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Investigation of the Challenges of Quality Management System ISO 9001:2015 at Public and Private Sector Universities

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Abstract

The purpose of the present comparative study is to investigate the challenge as the perception of HODs related to quality management system ISO 9001:2015 at public and private sector universities. This study is descriptive and exploratory in nature. The population consisted of all the HODs from public and private sector universities of Punjab, Islamabad, and Khyber-Pakhtunkhwa. Through simple random sampling, twenty-eight HODs are selected randomly. Data is collected through a self-develop questionnaire. The analysis of the data found that ten challenges for the successful implementation of quality management systems in universities. Moreover, there is no significant difference found between HODs perception regarding challenges in the successful implementation of ISO9001:2015 in public and private sector universities. After ranking the responses in public sector universities top challenge is the existence of accreditation and in private sector universities lack of top management, commitment is top of the list. The study suggests that HEC formulate a strategy for meeting the ISO requirement for the superior quality of service for international certification. The study also contributes knowledge in the area of the quality management system and provides awareness for the policymaker, top management personnel of universities, faculty members, HEC, and different funding bodies about existing challenges in the implementation of international standards in Pakistani universities.

Key Words: *ISO 9001:2015, Challenges, Universities, Quality Management System.*

Introduction

Quality management is a philosophy of management, which leading the organization for getting the best results in the form of profits, performance, and productivity by increasing the image of the organization in society (Salameh, Alzyadat & Alsnour, 2011). Many factors are involved in enhancing the public concern regarding the quality of higher education institutions that leading toward quality of measurement devices like quality audits, program performance, and accreditation of institution assessment for the private sector (Sarrico, Rosa & Teixeira & Cardoso 2010). This lead to the emergence of debate on the applicability of the principle of quality management system tools, methodologies to the higher education sector. Several voices related to the non-applicability of management theories as they derived from industry and nothing concerning with higher education (Maassy, 2003; Pratasavitskaya & Stensaker 2010). Oduor (2014) found a significant relationship between ISO 9001 certification and public sector institution performance. Suleman & Gul (2015) conducted a study on public sector secondary school TQM successful

implementation in district Kohat. Shafiq (2012) conducted studies on business excellence framework and quality management systems. Sumaedi & Yarmen (2015) studied ISO 9001 implementation for manufacturing food companies. Globalization, context need to build high-class standards for universities (Ashraf, 2019). Among the world's best systems of education, the Pakistani higher education system doesn't rank anywhere in terms of quality. The quality of higher education depends on many factors like teachers, appropriate education, courses, learning environment, skills, infrastructure, courses, feedback, and observation system (Ahsan Nisar, 2019). Since independence, the education system of Pakistan facing many challenges like inadequate infrastructure, low rate of enrollment, lack of enthusiasm of students, low research standards, gender crimination, and lack of academic teachers (Salik & Zhiyong, 2014). Pakistani universities try to solve these problems through the application of a modern quality management system, but applications meet some obstacles. This study was conducted to find out the challenges that are responsible for the implementation of ISO 9001:2015 in universities. The study was delimited to public and private sector HODs perception related to universities of Punjab, Islamabad, and Khyber-Pakhtunkhwa. This study will be significant for the policymaker, top management personnel, vice-chancellor, registrars, dean, and faculty members of universities. Moreover, different funding bodies and ISO teams for knowing the challenges that are responsible for the implementation of ISO 9001:2015 in universities. The current higher education system is non-market framed. Pakistan regulatory innervations and whole government policies, not gearing universities to market principles and needs (Education policy, 1998-2010).

Objectives

- To the comparative analysis of the challenge as the perception of HODs related to quality management system ISO 9001:2015 at public and private sector universities.
- To explore the challenge that is highly responsible for successful implementation of ISO 9001:2015 in public and private sector universities from HODS perceptive.

Literature Review

Fellow challenges were found in the literature.

