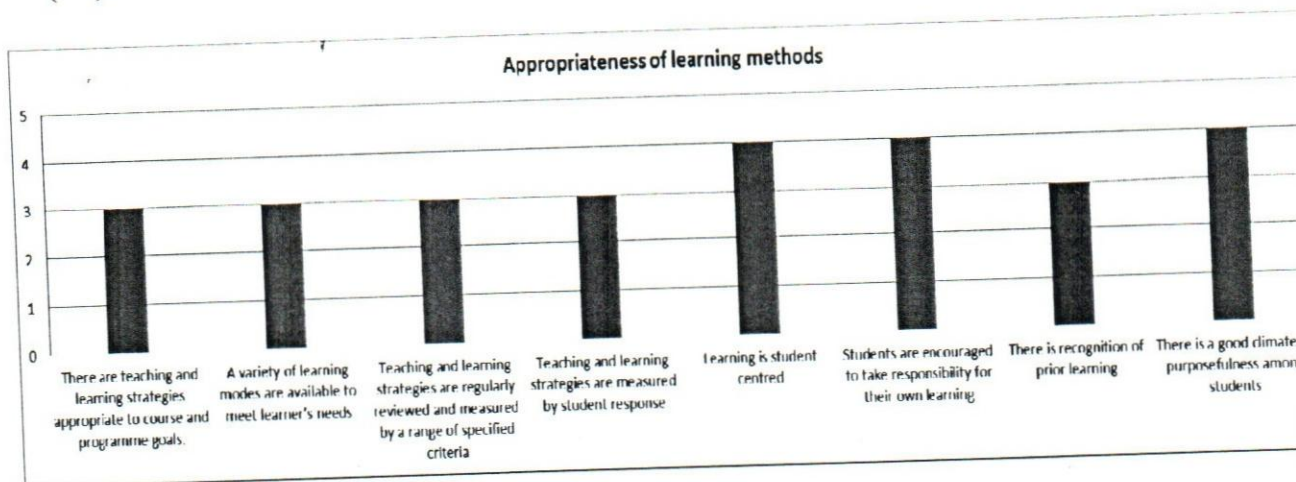


Figure (14): appropriateness of the learning methods

Figure (15) represents the monitoring and evaluation for students, where the quality indicators are systematic for student feedback, appropriate

questionnaires and using student feedback in policy making, and the institution formal system for review and evaluation need improvement.

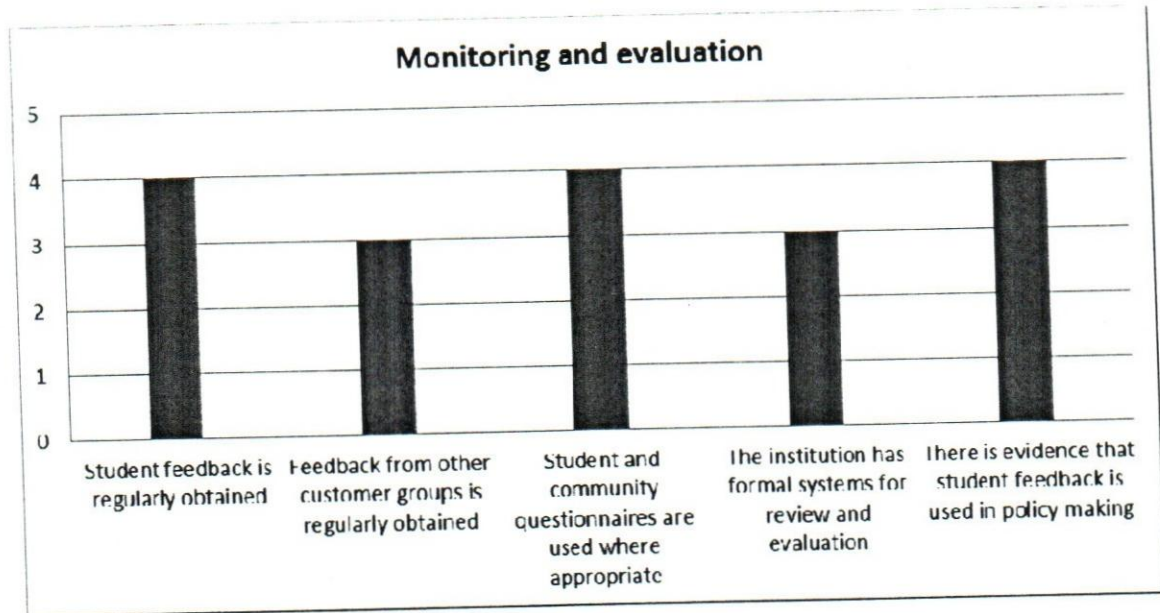


Figure (15): Monitoring and evaluation

Figure (16) represents the quality indicators for students' matter which need improvements.

