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Critical Success Factors of Total Quality Management and Private Universities Performance in Sudan The case of Ahfad University for Women

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المستخلص:

تتركز الأهداف الرئيسية لهذه الدراسة في التعرف على تحديد عوامل النجاح الحاسمة للجودة الشاملة التي تؤثر على أداء الجامعات الخاصة في السودان بالتطبيق على جامعة الأحفاد للبنات. إتبعت الدراسة المنهج الوصفى التحليلي وإستخدمت اللإستبانة كأداة لجمع البيانات مستهدفة الموظفيين الاكاديميين بجامعة الاحفاد للبنات. تم تطوير نموذج بحثى مستمد من مراجعة الأدبيات. تم توزيع عدد (150) استبانة ومن العدد الموزع فقط (94) إستبانة قابلة للإستخدام تمت إعادتها بمعدل إستجابة يبلغ (% 62). إستخدمت الدراسة الإحصاء الوصفى وتحليل الانحدار المتعدد لتحليل واختبار البيانات بما يتماشي وفرضيات الدراسة. اقترحت الدراسة الربعة فرضيات وفي تحليل الانحدار المتعدد تم دعم جميع الفرضيات بدرجات متفاوته من الدلالة والاهمية. توصلت الدراسة الي وجود علاقة ايجابية بين عوامل النجاح الحاسمة لادارة الجودة الشاملة والاداء التنظيمي للجامعات الخاصة في السودان. الموطفين الإداء التظيمي للجامعات الخاصة في السودان. اوصت الدراسة الموثرة على الاداء التظيمي للجامعات الخاصة في السودان. اوصت الدراسة والاداريين كما اوصت باستخدام منهجي البحث الكمي والكيفي ، وزيادة عدد متغيرات الدراسة للوصول الى نتائج يمكن تعميمها على جميع قطاعات التعليم العالى في السودان.

ABSTRACT:

The basic objectives of this study is to identify the Critical Success Factors (CSFs) of TQM practices that affecting the organizational performance of private universities in Sudan, by application on Ahfad University for Women. The study adopted the descriptive analytical method using the questionnaire as a tool for data collection targeting the academic staff of Ahfad University for Women. A research model derived from the literature review was developed. The questionnaire was distributed to 150 academic staff in the university, whereas out of the 150 questionnaires distributed only 94 usable questionnaires were returned, yielding a response rate of (62%). Descriptive statistics and multiple regression analysis were used to analyze and test the data collected in line with the hypotheses of the study. The study proposed four hypotheses to be tested, and in multiple regression analysis, all four hypotheses were supported

with varying degree of importance and significance. The study concluded that there is a significant positive direct relationship between CSFs of TQM and the organizational performance of private universities in Sudan. The study contributed greatly to the body of knowledge, as it provided a research model to be used for explaining the effect of the CSFs of TQM on organizational performance of private universities in Sudan. The study recommended that future researches should expand data to include a larger number of private and public universities as well as academic and administrative staff; in addition to using both quantitative and qualitative research methods; besides increasing the study variables to reach to results that can be generalized on all higher education sectors.

Keywords: Critical Success Factors, Total Quality Management (TQM), Ahfad University for Women, Organizational Performance.

Introduction:

Quality has a variety of definitions and a broad concept. For some, quality is linked to the meaning of superiority and excellence, and to others quality is an assurance that there are fewer services or products with defects, Quality is therefore linked to product features (Alzhrani et.al, 2016). The word "quality" is derived from Latin word "quails", which means "what kind of". It connotes a variety of meanings and implies different things to different people (Zakuan et.al 2012). Total Quality Management (TQM), has been described as a management philosophy and a system focusing on continuous improvement and customer satisfaction and excellent organizational performance (Zakuan et.al. 2012). According to Witcher (1990), TQM is composed of three terms: Total: meaning that every person is involved including customer and suppliers, Quality: implying that customer requirements are met exactly, and Management: indicating that senior executives are committed. In'airat and Al-Kassem, (2014), maintained that, TQM has been exceedingly acknowledged and successfully implemented in many organizations, providing them with the competitive advantage in international and in local markets through the creation of high quality services or products to satisfy the needs of the customers. Moreover Todorut (2013), stated that benefits of TQM implementation also include: innovation, financial potential, and opportunities of innovation, better control of processes in the design, planning, distribution field, bigger flexibility, high quality services and strength of the position on the market.

