

THE EFFECTIVENESS OF ISO 9001:2008 CERTIFICATION IN EDUCATIONAL INSTITUTION OF NEPAL

Prof. (Dr.) Hemant Kothari

Dean, PG Studies

Pacific Academy of Higher Education & Research University, Udaipur

Bijay Lal Pradhan

Lecturer

Birendra Multiple College, Nepal

ABSTRACT

Competitive environment and trade liberalization has fuelled any organization to focus on customer satisfaction through the quality of service and goods. The international organization for standardization (ISO) system has emerged as the most integrated for the improvement of the organization with reference to qualitative product and service. Some of the educational industry of Nepal implemented ISO 9001:2008 certification and most of them have claimed that there is significant improvement in quality of system of service after implementation of such quality initiatives.

This study was undertaken to investigate the effectiveness of ISO 9001:2008 certification in quality of educational service industry of Nepal. Investigation of the motives and current practices of ISO 9001:2008 in such institutions were done.

Two ISO 9001:2008 certified educational organizations are selected for the study. Sample includes Management committee members, Top management and Department heads and some teaching and not teaching staffs.

INTRODUCTION

Among various definitions of total quality management (TQM), one definition tendered here is, "TQM is the totally integrated effort for gaining competitive advantage by continuously improving every facet of organization culture". TQM focuses externally on meeting customer(s) requirements exactly, while internally on management commitment, and employee training and education. The main objective of TQM is to entrench quality into processes, thus products and services. TQM focuses the entailment of everyone inside an organization (including internal customer) and linked persons outside the organization, such as customers (External). The ISO 9000 series are basically standards 'used for external quality assurance purposes and designed for internal use'. It has become the key tool for service/product reliability and customer

satisfaction. ISO certification demonstrates the capability of an organization to control the processes that determine the acceptability of the service/product.

There are two main differences between TQM and the ISO 9000 series. First, the ISO 9000 certification focuses on one aspect of quality, consistency in the production of a product or service, and does not address the nature of quality which is customer-driven. Second, going for ISO 9000 certification is a good way of measuring a firm's progress, but it really should be considered as the beginning of a continuous process rather than a goal to achieve.

In case of educational institutes of Nepal, there is a great pressure to the educators due to the changing global environment and trade liberalization as they have to meet the needs of industry and other stakeholders with a better skilled and quality workforce. The educational institutions would like to get certified by ISO 9001:2008 certification or/and quality assurance and accreditation through University Grant Commission (UGC) Nepal because of the reasons like facing competition, acquiring public acceptability, receiving a stamp of quality and such others.

Though ISO certification was intended for manufacturing organization, is now being adopted in service organization like educational institutions. There is still controversy in terms of suitability and applicability of ISO in teaching learning process. Currently, the latest developments on ISO 9000 in education are happening at ISO. It is supporting the development of guidelines for the implementation of the ISO 9000 standards in education and service organizations. Only few institutions have registered for ISO Certification and people from the educational institutions wonder that adopting ISO 9001:2008 certification improve the total quality of the Institution?

Since there is no study yet been observed related with effectiveness of ISO certification in educational institution in Nepal, the study discusses the current practices of ISO 9001:2008 certification in Nepal and its motives with effectiveness.

RESEARCH OBJECTIVES

The main objective of the study was to investigate the effectiveness of ISO 9001:2008 certification in Nepalese educational service sector. *The specific objectives are:*

1. To investigate the motives for ISO 9001:2008 certification
2. To examine the extent of current practices of ISO 9001:2008 certification
3. To study the effectiveness of ISO 9001:2008 on quality performance

RESEARCH METHODOLOGY

Sample

Two ISO 9001:2008 certified educational organizations are selected for the study. In this sample companies Management committee members, Top management and Department head of each department and some teaching and not teaching staff were randomly selected to administer questionnaire to conduct interviews.

Research Instrument

The questionnaire is a popular device to collect the information or facts through respondent so as to evaluate accurately. The survey questionnaire is based on the clauses of ISO 9001:2008 certification, motives and improvement due to ISO Certification. The questionnaire consist of 15 close-ended questions arranged under five points Likert-scale ranging from strongly disagree (=1) to strongly agree (=5). Higher score indicates the higher extent of current practices and lower score indicates the less practices. Similarly 4 closed end questions were used for motives of ISO 9001:2008 certification. Improvement in quality awareness, employee morale, teamwork, customer satisfaction, defective level, customer complain, cost of quality, clearly defined responsibility and obligation, increase confidence in QMS, training and motivation and customer relationship has observed using the similar 5 point Likert scale where 1 indicates the major improvement and 5 indicates the major decoration. Besides Structured questionnaire personal interview were taken as it would help to probe and elicit reactions of participants.

