

# QUALITY MANAGEMENT SYSTEM ISO 9001:2008 AND ISO 9001:2015 STANDARDS WITHIN HIGHER EDUCATION INSTITUTIONS

Norreha Othman<sup>1</sup>, Sany Sanury Mohd Mokhtar<sup>2</sup>, Mohd Norhasni Mohd Asaad<sup>3</sup>  
School of Business Management<sup>1,2</sup>, School of Technology Management and Logistics<sup>3</sup>  
College of Business, Universiti Utara Malaysia  
06010 Sintok, Kedah, Malaysia.

## Abstract

Quality is very significance for every organization in producing product and providing services to customers' nowadays. Among the favourite tools which have been used are business process management, statistical process control, supply chain management, balance scorecard benchmarking, lean management system, quality management system and creativity and innovation. All of these are the tools of Total Quality Management. Quality management system (QMS) is one of the tools has been used in higher education institutions in Malaysia. Examples of QMS are the ISO 9000, ISO 9001, ISO 10005, ISO 10006, ISO 10007, ISO/TR 10013 standards. Organizations which have been awarded as ISO 9001 is an advantage to an institution since it is expected to improve its overall effectiveness and organizations' performances in the product produced or services provided. The latest revision of ISO 9001 is produced in 2015 which has been made and is expected to bring changes since its cover products' and services' organization. This paper aims to compare differences between ISO 9001:2008 and ISO 9001:2015.

**Keywords:** Quality management system (QMS), ISO 9001, higher education institutions, quality.

2017 GBSE Journal

## Introduction

Quality is everyone is looking for in a product or service. And it is considered to be a competitive weapon in the marketplace nowadays. ISO is stand for the International Organization of Standardization (ISO) which was formed in Geneva, Switzerland in 1946. The objective of ISO is to develop international, industrial and quality standards as a model for quality assurance standards in design, development, production, installation and service (Aba & Badar, 2004). ISO 9000 is a series or models of quality management standards published by the ISO in 1987, whereas ISO 9001 is design for organizations in providing servicing. Under these standards there are ISO 9001, ISO 9004, ISO 19011 and ISO 14000. Quality and higher education institution cannot be separated, however there is no specific definition of quality in higher education institution since its involved students, disciplines, labour market, society and government (Zabadi, 2013).

Currently, there are two versions of ISO 9001:2008 and ISO 9001:2015 produced in September 2015. Organization implementing ISO 9001:2008 has been given three (3) years for the transition to the new version. By September 2018 the transition period will end and ISO 9001:2008 certificates will not be valid anymore. The new version has been produced because of challenges faced by higher education institution such as low productivity, increased costs and lack of financial resources, low level of job satisfaction among employees, greater demand for enrolment, and development of technologies (Zabadi, 2013). In Malaysia there are 106 institutions or organizations of higher education institutions had been certified with ISO 9001:2008. However, there are only 47 institutions are privately owned and the rest are publicly owned by government. It will be quite challenging for institutions to upgrade to the new versions immediately that is the reasons the three years are given for the transition period. So, this paper will provide a comparison on the two versions of ISO 9001.

### **History of ISO 9001**

Quality Management System (QMS) is a combinations of parts such as the organizational structure responsibilities, process and resources (Wahid, 2010) or as a set of interrelated processes designed and implemented to meet the customer requirements (Alolayan, 2014). ISO 9001 was published by ISO in 1987 and it has been revised and amended several times in 1994, 2000, and 2008 respectively (Abadi, Bouayad, & Lamrini, 2009). And the latest one it is been revised in 2015. ISO 9001:1994 version is focus on manufacturing sector only while ISO 9001:2000 and 2008 are relevant to all types of businesses. Furthermore, they described most of the educational institutions are having problems because the ISO 9001 is designed purposely for manufacturing. ISO 9001:2008 has been designed base on eight quality management principles which are customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making, and mutually beneficial supplier relationships and for the new version ISO 9001:2015 it is based on seven quality management principles which are customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making, and relationship management (ISO, 2017).

### **Comparing of ISO 9001:2008 and ISO 9001:2015**

There are five main clauses in the ISO 9001:2008 standard; quality management systems, management responsibility, resource management, product realisation and measurement, analysis and improvement.