The importance of education for the development of excellence, expertise and knowledge, leading to overall development, cannot be undermined; this necessitate a sound strategy for the development of higher education in almost all countries of the world (Ali and Kumar, 2010). The World Bank study of a 190 countries reveals that it is higher education that helps in enriching the quality of man-power and it is a basic investment, necessary to improve the overall quality of life for the nation (Ali and Kumar, 2010). Providing quality services from Higher Education Institutions (HEIs) is the key to differentiate between competitors as well as ensuring sustainability for a long period (Govender et.al 2014). According to Nadim and Al-Hinai (2016), quality in education is a vital issue because (HEIs) are accountable to several stakeholders such as students, society and other. Also, quality of (HE) is one of the most significant

aspects of the creation of knowledge, human resource development and social force for any country.

In many countries and many cultures the issue of quality management has been firmly on the agenda of higher education institutions (HEIs) for quite some time. A lot of reports have documented the advantages of adopting TQM in HEIs (Tsinidou et al., 2010).). It is education that develops expertise, excellence and knowledge that lead to the overall development of any economy. (Ali et al., 2010). The success of higher education institutions (HEIs) depends on how the educational leaders work to implement the TQM strategies (Ali and Kumar 2010). There are several experiences with TOM in higher education worldwide in The United States of America the first attempt to implement TQM in US higher education began in (1985), the movement spread quickly then. There are many success stories in the US. And the experiences of some US higher educational institutions proved that the effects of using TQM in higher education are predominately positive (Motwani et.al.1997). In the United Kingdom, the literature reviewed showed that with the application of TQM in higher education, early (1990), there was an increase in enrollment and a decrease in administrative costs with the saved money being shifted from administrative spending to curriculum development (Ghadwich.1995). Quality assurance processes in African higher education are a very recent phenomenon and very few countries have established structured national quality assurance mechanisms (Lamine and Matero, 2007). According to MacGregor (2015), the World Bank have been the largest external financier for African higher education institutions and its commitments to higher education represent about 20% of the investment in Africa, there is a need to ensure that Africa can build its future which starts with higher education, with good research centers, with applied science and there is an urgent need for Africa to build quality and capacity in universities. Ewen A.H (2018), stated that the wealth- or poverty- of nations depends on the quality of higher education which is in a state of financial crisis.

A range of Quality Management Models developed for industry which have been adopted or tested within HEIs on a global basis (Farooq *et.al* 2007). Examples of such Models are Model for quality management in Higher Education, (Srikanthan and Dalrymple (2004) Australia; Excellence model, (Pires da Rosa *et al.*, 2003) Portugal; Academic award model (Badri and Abdulla 2004) UAE.; Performance measures for academic departments (Al-Turki and Duffuaa 2003), Saudi Arabia; Quality Management Framework (Grant *et al.*, 2004) USA; ISO-based TQM model (Borahan and Ziarati 2002) Turkey.

Critical Success Factors (CSFs) of total Quality Management had been defined by In'airat and Al-Kassem (2014), as the significant fields of exercise that have to be carried out well in order for an organization to accomplish its target. Zakuan *et al.*, (2012), stated that (CSFs), such as teamwork, leadership and management commitment, communication, continuous improvement, employee involvement, total customer satisfaction and training, positively influence the performance of Higher Education Institutions (HEIs). Pushpa (2016), stated that according to several studies in Arab countries, there are seven (CSFs) to a successful TQM implementation such as:

vision and plan statement, employee involvement, customer focus, reward and recognition, education and training, commitment of top management and quality management supplier. Sharma, *et.al* (2014), maintained that there are six required critical factors for a suitable implementation of TQM: Management commitment, culture, continuous improvement, cooperation, customer focus and control. To sum up, we can say that literature related to CSFs of TQM, suggests that top management and leadership support, training, process management, employees involvement & empowerment, continuous improvement, organizational culture are the overall most common, important and critical success factor in the implementation of TQM.