Commitment of Top Management

In universities, top management is the decision-makers like the Dean, director, rectors, president, vice-chancellors, board of directors, etc. One of the key challenges of top management commitment in universities (Trivelias et al, 2012). Yusuf et al. (2007) added that for successful implementation of QMS vital factor is effective leadership because it ensures better performance. Lack of management commitment causes many problems. Without effective management, it is impossible to reform the organization's culture and the environment because effective management devises appropriate strategies and promotes a clear mission. The commitment of top management assists to adopt a clear direction for working and functioning (Pheng & Teo, 2004; Suleman & Gul, 2015).

Time Management

University professors, staff, deans, instructors, and other personnel overloaded with administrative and educational tasks and duties. As multi-tasking is their routine work, it seems a challenge. The best way to tackle and address this issue is to give jobs to new, well-prepared, and motivated staff for ISO QMS implementation (Hussein et al; 2017).

Resistance to Change

Boiral (2003) found a resistance that related to ISO standards and the process of certification. Ahmed et al (2006) define that resistance to change as related to the impedance to implementation that is the new one. It is very essential to take note that faculty members in the universities take a change for granted. Karapetrovic (1998) defines that a quality management system improves the university environment. Mixed views were noted regarding the documentation. The quality management system provides many benefits to individuals, professors, and staff members. Hussein (2014) describes that resistance to change is very much stored in the sector of universities than any other organization because it is directly related to people who may not accept criticism in their work or style of work. After all, they are considered good as compared to others as they are related to the education field. This may go toward ineffective management failed to establish a quality culture and resistance to change for implementation of the QMS.

Existence of Accreditation

It is confusing for some universities that the accreditation system will replace the present QMS. Hussein et al (2017) describe that QMS in universities will be helpful in fast-tracking the certification of ISO 9001. Thandapani et al. (2011) describe that universities are aware of the benefits of certification in the fact growing advantages and admire certification.

Lack of Workforce Cooperation

Psychogios & Priporas (2007) define the importance of workforce involvement and cooperation in QMS, administrative structure, people involvement, team committee approach and system are important for QMS implementation. University core services departments and academics are not involved (Corbett & Rastrick, 2000). Moturi & Mbithi (2015) highlighted the commitment of staff and involvement of people.

Lack of Funding

For the certification, process funding is very much important, like training and resources, payment of external consultants (Arora, 1996). Because of insufficient funding certification was discontinuous (Zgodavova et al, 2017).

Lack of Professional Training

Al-Najjar & Jawad (2011) define that necessary training provides help in improving the performance of staff. Training should be given based on the training needs of staff and faculty members (Hussein et al, 2017).

Lack of Awareness

Lack of awareness is related to standards and requirements of ISO implementation. Quality is not a science or theory that can be taught to others, it is a culture that should be lived. Certification in any organization increases through awareness (Kothar & Lal Pradhan, 2011). It is an essential factor for QMS implementation that includes many problems such as staff members, faculty participation, and level of cooperation (Mehfooz & Saeed Lodhi, 2015).

Lack of Resources

Resources is one of the important element of ISO 9001 fine implementation in universities. Resources may include (human such as faculty members, human power and staff) financial (as supplies, money, and machines) which is essential for an organization, scheduling and controlling the task. One of the key requirements of ISO 9001 is resources management. Which is essential for ISO 9001 implementation in universities (Hussein et al, 2017). Recourses, the suitable culture of the organization, effective curriculum, subordinate cooperation, employee needs, and satisfaction are essential for TQM implementation (Suleman & Gul, 2015).

Inappropriate University Culture for Implementation of QMS

For quality management implementation of ISO 9001 appropriate university culture is essential. Implementation of QMS employs a cultural change through different strategies that include a focus on information, internal audits, and measurement (Alalfy & Abo-Hegazy, 2015).

Hypothesis

There is no significant difference between the challenges of HODs perception related to ISO 9001:2015 quality management system in universities.

Methodology

This research study was based on a descriptive survey design. HODs from Punjab, Islamabad, and Khyber Pakhtunkhwa universities were selected randomly. Sample from the population was drawn through simple random sampling. 14 universities in which seven from private and seven from the public were selected randomly. The sample consisted of 28 HODs in which (14) from public and (14) from private universities were selected randomly.

