MS ISO 9001:2000 Implementation in Malaysian Academic Libraries

Kiran Kaur
Faculty of Computer Science and Information Technology
Universiti Malaya
kiran@um.edu.my

Abstract:

This study focuses on the use of Quality Management System (QMS) Standard (MS ISO 9001: 2000) as a tool to practice evidence-based librarianship by public university libraries in Malaysia. The study, based on interviews with Chief Librarians, investigates the adoption of quality accreditation method as a ground work towards effective management of the library, thus meeting customer expectations. The study involved libraries of 3 public Universities that have obtained the MS ISO 9001: 2000 certification. The study focuses on the problems faced during initial stages of preparation for certification, establishment of the quality system, maintenance and benefits of the system. Generally all libraries agree that the standards can be effectively used by libraries with correct interpretation of the requirements. The main reason for seeking the certification is 'to improve library's quality image in the university' and 'the mandate from the Government'. The major problem faced in the initial stages were 'resistance from staff because of their lack of understanding of ISO requirements' and 'too much documentation'. However these libraries managed to overcome these problems through vigorous training sessions. The benefits reaped from the QMS based on MS ISO 9001: 2000 are evident, though not exactly as high as the library had expected initially. This study has shown some insights to the QMS of university libraries as a commitment to quality services for students, staff and researchers.

1. Introduction

The quality movement in Malaysia began as early as 1995 when the Government decided to adopt and implement the International Organization for Standardization Standards (ISO 9000). At that time the Manpower and Planning Unit (MAMPU), prepared a set of guidelines for the implementation of Malaysian Standard International Organization for Standardization Standards (MS ISO 9001:2000). In 2002, the Prime Minister's Department called upon the public sectors to adopt a quality management system (QMS) using the MS ISO 9001:2000. This is a requirement under the government circular "Pekeliling Kemajuan Perkhidmatan Awam Bil. 2 1996– Garis Panduan Bagi Melaksanakan ISO 9000 Dalam Perkhidmatan Awam". SIRIM was identified as the formal accreditation body to confer the certification. The ISO standards were created to establish quality system benchmarks that can be applied and accepted internationally by producers and consumers of products and service. Increased enrollment, greater need for accountability, stringent finance and most of all to be internationally recognized, drove the education sector, especially universities and colleges began to experiment with this international standard that focus on the quality and reliability of processes that create products and services.

As Malaysia strives to be a regional hub for higher education, the pressure of demand on the academic library has increased, not only because the number of students have increased but also because of the high cost of books and journals. Library management is faced with the challenge

on how best to develop the collection and provide services in such a manner that new demands by users can be met satisfactorily. The emphasis on quality saw academic libraries begin to implement specific measures to achieve it. As Gotzamani and Tsiotras (2001) state that one way organizations seek to ensure quality is through the development of a properly implemented quality management system for all the functional areas. The MS ISO 9001:2000 certification is a system of standards against which individual libraries can build their quality management system.

In Malaysia, as in December 2005, ten public university libraries have obtained the MS ISO 9001:2000 certification. Of all the ISO 9000 standards, the ISO9001 is the most comprehensive in scope. It focuses on confirming process conformance from the initial development of a product through production, test, installation and servicing (Lari, 2002). The ISO certification is expected to help organizations to enhance quality and efficiency, improve communications, achieve competitive advantage and reduce operating costs (Magd and Curry, 2003). According to Bravener (1998), the ibnformation management system required for this standard is not just a database with predefined reports; rather it is the support for trouble-shooting, decision-making and knowledge management. Kiran, Pauziaah and Sossamma (2005) have described the implementation of QMS at the University of Malaya Library and Habsah, Abdul Akla and Mohd. Idris(2005) describe ISO as a marketing tools for the university, but no comprehensive study has been done to assess the suitability of MS ISO 9001:2000 for academic libraries. This is a preliminary survey conducted to elicit information from library management as a groundwork for further formal research on the implementation of MS ISO 9001:2000 for certified academic libraries in Malaysia.

The purposes of the survey was to examine the initial motivation for seeking MS ISO 9001:2000 certification, evaluate their experiences and difficulties in developing a QMS, and collect views about the maintenance of the QMS. The survey also assessed the perceptions of the Chief Librarians of the benefits from implementing QMS and requested comments on the proposed improvement to quality management.

2. Methodology

There are eleven public university libraries in Malaysia(excluding the college universities at that time) and ten with MS ISO9001:2000 accreditation. The MS ISO9001:2000 accreditation may be awarded specifically to the library or to the library as part of the whole university. For this preliminary study, four university libraries were selected as a sample. Each of which had obtained the MS ISO9001:2000 certification for at least more than a year. However only three agreed to participate :

      (i)   University of Malaya Library
      (ii)   National University of Malaysia Library
      (iii)   International Islamic University of Malaysia Library

The Chief Librarian of each university was contacted personally to arrange for interview at their library. Upon agreement to participate, a set of structured interview questions were sent to the Chief Librarian to facilitate the interview process. However, only 3 universities were able to make an appointment for a face-to-face interview. The interviews were carried out between August and September 2005. The views of a small sample of Chief Librarians hopefully may lead to the identification of a number of issues that are considered most influential in the effective embedding of quality in academic libraries.

3. Results and Discussion

All three libraries had obtained the MS ISO 9001:2000 certification within the last one to three years. The interviewed Chief Librarians were the ones who were involved in the QMS process since the planning stage. Table 1 shows the year of accreditation.

Table 1:   Year of MS ISO 9001:2000 accreditation

Library	Year of accreditation
University of Malaya Library	2002
International Islamic University of Malaysia Library	2003
National University of Malaysia Library	2004

In the presentation of the results and discussion, the three libraries will be referred to as Library 1, Library 2 and Library3 and the Chief Librarians will be referred to as CL1, CL2 and CL3 respectively. This is not based on the order of the above table.