Several previous studies have highlighted the effect of Total Quality Management application on performance of higher education. For example, the study of Mashagba (2014), titled "The Impact of Total Quality Management on the Efficiency of Academic- Performance (Empirical Study), concluded that there is a positive impact for the application of the principles of TQM on the efficiency of academic performance." The study of Zakoun et.al (2012), titled "CSFs of Total Quality Management implementations in higher education (A REVIEW)", concluded that TOM leaves excellent impact on institution goals, enhance economic value, brings wide changes in organizations. TQM approach has a positive impact on institutions performance. The study of Osman E. (2015), "titled "The impact of strategic planning in adoption of Total Quality concepts in Sudanese Higher education compared to the Malaysian Experience". The study concluded that Strategic planning is neglected in Sudanese universities and due to lack of funding, international standards are not applied in educational system; Sudanese Universities do not provide any source of evaluation and follow-up. The study of Hamza A. (2011), titled "Application of Total Quality Management in Sudanese universities", concluded that there is no statistically significant relationship between applying TQM in Sudanese Universities and the treatment of students as main customers by the Universities, also treatment of the university to its employees as its main internal customers. The study of Murad Ali and Rajesh Kumar (2010), "titled "Implementation of Total Quality Management in Higher Education". The study concluded that TQM can be applied to H.E. but must modify to recognize unique aspect of education; benefits of TQM includes, high employees' morale, better teamwork.

Ahfad University for Women (AUW), is chosen as a case for the study. The university is situated in Omdurman, Sudan, spreading over around 80,000 square meters. The campus has 21 buildings including faculties and administrative buildings, one library and the Medical Centre. (AUW Undergraduate catalogue 2017/18). The goal and philosophy of AUW are to prepare women to assume responsible roles in families, communities, and in the nation using a combination of well-articulated academic courses, on-the-job training, individual research, and community extension activities. Ahfad University for Women (AUW), serves approximately (6600) undergraduates and (352) postgraduate. Students are enrolled in one of its seven schools and institute. These are as follows: School of Health Sciences (1966), School of Psychology and Preschool Education (1967), School of Management Studies (1977), School of Rural Extension Education and Development (1979), School of Medicine (1990), School of

Pharmacy (1995), School of Languages (2015), The Regional Institute of Gender, Diversity, Peace and Rights, Ahfad Centre for Science and Technology (ACST), Ahfad Faculty and Staff Development Centre (AFSDC), Family Health Centre (AFHC), Trauma Centre (ATC), Early Childhood Development Centre (ECDC), Gender and Reproductive Health and Rights and Advocacy Centre (Grace), Nutrition and Health Centre for Training and Research (NHCTR), Babiker Badri Scientific Association for Women Studies. (AUW Undergraduate catalogue 2017/18). In August 2015, the Quality Assurance and Institutional Assessment (QAIA) Office was established with specific terms of reference and under direct auspices of the President Office, as a central body for compiling institutional data on academic quality and institutional assessment. Its vision is becoming an essential contributor in AUW strategies for sustaining and advancing academic and research excellence, as well as administrative systems in a manner that serves continued enhancement and global quality assurance and accreditation imperatives (AUW QAIA Departmental Manual 2016).

Based on the literature, we can say that in many cultures the issue of quality management has been firmly on the agenda of higher education institutions (HEIs) and reports have documented the advantages of adopting TQM in (HEIs), so the success of higher education institutions (HEIs) depends on how the educational leaders work to implement the TQM strategies. Therefore, the aim of this study is to investigate the Critical Success Factors of Total Quality Management and its effects on the performance of private universities in the Sudan.

Materials and Methods:

In this study, Ahfad University for Women, was selected purposively for several reasons (i) it is a Sudanese private university (ii) it kept up- to- date with developments in TQM practices (iii) it fulfilled the criteria of a private higher education institution which adopted recent and advanced management technology.

The study deployed a quantitative research approach and the data was collected from academic staff members, using a questionnaire, then a research model derived from the literature review was developed. The model was constructed in context that reflects the essential critical success factors (CSFs) of TQM practices affecting the organizational performance of private universities in Sudan. The questionnaire was distributed to 150 academic staff in Ahfad University for Women. Out of the (150) questionnaires distributed, only (94) usable questionnaires were returned, yielding a response rate of (62%).

Results:

The data obtained from questionnaire revealed that (69%) of the study sample are females compared to (31%) males. The results also showed that (41%) of the sample are in the age group (20-30) years old, while (28%) are (31-40) years and (27%) are in the age group (41-50)years old. The results also showed that, Master degree holders (49%), PhD (29%), while only (12%) are bachelor degree holders. Also, find that (82%) of the sample are Academic, while (19%) are Top management. Regarding years of experience we find that (62%) have experience of (10-15) years, while (30%) have (more than 15) years working experience. It was found that (60%) of the sample members are married while (40%) are single.