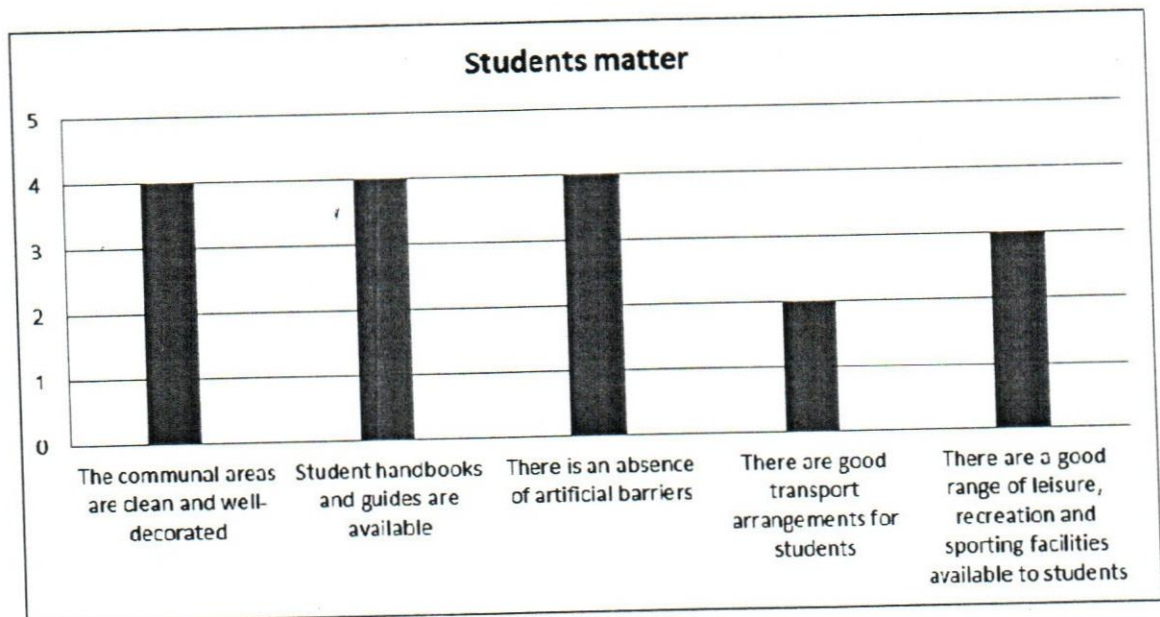


Figure (16): Students matter

The monitoring of student's progress and attendance is regularly held as well as tutorial provision is used effectively as shown in Figure (17).

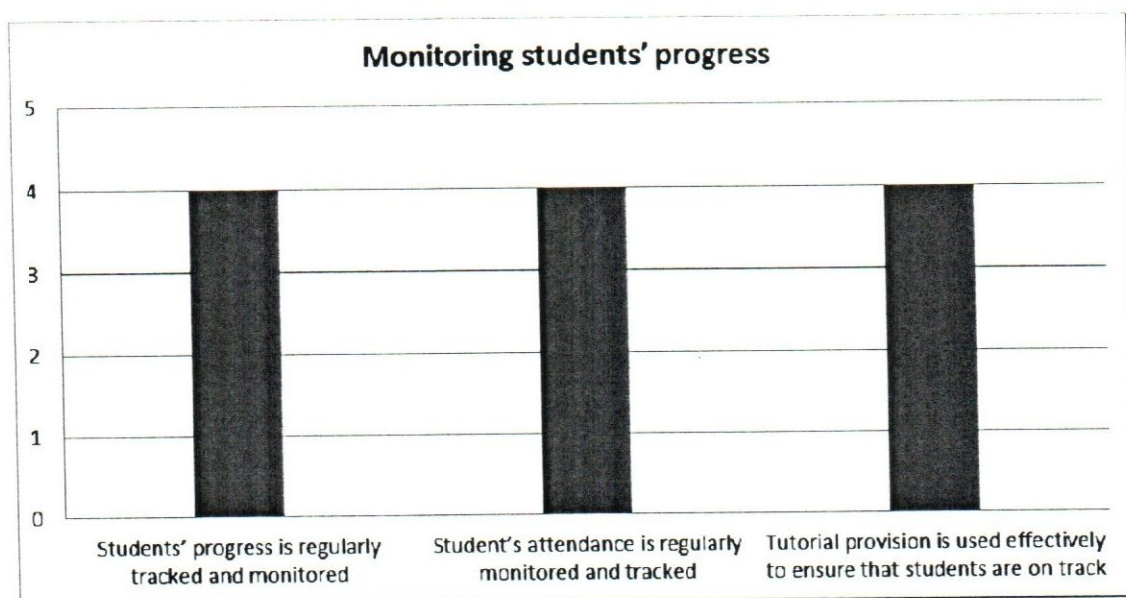


Figure (17): Monitoring student's progress

The students' satisfaction quality indicators are systematic as shown in Figure (18).