Based on extensive literature, a self-develop questionnaire was used that is based on a five-point Likert scale (1-5; from strongly disagree to strongly agree). Before the actual collection of data, a pilot study was conducted for validity and reliability purpose. Five experts validate the questionnaire. Rahaman (2001) added that in repeated measure consist outcome provided. Saraph et al. (1989) 0.6 is also acceptable in exploratory studies. Furthermore, 0.7 is an acceptable level of Cronbach alpha. Internal consistency was measured through SPSS. Reliability was .898. That extracted with Cronbach alpha based on expert views and results of reliability. The researcher made some changes and improvements in the questionnaire based on expert view and results of Cronbach alpha. Data were collected through personal visits and email. Anonymity and confidentiality are assured to all subjects. It is assured to respondents that without any hesitation and prejudices they respond to the questionnaire with the help of t-test data was analyzed.

Results

Table 1. Lack of top management commitment (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	4.35	.63	-0.98	26	0.335
Private	14	4.57	.51			

Table 1 elaborates that the result of the t-test was found (-0.98). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=4.35, SD=.63) and private universities (mean=4.57, SD.51=) agreed that lack of top management is a challenge for the implementation of ISO 9001:2015.

Table 2. Time management (N= 28)

Sector	N	Mean	St.Dev.	t-value	Df	Sig
Public	14	3.50	1.55	0.597	26	0.556
Private	14	3.14	1.61			

Table 2 shows that the result of the t-test was found (0.597). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=3.50, SD=1.55) and private universities (mean=3.14, SD=1.61) agreed that time management is a challenge for the implementation of ISO 9001:2015.

Table 3. Resistance to change (N= 28)

Sector	N	Mean	St.Dev.	t-value	Df	Sig
Public	14	4.28	0.61	1.000	26	0.327
Private	14	4.00	0.87			

Table 3 depicts that the result of the t-test was found (1.000). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=4.28, SD=0.61) and private universities (mean=4.00, SD=0.87) agreed that Resistance to change is a challenge for the implementation of ISO 9001:2015.

Table 4. Existence of accreditation (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	Sig
Public	14	4.50	0.51	0.589	26	.561
Private	14	4.35	0.74			

Table 4 elaborates that the result of the t-test was found (0.589). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=4.50, SD=0.51) and private universities (mean=4.35, SD=0.74) agreed that Existence of accreditation is a challenge for the implementation of ISO 9001:2015.

Table 5. Lack of cooperation of workforce (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	Sig
Public	14	4.14	0.77	1.110	26	0.277
Private	14	3.64	1.49			

Table 5 shows that the result of the t-test was found (1.110). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=4.14, SD=0.77) and private universities (mean=3.64, SD=1.49) agreed that Lack of cooperation workforce is a challenge for the implementation of ISO 9001:2015.

Table 6. Lack of funding (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	3.85	1.29	-1.265	26	0.217
Private	14	4.42	1.08			

Table 6 depicts that the result of the t-test was found (-1.265). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=3.85, SD=1.29) and private universities (mean=4.42, SD=1.08) agreed that Lack of funding is a challenge for the implementation of ISO 9001:2015.

Table 7. Lack of proper professional training (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	3.78	1.31	-.929	26	0.361
Private	14	4.21	1.12			

Table 7 elaborates that the result of the t-test was found (-.929). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=3.78, SD=1.31) and private universities (mean=4.21, SD=1.12) agreed that Lack of proper professional training is challenging for the implementation of ISO 9001:2015.

Table 8. Lack of awareness (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	3.85	1.35	0.648	26	0.522
Private	14	3.50	1.55			

Table 8 illustrates that the result of the t-test was found (0.648). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=3.85, SD=1.35) and private universities (mean=3.50, SD=1.55) agreed that Lack of awareness is a challenge for the implementation of ISO 9001:2015.

Table 9. Lack of Resources (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	4.07	0.73	.712	26	.483
Private	14	3.78	1.31			

Table 9 shows that the result of the t-test was found (.712). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=4.07, SD=0.73) and private universities (mean=3.78, SD=1.31) agreed that Lack of Resources is a challenge for the implementation of ISO 9001:2015.