Table (1): Employee's awareness with TQM, descriptive statistics

Number	Items	Mean	Std. Deviation
1.	The selected sample understand the concept of total	4.28	.768
	quality management		
2.	The selected sample is aware of the principles of total	4.23	.725
	quality management		
3.	The selected sample is involved in laying the foundation	4.17	.838
	for quality management in the university		
4.	The selected sample participates in developing the vision	4.39	.643
	and mission of the university		
	Over All	4.26	.743

Source: researcher's data collected through questionnaire, 2018

Table (1) showed that the average mean corresponding to (4.26), which is located in the fifth of the five-scale categories ranging from (4.20 to 5.00), which indicates the option "strongly agree". The values of the arithmetic averages for this dimension ranged between (4.17 and 4.39), which are generally high. The level of evaluation of the arithmetic mean of the vertebrae was also high. The standard deviation of these averages is very small, in item 4 entitled "The selected sample participates in developing the vision and mission of the university" was ranked first with an average of (4.39), followed by item 1 entitled "The selected sample understand the concept of total quality management" (4.28), and then item 2 entitled "The selected sample is aware of the principles of total quality management" came in third place with a mean average of (4.23) and finally item 3 entitled "The selected sample is involved in laying the foundation for quality management in the university", with mean average of (4.17).

Table (2): Continuous Improvement descriptive statistics

Number	Items	Mean	Std. Deviation
1.	The university is working on the development and	4.43	.631
2.	improvement of performance to achieve excellence. Different committees are concerned with performance audit philosophy to ensure continuous improvement	4.11	.933
3.	process. The university depends on continual assessment and customer feedback to enhance continuous improvement	4.12	.902
4.	process. Continuous improvement is a means towards gaining a competitive advantage for the university.	4.45	.713
	Over All	4.27	.794

Source: researcher's data collected through questionnaire, 2018

Table (2) showed that the average mean corresponding to (4.27), which is located in the fifth of the five-scale categories ranging from (4.20 to 5.00), which indicates the option "strongly agree". The values of the arithmetic averages for this dimension ranged between (4.11 and 4.45), which are generally high and the arithmetic mean of the vertebrae was also high. The standard deviation of these averages is very small, in item 4 entitled "Continuous improvement is a means towards gaining a competitive advantage for the university" was ranked first with an average of (4.45), followed by item 1 entitled "The University is working on the development and improvement of performance to achieve excellence "average (4.43).

Table (3): Organizational Culture and Environment descriptive statistics

Number	Items	Mean	Std. Deviation
1.	The university is making great effort to improve the	4.31	.640
	internal environment.		
2.	The university population includes different cultures.	4.38	.749
3.	The university cares about local cultures and help to	4.46	.728
	develop them.		
4.	There is no conflict between different cultures and the	4.35	.634
	concept of Total Quality.		
5.	Internal environment and university culture contribute to	4.33	.629
	establishing a Total Quality culture.		
	Over All	4.36	.676

Source: researcher's data collected through questionnaire, 2018

Table (3) showed that the average mean corresponding to (4.36), which is located in the fifth of the five-scale categories ranging from (4.20 to 5.00), which indicates the option "strongly agree". The arithmetical averages of this axis ranged from (4.31 to 4.46), which are generally high and the arithmetic mean of the vertebrae was also high. The standard deviation of these averages is very small. In the first place comes item 5 entitled "Internal environment and university culture contribute to establishing a Total Quality culture" (4.33), while item 4 entitled "There is no conflict between different cultures and the concept of Total Quality" (4.35) comes in second place and finally item 1 entitled "The university is making great effort to improve the internal environment." (4.31).