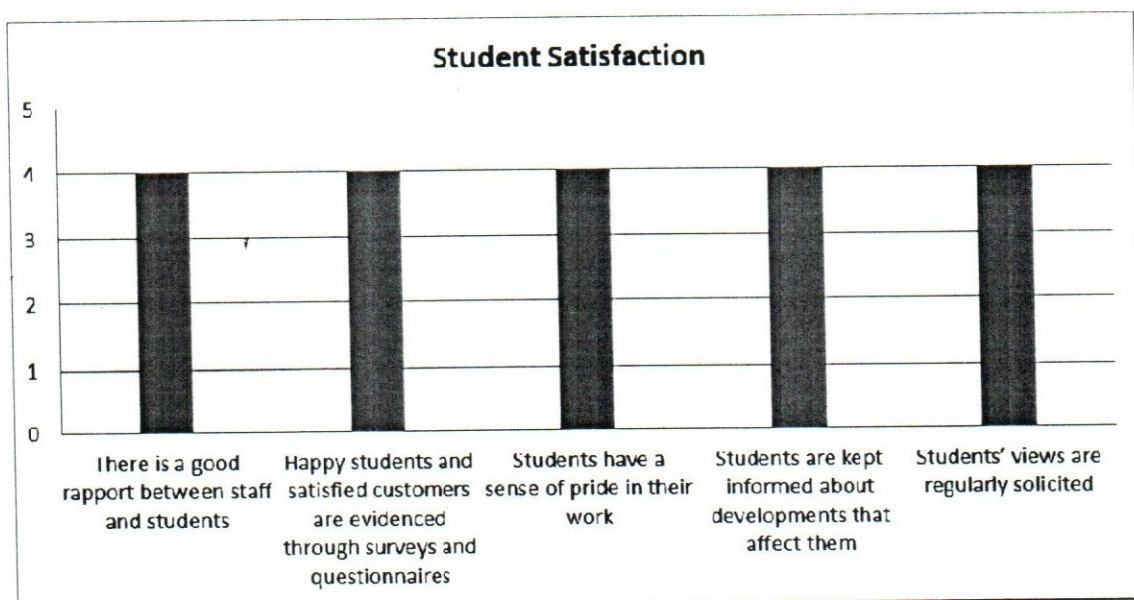


Figure (18): Student satisfaction

5- Staffs: Staffs attitude and motivation are systematic as shown in Figure (19).

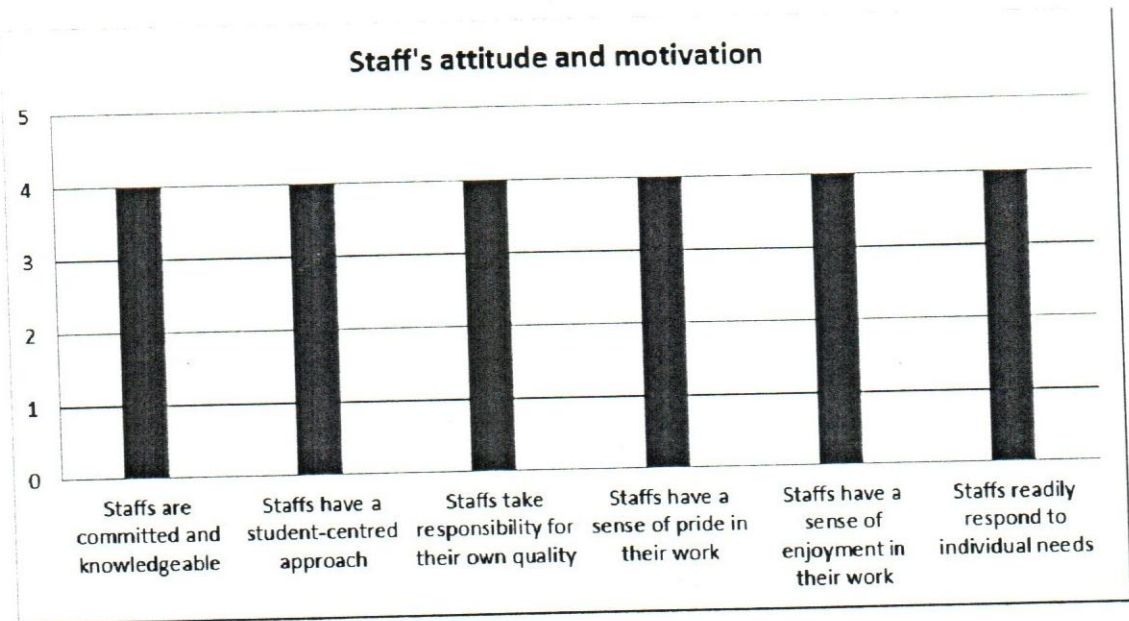


Figure (19): Staff's attitude and motivation

Staffs need training in the skills of teamwork as well as improving their idea of the limits of their authority as shown in Figure (20).

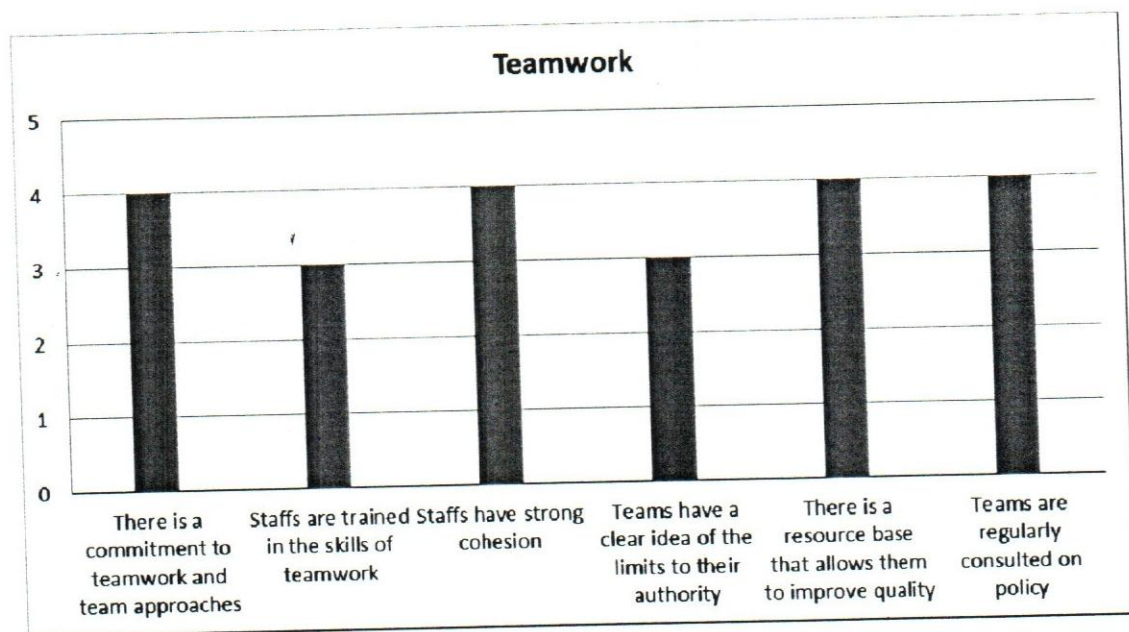


Figure (20): Team work

Staffs development and training need improvement according their needs as shown in Figure (21).