Reliability Analysis

Reliability is synonymous with repeatability. A measurement that yields consistent results over time is said to be reliable. When a measurement is prone to random error, it lacks reliability. Cronbach's alpha measures how well a set of items (or variables) measures a single unidimensional latent construct. As the average inter-item correlation increases, Cronbach's alpha increases as well. This makes sense intuitively - if the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct. This is really what is meant when someone says they have "high" or "good" reliability. They are referring to how well their items measure a single unidimensional latent construct. The coefficient which is 0.7 or higher are considered adequate (Nunnally, 1998). Table 2 shows that the reliability exist is somehow acceptable where the Chronbach's alpha lies between 0.64 to 0.93. Out of fifteen scale six has Cronbach's alpha less than 0.7 which indicate that the clauses are not properly understandable by the concern respondents, which also indicates that there is lack of training.

CURRENT PRACTICES OF ISO 9001:2008 IN EDUCATIONAL INSTITUTIONS

The average scores on extent of current practices of ISO 9001:2008 clauses are shown in table 3 are ranges from 3.2 to 3.94. This indicates that the clauses stated by ISO 9001:2008 is not understand by the human resources within the organization. The problem arises due to part time teachers who used to come to take classes on period basis and lack of training provided by the institutions.

MOTIVES OF ISO 9001:2008 CERTIFICATION

An organization can build up a quality management system without implementing ISO Certification. Still there are many advantages of establishing quality management system by establishing ISO 9001:2008 certifications. Forty-nine percentage of the

respondent strongly agree that the implementation of ISO 9001:2008 increases the company image where as forty-seven percentage agreed about it.

Thirty-seven percentage of the respondent strongly agreed that ISO certification increases the level of market demand of the product (student) where forty-nine percentages agreed upon it.

Majority of the respondent believe the ISO Certification strengthen quality management system. About thirty-seven percentages of the respondent does not agreed nor disagree about the integration of ISO 9001:2008 with total quality management.

EFFECT OF ISO 9001:2008 CERTIFICATION

Out of seventy respondents, only 8.6 percent had given their views as no difference in quality awareness and Increased confidence in organizations' QMS. That is 91.4 percent are positive in these aspect. Although improvement is seen in employee morale, reduction in defective levels, reduction in cost of quality and training and motivation factors are not sufficiently improved.

RECOMMENDATION

- ISO 9001:2008 Certification is design to work internally for external quality assurance. The clauses of ISO 9001:2008 certification should clearly explain timely to the human resources of the Institutions.
- ISO 9001:2008 Certification should be considered as the beginning of a continuous process rather than a goal to achieve. So continuous improvement process like 5s program, Kaizen etc should be used together with ISO to improve the quality of the Institutions.
- Generally part time teacher used to come to take class and don't bother about the ISO matter which also cause less effective on quality matter.
- The awareness of ISO 9001:2008 certification should not be limited to limited personalities within the organization.

Table: 1 Demographic characteristics of respondents (n=70, in percentage)

Sex	%	Age in years	%	Education	%	Position	%
Male	78.6	21-30	31.4	Post-Graduate	74.3	Mgmt. Committee	4.3
Female	21.4	31-40	38.6	Graduate	22.9	Top Management	4.3
		41-50	15.7	Intermediate	2.9	Middle Management	20.0
		51 & above	14.3			Lecturer	57.1
						NT Staff	14.3

Table: 2 Result of reliability analysis, mean and SD of clauses of ISO 9001:2008

S.No.	Component	Nos. of Items	Cronbach's Alpha	Mean	S.D.
1	Management Responsibility	4	0.71	3.78	0.80
2	Quality Management System	4	0.69	3.71	0.87
3	Contract Review	3	0.67	3.85	0.77
4	Design Control	3	0.70	3.80	0.84
5	Document & Data Control	2	0.67	3.94	0.70
6	Procurement	2	0.90	3.61	1.06
7	Process Control	2	0.79	3.39	0.91
8	Control, Inspection, measuring testing equipment	2	0.65	3.69	0.88
9.	Inspection and testing records	2	0.67	3.56	1.02
10.	Control of non confirming activities	2	0.64	3.62	0.91
11.	Corrective & preventive action	4	0.73	3.68	0.96
12.	Internal quality audits	3	0.90	3.49	1.20
13.	Control of quality records	2	0.74	3.75	0.95
14.	Training	2	0.93	3.20	1.22
15.	Servicing	2	0.90	3.56	1.30
16.	Motives of ISO Certification	4	0.76	4.10	0.80
17.	Effectiveness after implementation of ISO 9001:2008	11	0.79	1.96	0.73