- Clause 0 – Introduction
- Clause 1 – Scope
- Clause 2 – Normative reference
- Clause 3 – Terms and definition
- Clause 4 – Quality management system
- Clause 5 – Management Responsibility
- Clause 6 – Resource Management
- Clause 7 – Product Realisation
- Clause 8 – Measurement, Analysis and Improvement

Whereas, ISO 9001:2015 the latest version consists of many different clauses and sub-clauses as below:

- Clause 0 - Introduction
- Clause 1 – Scope
- Clause 2 – Normative references
- Clause 3 – Terms and definitions
- Clause 4 – Context of the organization
- Clause 5 – Leadership
- Clause 6 – Planning
- Clause 7 – Support
- Clause 8 – Operation
- Clause 9 – Performance evaluation
- Clause 10 – Improvement

All the clauses and sub-clauses in both versions are described in Table I below.

**Table I** – Differences of Clauses in ISO 9001:2008 and ISO 9001:2015

ISO 9001:2008		ISO 9001:2015	
Clause		Clause	
0	Introduction	0	Introduction
1	Scope	1	Scope
1.1	General		
1.2	Application		
2	Normative references	2	Normative references
3	Terms and definitions	3	Terms and definitions
4	Quality management system	4	Context of the organization
4.1	General requirements	4.1	Understanding the organization and its context
4.2	Documentation requirements	== =	Refer Clause 7.5
	4.2.1 General	4.2	Understanding the needs and expectations of interested parties
	4.2.2 Quality manual	4.3	Determining the scope of the quality management system
	4.2.3 Control of documents	4.4	Quality management system and its processes
	4.2.4 Control of records		
5	Management responsibility	5	Leadership
5.1	Management commitment	5.1	Leadership and commitment
			5.1.1 General
5.2	Customer focus		5.1.2 Customer focus
5.3	Quality policy	5.2	Policy
			5.2.1 Establishing the quality policy
			5.2.2 Communicating the quality policy

		5.3	Organizational roles, responsibilities and authorities
5.4	Planning	6	Planning
	5.4.1 Quality objectives	6.1	Actions to address risks and opportunities
	5.4.2 Quality management system planning	6.2	Quality objectives and planning to achieve them
		6.3	Planning of changes
5.5	Responsibility, authority and communication	== =	Refer Clause 5.3 and Clause 7.4
	5.5.1 Responsibility and authority		
	5.5.2 Management representative		
	5.5.3 Internal communication		
5.6	Management review	== =	Refer Clause 9.3
	5.6.1 General		
	5.6.2 Review input		
	5.6.3 Review output		
6	Resource management	7	Support
6.1	Provision of resources	7.1	Resources
6.2	Human resources		7.1.1 General
	6.2.1 General		7.1.2 People
	6.2.2 Competence, training and awareness		
6.3	Infrastructure		7.1.3 Infrastructure
6.4	Work environment		7.1.4 Environment for the operation of processes
			7.1.5 Monitoring and measuring resources
			7.1.6 Organizational knowledge
		7.2	Competence
		7.3	Awareness
		7.4	Communication
		7.5	Documented information
			7.5.1 General
			7.5.2 Creating and updating
			7.5.3 Control of documented information
7	Product realization	8	Operation
7.1	Planning of product realization	8.1	Operational planning and control
		8.2	Requirements for products and services
7.2	Customer-related processes		8.2.1 Customer communication

	7.2.1 Determination of requirements related to the product		8.2.2 Determining the requirements for products and services
	7.2.2 Review of requirements related to the product		8.2.3 Review of the requirements for products and services
	7.2.3 Customer communication		8.2.4 Changes to requirements for products and services
7.3	Design and development	8.3	Design and development of products and services
	7.3.1 Design and development planning		8.3.1 General
	7.3.2 Design and development inputs		8.3.2 Design and development planning
	7.3.3 Design and development outputs		8.3.3 Design and development inputs
	7.3.4 Design and development review		8.3.4 Design and development controls
	7.3.5 Design and development verification		8.3.5 Design and development outputs
	7.3.6 Design and development validation		8.3.6 Design and development changes
	7.3.7 Design and development changes		
7.4	Purchasing	8.4	Control of externally provided processes, products and services
	7.4.1 Purchasing process		8.4.1 General
	7.4.2 Purchasing information		8.4.2 Type and extent of control
	7.4.3 Verification of purchased product		8.4.3 Information for external providers
7.5	Production and service provision	8.5	Production and service provision
	7.5.1 Control of production and service provision		8.5.1 Control of production and service provision
	7.5.2 Validation of processes for production and service provision		8.5.2 Identification and traceability
	7.5.3 Identification and traceability		8.5.3 Property belonging to customers or external providers
	7.5.4 Customer property		8.5.4 Preservation
	7.5.5 Preservation of product		8.5.5 Post-delivery activities
			8.5.6 Control of changes
7.6	Control of monitoring and measuring equipment	8.6	Release of products and services
		8.7	Control of nonconforming outputs.
8	Measurement, analysis and improvement	9	Performance evaluation