Figure (21): Staffs development and training

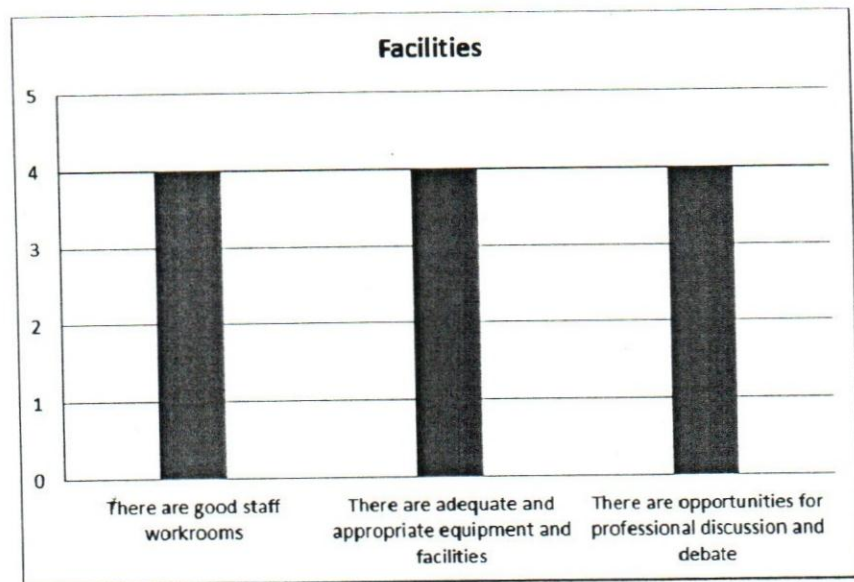


Figure (22): Facilities

6- Quality management system:

Quality management system indicators represents that it should be improve the following:

- Assessments of each learner's knowledge and skill,
- Measures of each learner's motivation for meeting requirements,
- Validation of curriculum to meet both career and education requirements, and
- Systematic monitoring of all processes related to each learner's proficiency.

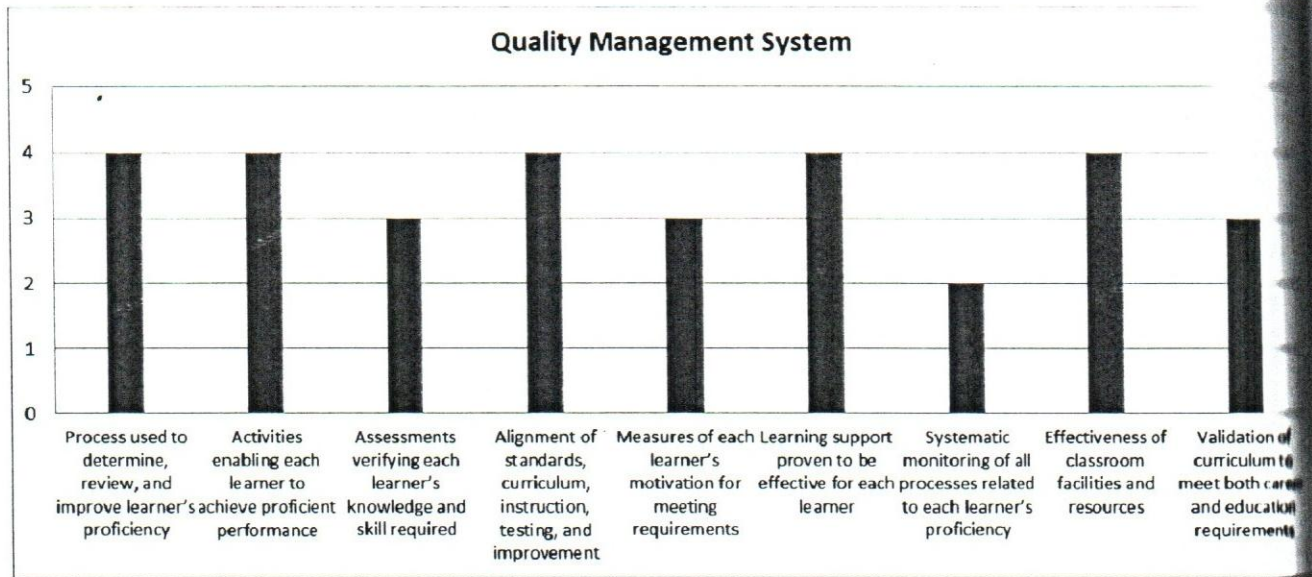
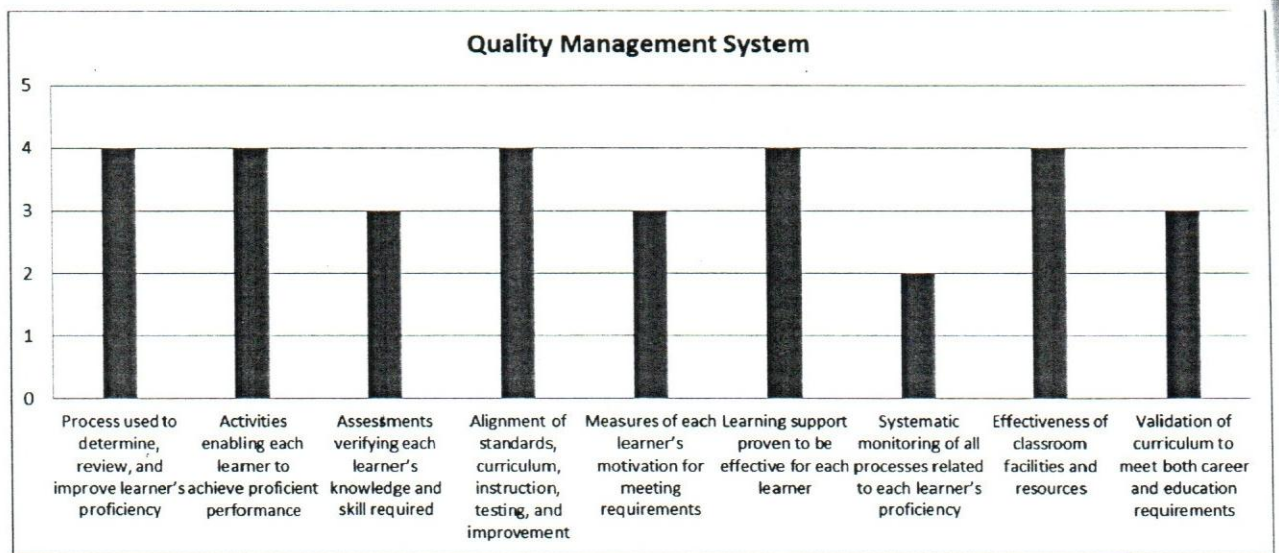