Table 10. Inappropriate university culture for implementation of QMS (N= 28)

Sector	N	Mean	St.Dev.	t-value	df	sig
Public	14	3.35	1.64	.114	26	.910
Private	14	3.28	1.68			

Table 10 elaborates that the result of the t-test was found (.114). Which is statistically non-significant (p > 0.05). So it is concluded that the mean score of respective HODs of the public sector (mean=3.35,

SD=1.64) and private universities (mean=3.28, SD=1.68) agreed that Inappropriate university culture for implementation of QMS is the challenge.

Table 11. Perception of private sector universities HODs regarding challenges in the implementation of ISO 9001:2015 in universities.

Statement	Mean	Rank order
Lack of top management commitment	4.57	1
Lack of funding	4.42	2
Existence of accreditation	4.35	3
Lack of proper professional training	4.21	4
Resistance to change	4.00	5
Lack of Resources	3.78	6
Lack of cooperation of workforce	3.64	7
Lack of awareness	3.50	8
Inappropriate university culture for implementation of QMS	3.28	9
Time management	3.14	10

Table 11 indicates that the summary of HODs perception regarding the challenges of ISO 9001:2015 quality management system implementation in universities. Moreover, the responses of HODs were explained through a given bar graph.

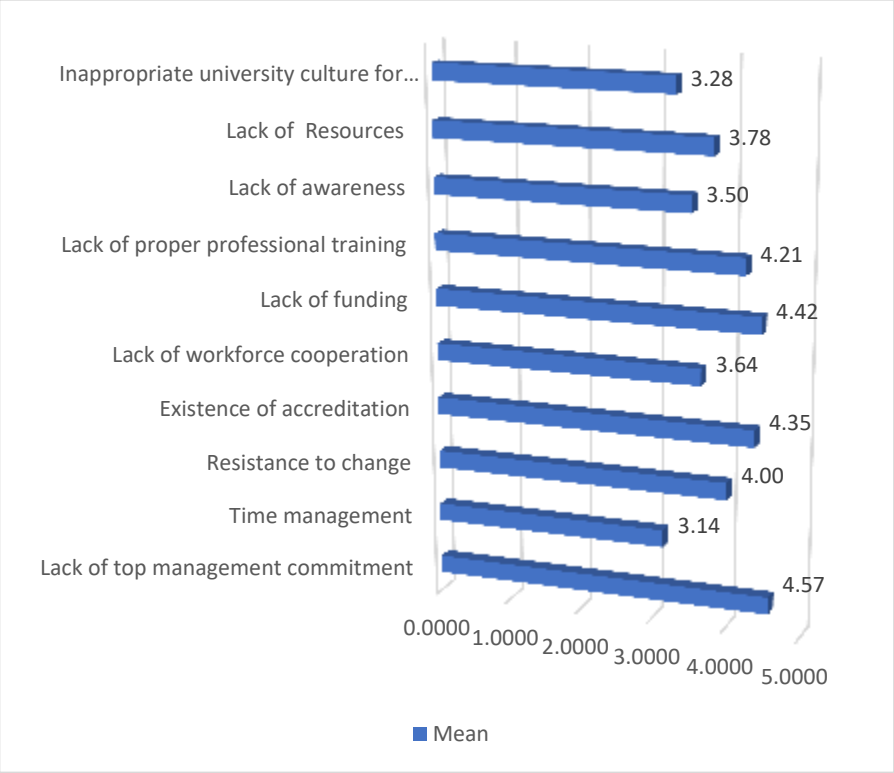

Figure 1. Summary of private sector HODs perception regarding challenges to implementation of ISO 9001:2015 in universities.

Table 12. Perception of private sector universities HODs regarding challenges in the implementation of ISO 9001:2015 in universities.

Statement	Mean	Rank order
Existence of accreditation	4.50	1
Lack of funding,	4.35	2
Lack of top management commitment	4.35	
Resistance to change	4.28	3
Lack of cooperation of workforce	4.14	4
Lack of Resources	4.07	5
Lack of awareness	3.85	6
Lack of proper professional training	3.78	7
Time management	3.50	8
Inappropriate university culture for implementation of QMS	3.35	9

Table 12 indicates that the summary of HODs perception regarding the challenges of ISO 9001:2015 quality management system implementation in public sector universities. Moreover, the responses of HODs were explained through a given bar graph.