8.1	General	9.1	Monitoring, measurement, analysis and evaluation
8.2	Monitoring and measurement		9.1.1 General
	8.2.1 Customer satisfaction		9.1.2 Customer satisfaction
			9.1.3 Analysis and evaluation
	8.2.2 Internal audit	9.2	Internal audit
	8.2.3 Monitoring and measurement of processes	9.3	Management review
	8.2.4 Monitoring and measurement of product		9.3.1 General
			9.3.2 management review input
			9.3.3 management review output
8.3	Control of nonconforming product	===	Refer Clause 8.8
8.4	Analysis of data	===	Refer Clause 9.1
8.5	Improvement	10	Improvement
	8.5.1 Continual improvement	10.1	General
	8.5.2 Corrective action	10.2	Nonconformity and corrective action
	8.5.3 Preventive action	10.3	Continual improvement

## Discussion and Recommendation

Even though most of the terms been used in the standard both ISO 9001:2008 and ISO 9001:2015 are differences but they are still referring to the same things. Besides, there are many sections and sub-sections in the latest revision. This latest revision also views the clauses in the context of PDCA cycle (Plan, Do, Check and Act). Beginning from clause 4, 5, 6 and 7 (Plan); clause 8 (Do); clause 9 (Check) and clause 10 (Act). Furthermore, the latest revision seems to have more details on the subject matter discussed.

Another, advantage of ISO 9001:2015 is the added value of risk management in the quality standard. It is very significance for organizations such as airlines, oil and gas firms, service providers, consumers' food and beverage firms to incorporate ISO 9001:2015 in their organizations since currently they are involve in high risk environments (Malay Mail, 15 Sept 2014). For higher education institutions it is relevant for them since there dealing with information, innovation and quality.

## Conclusion

Going from ISO 9001:2008 to ISO 9001:2015 is just the right time since it involves the main changes on more well defined process approach and risk management. It is also due to challenges and opportunities faces by institutions as well as new technological advancements. Institutions which are expected to remain competitive in the market and updated in terms of information, creativity, innovation and quality are expected to grow along with the development of quality management system.

## References

- Aba, E. K., & Badar, M. A. (2004). A Review of the Impact of ISO 9000 and ISO 14000 Certifications. *The Journal of Technology Studies*, 42–50.
- Abbadi, L. El, Bouayad, A., & Lamrini, M. (2009). ISO 9001 and the Field of Higher Education : Proposal for an Update of the IWA 2 Guidelines, 4(2), 14–19.
- Alolayan, S. (2014). An Assessment of quality management system indicators for the ISO 9001 : 2008 certified work organizations in Kuwait.
- Hany R. Alalfy, and Abo-Hegazy S. R. E. (2015). A Suggested Proposal to Implementation Quality Management System ISO-9001 in Egyptian Universities. *American Journal of Educational Research*, 3(4), 483-489. doi: 10.12691/education-3-4-15.
- International Organization for Standardization (ISO). (n.d). Retrieved June 7, 2017. <https://www.iso.org/files/> .
- Levine D., Toffel, M.W. (2010). Quality Management and Job Quality: How the ISO 9001 Standard Quality Management Systems Affects Employers and Employees, Harvard Business School.
- New ISO 9001:2015 to focus on risk management. (2014, September 15). *The Malay Mail (Money)*.
- Wahid, R. A. (2010). Beyond Certification: The Manintenance of ISO 9000 in Malaysian Service Organisations.
- Zabadi, A. M. A. (2013). Implementing Total Quality Management ( TQM ) on the Higher Education Institutions – A Conceptual Model. *Journal of Finance & Economics*, 1(1), 42–60. doi:10.12735/jfe.v1i1p42