Figure (23): Quality management system indicators



7- Measurement, Analysis and Improvement: as shown in Figure (24) the related indicators need improvement as following:

- Follow-up processes to provide information to community members,
- Verified responses to community needs,
- System goals related to the needs of your community priorities.

As well as the other quality indicators need improvement, in summary the university should concern on measurement, analysis and improvement.

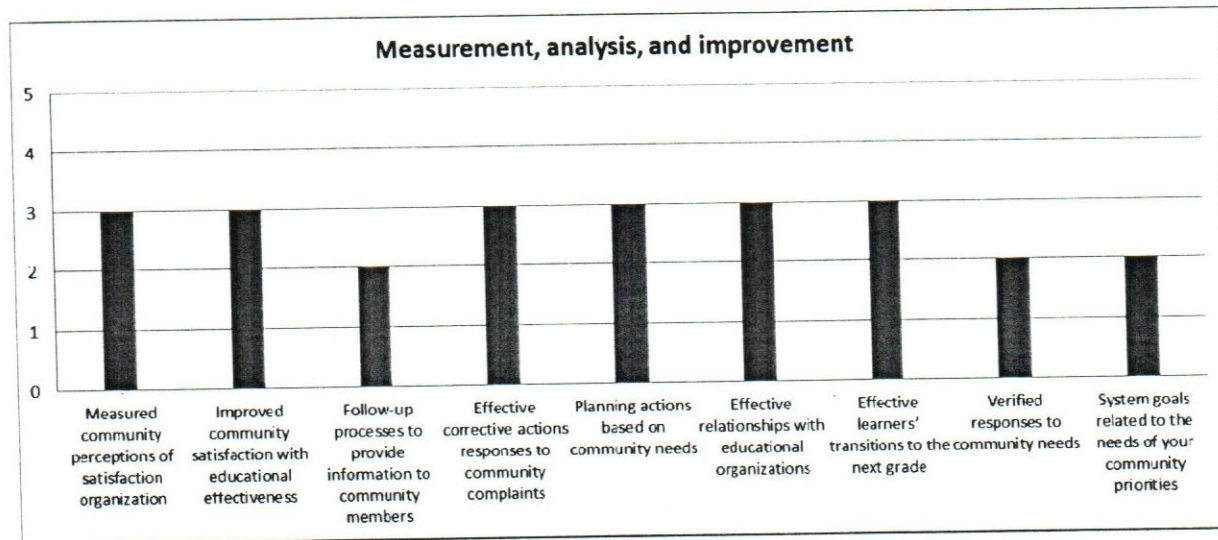


Figure (24): Measurement, analysis and improvement indicators

8. Organization: The Strategic Planning of the university Should be written and known by all staff As shown in Figure (25).

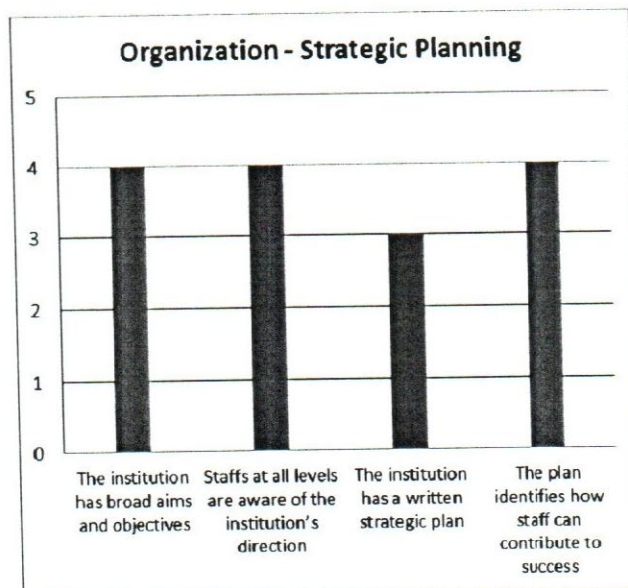


Figure (25): Organization – Strategic planning

9- Knowledge management: quality indicators are shown in Figure (26), where improvement is needed to managing knowledge through techniques such as learning stories.