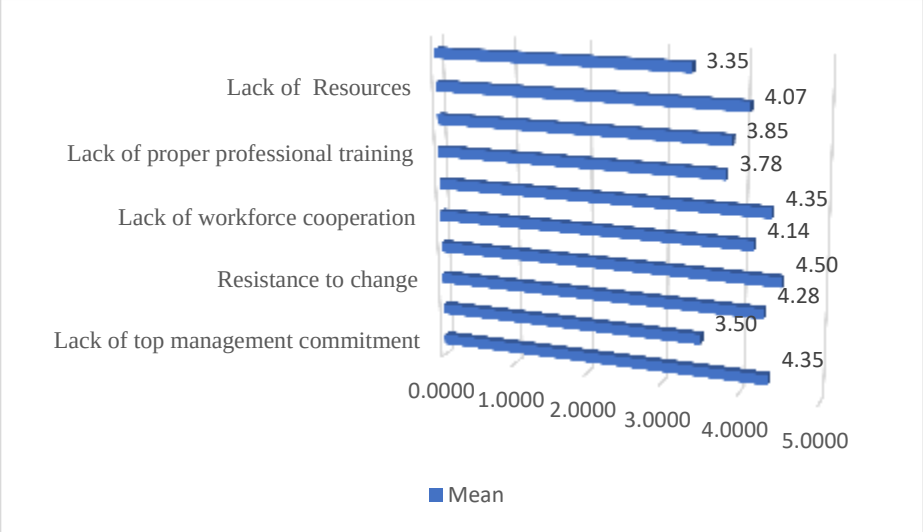

Figure 2. Summary of public sector HODs perception regarding challenges to implementation of ISO 9001:2015 in universities.

Discussion

Ater (2013) Added that the system of education is moving towards reconstructions. In addition, for the improvement of quality education in the educational process change is required. The present study found ten challenges that are responsible for ISO 901:2015 implementation in universities. In public sector universities, the top challenge is the existence of accreditation and in private sector universities, lack of top management commitment was top of the list. These results contradict Magd, Brown, Hitchcock, & Willard studies. Because public-sector HODs perception was not matched with (Magd, 2007; Brown, Hitchcock, & Willard, 1994) studies. As (Magd 2007) highlights that top management communication is the top of the list challenge. This may be due to the HEC accreditation of universities at the national level. Private sector HODs perception match with Magd study. The present study depicts that time management