Table 3: Average Scores on extent of current practices of ISO 9001:2008

SN	Component	Mean	S.D.
1.	Management Responsibility	3.78	0.80
1.1	Has well defined, documented and disseminated student oriented quality policy	3.86	0.80
1.2	Identifies resources requirements and provides adequate resources to implement ISO 9001:2008 QMS	3.79	0.74
1.3	Appoints senior executive with clearly defined authority and responsibility to implement quality management system	3.60	0.82
1.4	Reviews the quality management system at regular intervals to ensure its effectiveness	3.87	0.83
2.	Quality Management System	3.71	0.87
2.1	Has a detailed quality manual that establishes documents and maintain quality systems and procedures	3.74	.943
2.2	Quality system procedures are consistent with the requirements of ISO standard and Institution's quality policy	3.71	.919
2.3	Defines and document how that requirements for quality will be met through quality plans	3.81	.748
2.4	Defines and document how the needs, requirements for quality will met through quality control, inspection and testing.	3.57	.861
3.	Contract Review	3.85	0.77
3.1	Ensures that the requirements are adequately defined and documented before entering into contract	4.09	.775
3.2	Defines and documents procedures used to amend contracts and communicate the changes internally	3.60	.788
3.3	Maintains and updates records of all contract reviews.	3.86	.748
4.	Design Control	3.80	0.84
4.1	Establishes and maintains documented procedures to verify the design of service which meets the requirement	3.83	.816
4.2	Designs and documents organizational and technical interfaces between groups involved in design process.	3.77	.920
4.3	Identifies, documents and reviews the selection of design input/output requirements for adequacy and validation	3.79	.778
5.	Document & Data Control	3.94	0.70
5.1	Establishes and documents procedures to control all documents and data relating to ISO requirements.	3.94	0.63
5.2	Ensures the appropriate documents are available/obsolete through the control system and provides a tracking procedure for revision	3.93	0.77
6.	Procurement	3.61	1.06
6.1	The system ensures a well defined documented procedure to	3.74	1.07

	select and control suppliers.		
6.2	A clear procedure is documented to verify products on the supplier's premises	3.49	1.05
7.	Process Control	3.39	0.91
7.1	Identifies the different processes to ensure documentation of all procedures, compliance with quality standard, monitoring of process parameters.	3.44	0.93
7.2	Plan the different process to ensure documentation of all procedures, compliance with quality standard, monitoring of process parameters.	3.34	0.90
8.	Control, Inspection, measuring testing equipment	3.69	0.88
8.1	Maintain documented procedure to control, calibrate and inspect.	3.76	0.89
8.2	Controlling, calibration and inspection is done at regular intervals and documented	3.61	0.87
9.	Inspection and testing records	3.56	1.02
9.1	Documents all the inspected records	3.51	0.96
9.2	Documents all the test status of each and every activities	3.60	1.08
10.	Control of non confirming activities	3.62	0.91
10.1	Documents to ensure the activities not conforming to requirements are not adopted	3.61	0.95
10.2	Not conforming products are reviewed, reworked or rejected	3.63	0.87
11.	Corrective & preventive action	3.68	0.96
11.1	Maintains documentation to ensure corrective and preventive actions	3.66	1.05
11.2	Corrective actions include investigation of the cause of non-conformation.	3.74	0.90
11.3	Preventive actions include application of controls to ensure the effective preventive action taken	3.64	0.99
11.4	Procedures of corrective and preventive actions taken are reviewed by the management	3.67	0.91
12.	Internal quality audits	3.49	1.20
12.1	Establish and maintain documented procedures for planning and implementation of internal quality audits.	3.49	1.25
12.2	Internal quality audits are scheduled on the basis of status and importance of the activity.	3.50	1.11
12.3	Results of the audits are recorded, reviewed by the management and corrective actions are taken.	3.47	1.24
13.	Control of quality records	3.75	0.95
13.1	Establish documented procedures for identification, collection, indexing and filing of quality records.	3.86	0.95

13.2	Quality concords are maintained to demonstrate conformance to specified needs and the effective operation of quality system.	3.64	0.95
14.	Training	3.2	1.22
14.1	Establish a documented procedure for identifying the trainers and training needs.	3.17	1.26
14.2	Maintain documented procedure for identifying the trainers and training needs.	3.23	1.18
15.	Servicing	3.56	1.30
15.1	Establish a documented procedures for performing, evaluating and reviewing of service requirements	3.59	1.31
15.2	Maintain documented procedures for performing, evaluating and reviewing of service requirements	3.53	1.28

Table 4: Motives for ISO 9001:2008 QMS

SN	Motives	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	Improve the image of the organization			3	34	33
2	Upgrade the level of market demand of the product (students)	3	-	6	34	27
3	Strengthen quality management system		6	6	34	24
4	Integrate with TQM	-	3	26	29	12

Table 5: Effect of ISO 9001:2008 QMS Certifications

SN	Factors	Major Improvement		Minor Improvement		No effect		Minor Deterioration		Major Deterioration	
		Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
1	Quality Awareness	24	34.29	40	57.14	6	8.57	0	0	0	0
2	Employee Morale	21	30.00	26	37.14	23	32.86	0	0	0	0
3	Team Work	31	44.29	27	38.57	12	17.14	0	0	0	0
4	Customer Satisfaction	9	12.86	47	67.14	14	20.00	0	0	0	0
5	Defective level	12	17.14	32	45.71	24	34.29	2	2.86	0	0

6	reduction Customer complain reduction	9	12.86	36	51.43	22	31.43	3	4.29	0	0
7	Cost of quality reduction	15	21.43	34	48.57	21	30.00	0	0	0	0
8	Clearly defined responsibility and obligation	35	50.00	26	37.14	9	12.86	0	0	0	0
9	Increased confidence in organizations QMS	37	52.86	27	38.57	6	8.57	0	0	0	0
10	Training and Motivation	15	21.43	35	50.00	20	28.57	0	0	0	0
11	Students relationship	21	30.00	33	47.14	16	22.86	0	0	0	0

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