A range of quality tools and techniques should be used to improve Quality techniques as well as teams should be formed to tackle quality issues as shown in Figure (27).

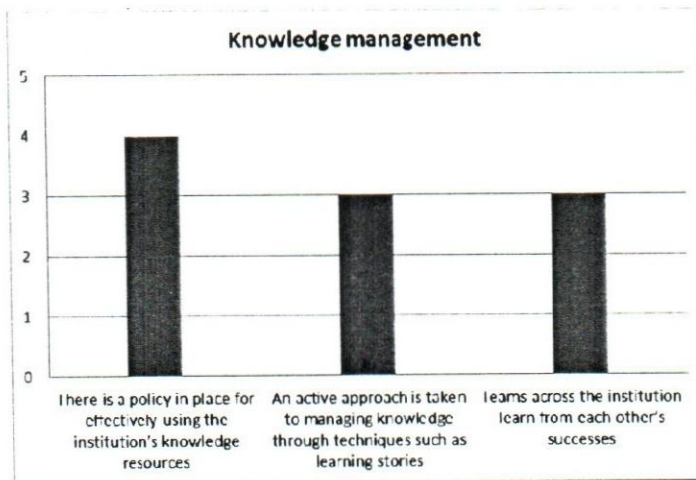


Figure (26): Knowledge Management

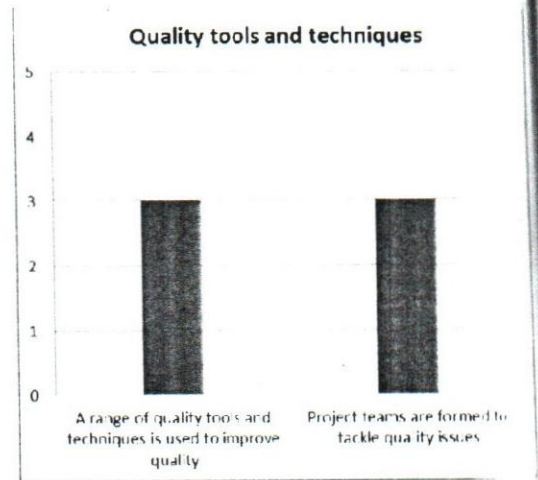


Figure (27): Quality Tools and techniques

Figure (28) represents the quality indicators for the organizational culture, where the organization should improve its commitment to peer evaluation and review and teamwork.

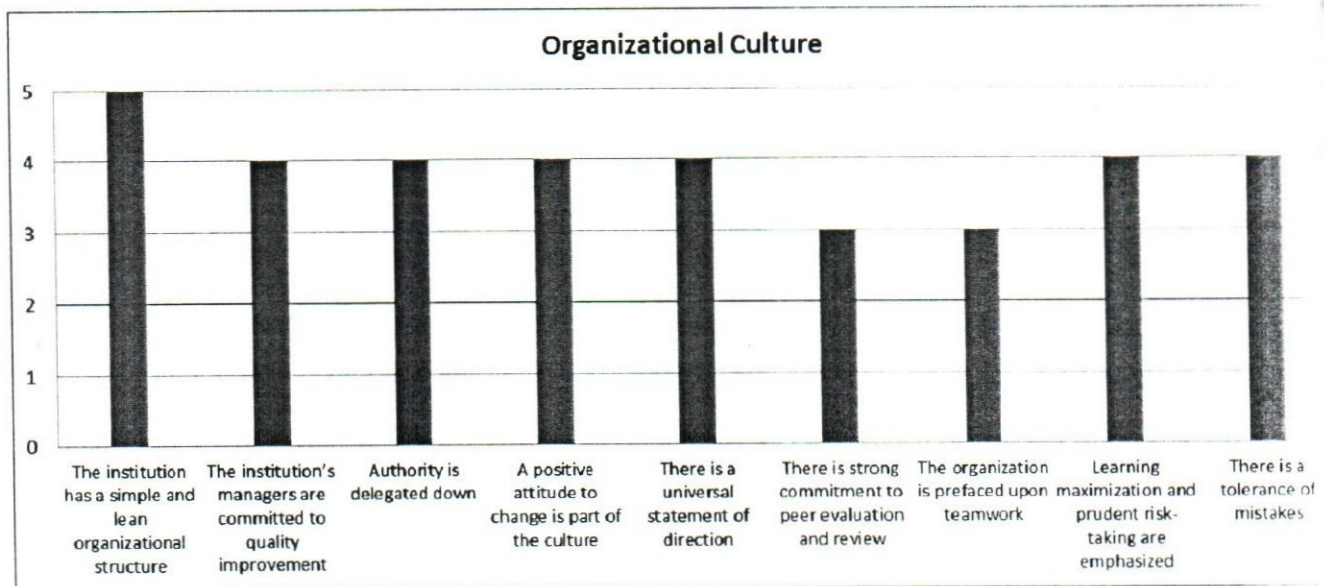


Figure (28): Organizational Culture

10- Communications indicators represents that it needs improvement for the mutuality in communications and the communications should be from bottom-up not just top-down.