Table (4): Organizational Performance descriptive statistics

	Items	Mean	Std. Deviation
1.	The university has good reputation and image in scientific circles locally and globally	4.60	.535
2.	The applications of Total Quality management contribute in achieving a competitive position for the university	4.46	.634
3.	The university has a healthy and favorable working environment for employees to perform their jobs and increase productivity	4.39	.793
4.	Total Quality management applications help to attract customers and achieve the desired targets	4.45	.697
5.	The university put a great effort to retain its employees and students	4.34	.797
	Over All	4.44	.691

Source: researcher's data collected through questionnaire ,2018

Table (4) showed that the average corresponding to (4.44), which is located in the fifth of the five-scale categories ranging from (4.20 to 5.00), indicating the option "strongly agree" and reflecting the approval of the study sample on the effect of Critical Success Factors of TQM on Organizational Performance. The values of the arithmetic averages for this dimension ranged between (4.34 and 4.60) all of which are in the fifth category, indicating "strongly Agree". The item 1 entitled "The university has good reputation and image in scientific circles locally and globally " was ranked first with an average of (4.60), followed by item 2 entitled "The applications of Total Quality management contribute in achieving a competitive position for the university " (4.46), and item 4 entitled "Total Quality management applications help to attract customers and achieve the desired targets" came in third place with a mean average of

(4.45), to reflect the great effect of CSFs TQM on Organizational Performance of private universities in Sudan.

Hypothesis Results:

H1: there is a statistically significant relationship between critical success factors of TQM and the performance of Sudanese private universities

Table (5): the effect of critical success factors of TOM on the performance of Sudanese Private Universities

Variables	R	R Square	F -value	Sig	В	T-Value	Sig
employees 'awareness	.818	.703	152.07	.000**	.723	10.818	.000**
continuous improvement					.846	14.425	.000**
organizational culture and					.887	16.109	**000
environment							

Source: researcher's data collected through questionnaire, 2018

The correlation between Critical Success Factors (CSFs) and their effect on performance of.

Sudanese Private Universities was shown in table (5). The results of the multiple regression analysis showed a significant effect of these variables on the performance. The values of R Square for the model was (.703), which explains that 70% of the change in the performance of the university is due to Critical Success Factors (CSFs), namely (employees' awareness of quality management, continuous improvement, culture and environment of the university). This effect is statistically significant (Fvalue=152.07, sig =.000** Less than 0.05). Therefore, hypothesis ONE is supported, there is a statistically significant relationship between critical success factors of TQM and organizational performance of Sudanese private universities.

H2: there is a statistically significant relationship between employees 'awareness with total quality and the performance of Sudanese private universities.

Table (6) The effect of employees 'awareness with total quality on the performance of Sudanese Private Universities

R	R Square	F –value	Sig	В	T-Value	Sig
.745	.668	109.11	.000**	.742	16.689	.000**

Source: researcher's data collected through questionnaire, 2018

The results from table (6) showed that there is a statistically significant relationship between employees' awareness with TQM and the performance of Sudanese private universities. The value of the correlation level is (R=.745) (F-value = 109.11), (R square .668), this explains that 67% of the change in the performance of the university is due to employees 'awareness; therefore, hypothesis TWO is supported, there is a statistically significant relationship between employees 'awareness with total quality and the performance of Sudanese private universities.

H3: there is a statistically significant relationship between continuous improvement and performance of Sudanese Private Universities.

Table (7): The effect of continuous improvement on the performance of Sudanese Private Universities

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R	R Square	F –value	Sig	В	T-Value	Sig	
.877	.712	117.21	.000**	.875	14.186	.000**	

Source: researcher's data collected through questionnaire, 2018

The results from table (7) showed that there is a statistically significant relationship between continuous improvement and the performance of the organization. The value of the correlation level is (R=.877) (F-value = 117.21), (R square=0.712), which explains that 71%, of the change in organizational performance is due to continuous improvement; therefore, hypothesis THREE is supported, there is a statistically significant relationship between continuous improvement and the performance of Sudanese private universities.

H4: there is a statistically significant relationship between organizational culture and environment and performance of Sudanese private universities

Table (8): The effect of organizational culture and environment on the performance of Sudanese Private Universities

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R	R Square	F –value	Sig	В	T-Value	Sig
.857	.722	241.218	.000**	.855	16.904	.000**

Source: researcher's data collected through questionnaire, 2018

The results from table (8) show that there is a statistically significant relationship between the organizational culture and environment and performance of Sudanese private universities. The value of the correlation level is (R= .857) (F- value 241.2), (R square= 0.722). Which explains that 72%, of the change in organizational performance is due to organizational culture and environment. Therefore, hypothesis FOUR is supported, there is a statistically significant relationship between organizational culture and environment and the performance of Sudanese private universities.