is a challenge. Similar finding result found by (Hesham, & Magd, 2007; Hussein et al; 2017). Without financial support and resources institutions face a lot of challenges. Without funding, institutions face challenges in the field of infrastructure, management, instructional process, planning, administration, and the student's performance (Bhuiyan, & Alam, 2005; Ab Wahid, 2019). The present study found that lack of resources was a challenge in ISO 9001:2015 implementation in universities. Hussein et al; (2017) found similar results. In Pakistan, many universities don't have a proper infrastructure to teach students, poor infrastructure is one of the threats to a Pakistani system of higher education. Most of the colleges and universities face poor infrastructure problems. Responsibility, alignment of role, and authority was very essential for the effective implementation of administrative structure (Akhtar, & Kalsoom, 2012). The lack of an employee's enthusiasm to apply in the ISO 9001 system was a challenge (Alalfy, & Abo-Hegazy, 2015). Lack of cooperation workforce is the key challenge for ISO implementation by (Rosa & Amaral, 2007; Ab Wahid, 2019; Moturi, & Mbithi 2015). Massy (2003) describes that the extreme resistance comes from the professor for the improvement of quality processes. Because they consider it a business-oriented craze, a typical mindset undermines the effective implementation of the QMS in education. The role of teachers is informal in the traditional system of education and also less bureaucratic. Koch & Fisher (1998) Observe that the QMS is more bureaucratic and administrative on the other hand, there is a need to arrange meetings for critical decision making. A similar result was found by (Pratasavitskaya & Stensaker 2010). The main challenges are QMS in the organization is ineffective training. A teacher selected for training who is not eligible and suitable. The element of favoritism is common for the training of teachers (Al-Najjar, & Jawad, 2011). The present study found that lack of professional training was a challenge in the successful implementation of ISO 9001:2015. Lack of courses for human resources held by universities for how to apply ISO 9001 QMS in universities. Lack of awareness is the initial point for the implementation of QMS (Mehfooz, & Saeed Lodhi, 2015). Kothar & Lal Pradhan (2011) quality awareness, enhance confidence in the organization. Mehfooz, & Saeed Lodhi (2015) studied that this factor creates complications among staff members like the involvement of faculty members and staff in a different process. Unsuccessful implementation of QMS in universities is because of confusion from some universities think that implementation of the system of accreditation will replace the system outline by ISO 9001 (Thandapani et al, 2011). Universities need to be aware that the achievement of ISO certification provides competitive advantages for the fast-changing world and sustains their program. A similar finding was found by (Hussein et al, 2017). Moreover, (Zapata-Garcia et al, 2007) confirm that the quality system and the achievement of accreditation give a good image and recognition to the client. Leadership commitment is essential for creating a quality culture at various levels (Kosgei, 2014; Alalfy & Abo-Hegazy 2015). The key challenge of QMS effective implementation is organizational culture (Corbett & Rastrick, 2000). Present study found that inappropriate university culture is the challenge. Moreover, challenge of lack of funding was also found for implementation of QMS in universities (Hoodbhoy, 2010; Muborakshoeva, 2013). Challenge of lack of funding and its effective use was also added by (Muborakshoeva, 2015).

Conclusion

Although challenges exist an extensive body of research on the implementation of ISO 9001. Few empirical research studies have been conducted in Pakistan in the area of university personal perception. The present study finds ten challenges with the perception of HODs for the adoption of ISO 9001:2015 in universities. After ranking, the responses in Public Sector university existence of the accreditation was the challenge that exists at the top of the list and private sector universities lack top management commitment comes at the top of the list. Moreover, there is no significant difference found between the challenges of public and private sector HODs perception regarding successful implementation of ISO

9001:2015 in universities. This study is different from previous studies because it investigates the challenge in universities and has evidence of ten challenges.

The study recommended that HEC should make effective strategies for ISO 9001:2015 implementation in universities. These strategies include HEC for encouraging certification bodies in Pakistan, educate to top management, encourage team members for improvement. Top management commitment and leadership are the backbones of the ISO 9001:2015 implementation. This study draws a meaningful conclusion regarding awareness of the challenges of ISO 9001:2015 QMS in universities. As universities always focus on the growth and development of an individual's institution and empower the staff.

Recommendations

Recommendations for ISO 9001 quality management practices are as follows:

- Top management, especially the leadership of the university must understand the importance of a quality management system. As poor morale of top management is the biggest challenge in the quality management implementation of ISO 9001. It is strongly recommended that an attractive salary package with educational facilities must be provided. For more satisfaction, a proper service structure must be approved.
- A qualified and trained human cadre is required for ISO 9001 implementation. Proper training must be provided for ISO 9001 implementation. Criteria must be mentioned for the selection of cadres.
- Proper material and financial resources for ISO 9001:2015 implementation are required. The study suggests that HEC formulate a strategy for meeting the ISO requirement for the superior quality of service for international certification. Encourage and motivate certifying bodies in Pakistan for this purpose. Moreover, ISO benefits and requirements educate top management and provide guidelines and training, and different courses about ISO certification. Encourage team members for continuous development.
- For every plan, a timetable must be planned. Senior management of the university must be directed to organizing seminars on the importance and requirements of the ISO 9001 quality management system.
- Every year check quality management system implementation for this purpose special supervisory staff must be hired. Fellow up and corrective actions must be taken.
- It is recommended that future studies may be conducted on the costs and benefits of quality models of the quality management system used by university's performance direction and identification in the context of universities.

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