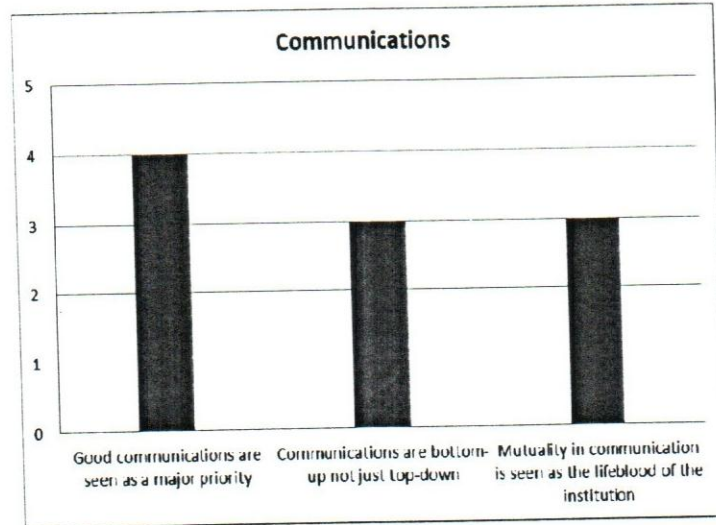


Figure (29): Communications indicators

11- Standards:

Hard standards: The quality indicators represents that the university should improve its hard standards for the following:

- The excellence exam for the successes students.
- The retention rates for the students.
- Effective use of resources and measures of value-added capabilities.
- The effective using of the budgetary control.

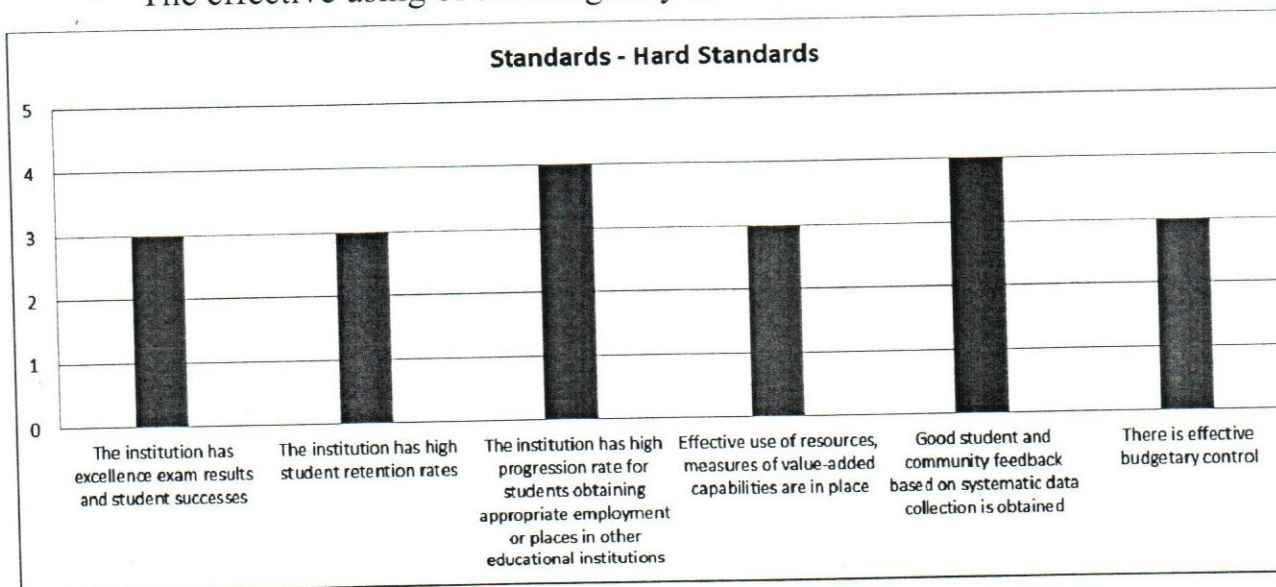


Figure (30): Hard Standards

Figure (31) represents the soft Standards which need improvements as well as benchmarking.