Discussion:

- 1. The study proposed four variables and hypothses to be tested and in multiple regression analysis, all 4 hypothses were supported with varying degree of importance and significance.
- 2. The results revealed that critical success factor of total Quality Management have a significant positive effects on the performance of private universities in Sudan so that hypothesis one is supported. The results showed that (70%) of change in performance is due to (CSFs), refer to table (5). This results is supported by the work of In'airat and Al-Kassem (2014), Zakuan et.al (2012), Sharma, et.al (2014). In'airat and Al-Kassem (2014) stated that (CSFs) are the significant fields of exercise that have to be carried out well in order for an organization to accomplish its target while Zakuan et al., (2012), claimed that (CSFs), such as teamwork, continuous improvement, employee involvement, positively influence the HEIs performance, whereas Sharma, et.al (2014), maintained that there are six required critical factors for a suitable implementation of TQM: commitment, culture, continuous improvement, cooperation, customer focus and control.
- 3. The most significant critical success factor affecting performance of private universities in Sudan was organizational culture and environment, refer to (table 8). The results showed (R square = 0.72), which means that 72% of the change in university performance is due to organizational culture. These results are supported by the work of Bendermacher et.al (2017), Maroofi et.al (2012). Bendermacher et.al (2017), stated that higher education institutions should nurture a 'quality culture' which acts in synergy to continuously improve education, whereas Maroofi et.al (2012), maintained that organizational culture influences and is affected by the quality

management implementation, employees' beliefs and outlooks change as a result of quality improvement principles and practices in their jobs which lead to change in the Organizational culture.

- 4. The second most important Critical Success Factor was continuous improvement refer to (table 7). The results showed (R square = 0.71), which means that 71% of the change in organizational performance is due to continuous improvement. These results are supported by the work of Al-Damen (2017), Ali and Kumar (2010). Al-Damen (2017), stated that continual improvement is a major component of TQM and it leads to improved and higher quality processes and it is designed to ensure efficient and effective utilization of the resources of the organization and to achieve a quality driven culture. Moreover, Ali and Kumar (2010), claimed that important benefits of TQM adoption are: increased employee confidence, continuous improvement and development, better quality, bridge of faculty-staff's functions and better teamwork.
- 5. The third most important Critical Success Factor was employees awareness with TQM refer to (table 6). The results showed (R square =0.67), which means that 67% of the change in organizational performance is due to employees awareness with TQM. These results are supported by the work of Talib et.al (2011), Sadikoglu and Olcay (2014). Talib et.al (2011), found that there is strong connection between employees' awareness with TQM concepts and successful implementation and believed that TQM is a way of guaranteeing high quality products and services therefore organizations should invest in TQM since this could help them increase their competitive position in the market. On the other hand, Sadikoglu and Olcay (2014), maintained that lack of employees' awareness with TQM and their commitment is the main obstacle for successful TQM implementation programme.

Conclusion and Recommendations:

- 1. The study concluded that there is a significant positive relationship between Critical Success Factors of TQM and organizational performance of Sudanese private universities. The results from table 4 item 2, showed that "applications of Total Quality management contribute in achieving a competitive position for the university (4.46) and item 4 showing that "Total Quality management applications help to attract customers and achieve the desired targets came in third place with a mean average of (4.45), to reflect the great effect of CSFs TQM on Organizational Performance of private universities in Sudan.
- 2. The results from table 3 item 5, showed that "Internal environment and university culture contribute to establishing a Total Quality culture" average (4.33), while item 4 stated, " There is no conflict between different cultures and the concept of Total Quality" average (4.35).
- 3. The results from table 2 item 4 revealed that "Continuous improvement is a mean towards gaining a competitive advantage for the university" with an average of (4.45) and item 1 stating that "The University is working on the development and improvement of performance to achieve excellence(4.43).

The study recommended the followings based on the findings and results:

4. Future researches should expand data base to include more universities from private and public sectors.

- 5. The study also recommend targeting both administrative as well as academic staff of the studied universities.
- 6. Future research should examine other factors that may affect the relationship between Critical Success Factors and organizational performance, such as external environmental factors.
- 7. The study's findings only reflect the situation regarding Critical Success Factors of TQM at a particular moment in time. Future studies may be conducted using the longitudinal approach to investigate the short- and long-term effects of Critical Success Factors of TQM on organizational performance of higher educational Institutions.
- 8. Future studies could use both quantitative and qualitative research approaches and increase research variables so that the research findings could be generalized.

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