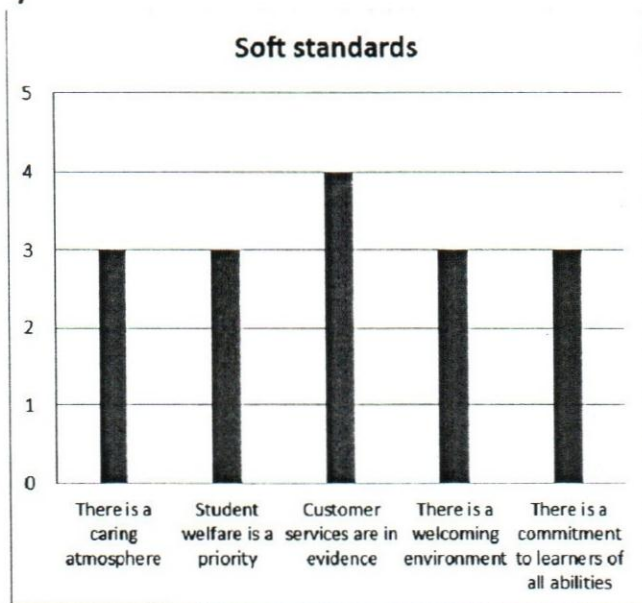


Figure (31): Soft Standards

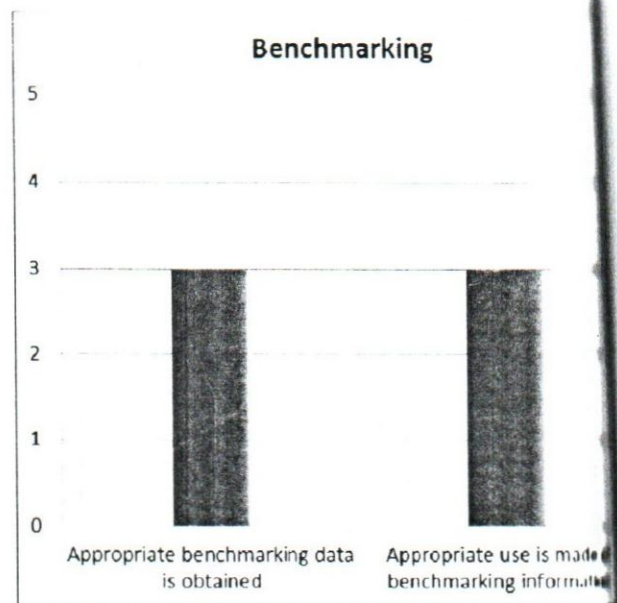


Figure (32): Benchmarking

Figure (33) represents the value added quality indicators, the university should use the value-added data as part of benchmarking, measure the value added to set students targets.

The self-assessment quality indicators represent that the university must cycle back data into improvement initiatives. The university has to put the self-assessment settings in place as shown in Figure (34)

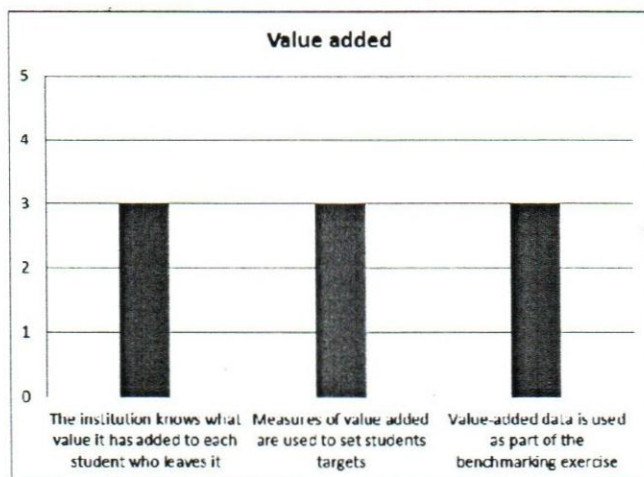


Figure (33): value added

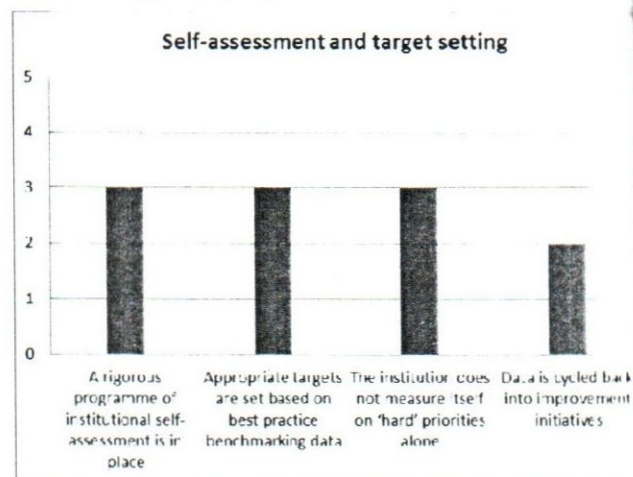


Figure (34): Self-assessment and target setting

General recommendations:

1. The LUHSAT university should improve its facilities to be adequate and Appropriate.
2. Services to customers generally need improvement, by availability of student consultants, pre-entry guidance, effective information's and working guidance.
3. The leading of innovation and creativity for leadership needs improvement.
4. Health and safety logs should be documented.
5. Quality costs indicators should be regularly monitored and reported.
6. The appropriateness of the curriculum is systematic and need concentration on the development of new courses and programme contents.
7. The appropriateness of the learning methods need improvements, teaching and learning strategy should be known by all staffs, reviewed and measured by a range of specified criteria and the recognition of prior learning should be available.
8. The institution formal system for review and evaluation need improvement.
9. Staffs need training in the skills of teamwork as well as improving their idea of the limits of their authority.
10. The following quality indicators need improvement:
11. Assessments of each learner's knowledge and skill.
12. Measures of each learner's motivation for meeting requirements.
13. Validation of curriculum to meet both career and education requirements, and Systematic monitoring of all processes related to each learner's proficiency.

Conclusions:

From the self-assessment questionnaire which had been done on LUHSAT, the obtained results have reflected to what extent are Libyan Private Universities applying requirements of ISO in Education IWA 2:2007 and ISO 9001:2015 standards in order to implement TQM. The obtained results represent that the LUHSAT needs more attention to the application of TQM. Several quality indicators had led to improve the system of work. The most important quality indicators should be improved such as services to customers, by availability of student consultants, pre-entry guidance, effective information's and working guidance, availability of adequate facilities, quality costs indicators should be regularly monitored and reported, validation of curriculum to meet both career and education in addition to systematic monitoring of all processes related to each learner's proficiency.

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