(a) Motivation for seeking MS ISO 9001:2000 certification

The Chief Librarians were first asked to explain the reason(s) that drove them to seek MS ISO 9001:2000 certification. All three CLs immediate reply that it was to improve services and the library's image. However, further discussion revealed that the parent university had called for all units to adhere to the mandate from the Government for Quality management. Thus, the quality management system was initiated by the parent organization based on the Government's mandate. Library 1 mentioned that it had no choice in the matter as it was the decision of the university management that included the library as a support service for teaching and learning: therefore a quality system without the library would be incomplete. The CL felt that even though that was the main initiator, the library's management team agreed wholeheartedly with this timely move to improve the library's image. The mandate from the Government to have ISO 9001:2000 certification is a major driving force and has actually pushed the education sector to the forefront of quality initiatives. The other two libraries took their own initiative to obtain certification to keep abreast with the developments in the university. Two of the CL's also mentioned that they were aware that the certification would make better internal and external communication.

CL1: "The university management made a decision and library was identified as a core process to support teaching, learning and research…"

CL2: "Initially we just followed the directive of the university, Faculties were being asked to comply with MAMPU's directive for QMS. Since the core business of a library is to support teaching & learning, we saw it fit to follow suit. It was well received by the university management and helped the library improve it's image to the stakeholders. …the library was without direction…we needed a system to force us to improve"

CL3: " I would say that there was some concerns resulting from students complaints. We were increasingly aware of this and had decided to overcome repetitive problems but had not yet devised a mechanism for it. The ISO came at the right time and some insights to other library's

experiences seemed promising. …preparation for the future..the library was the first department within the university to obtain this certification…"

Obviously, all libraries initiated their QMS because they wanted to improve the library's image and it was expected by the parent university. If this prime factor was not taken into account, another factor would be that the libraries considered certification for internal quality improvement. There was concern about the library's image arising from customer dissatisfaction too.

(b) Establishment of the quality management system

A QMS is to achieve and maintain quality of the services that the library delivers. It gives both the library management and the user confidence that the quality will be consistent throughout the processes and the output. All three libraries have included their core processes in the scope of the MS ISO 9001:2000 certification. The number of core processes of course were different between the three.

	Core processes
Library 1	Collection development, Customer service, User Education
Library 2	Acquisition, Cataloging, Circulation, Shelving. Information search and Information skills.
Library 3	Acquisition, cataloging, serial management, user services, information services, administrative support and technical applications.

The time taken to achieve certification by the three libraries varies from 12 to 24 months.
The length of time is usually for the preparation of the documentation that is an integral part of the QMS. Many organizations appoint the services of external consultants to help interpret the requirements of the standard and identify the scope and extensiveness of the documentation. All three libraries had initially employed the services of an external consultant to guide them towards the preparation of the documentation. Two libraries agreed that the consultant's services were helpful in understanding and interpreting the requirements of the standard for the library. The quality consultants were reported generally helpful and their employment continued to the time of Compliance Audit. Interestingly, CL3 mentioned that it was a "symbiotic" relationship as the consultant was unaware of library operations and shared views on standard interpretations and library work processes proved fruitful. CL1 reported that the quality consultant "only helped in understanding the Clauses in the standard but was of no help in identifying core processes and relating relevant clauses to library operations".

As for the size of the documentation, it varies between libraries. There is of course only one Quality Manual and 6 compulsory work procedures as stipulated in the Standard. However Library 1 has additional 2 mandatory Work Procedures for handling of complaints and the Management Review. Work Procedures related to core library processes vary from a minimum of three to a maximum of thirteen. On an average there are about over 50 work instructions.
        The quality objectives depend on the number of core processes identified by each library. Library 1 has only two written objectives in the quality manual, which are related to user education and collection development. As for the other two libraries the documentation is different. They have a quality manual dedicated to library services with each process defined in

detail, Library 3 identified 18 quality objectives and Library 2 has 28. Some examples of the quality objectives are as in Table 2:

Table 2: Examples of library quality objectives

Quality Objectives
▪ *Urgent books will be catalogued within 3 working days* ▪ *Ensure customer will not wait for more than 5 minutes to be served* ▪ *Ensure x% of the undergraduate students are given Information skills training every year* ▪ *At least x% of the reference queries are answered* ▪ *To increase User Education programme by x% every year* ▪ *To shelve all or at least x number of trolleys of used books at each level within 1 working day*

These objectives were measured at least once a year to be tabled at the Management Review meeting. On an average all three CLs agreed that the objectives were being met at a satisfactory level. Since the initial objectives were set based on the library's capacity, they all agreed that the targets can be revised and improved upon from time to time.

CL1: " every year we collect data to measure the achievement of the quality objectives. For the last two years we have managed to achieve our target…these targets will be revised to include other processes…"

CL2: " We recently made changes to our quality objectives to accommodate new processes introduced by the library. We will soon include quality objectives for the branch libraries too. "

CL3: " ..not all the objectives have been met yet…that is what the QMS is for...we strive to improve ourselves by setting high targets and working towards achieving them…"

The Chief Librarians were requested to rate how relevant each MS ISO 9001:2000 clause was to the library. They considered that most of the 8 major clauses were "considerably relevant" except *Clause 7.5 Design & Manufacturing* as they considered it not applicable to library operations. Both Library2 and Library3 had excluded this clause in the scope of the certification. The CLs were also asked whether they were totally satisfied with MS ISO 9000:2001 for library services. All agreed that MS ISO 9000:2001 was an adequate quality system applicable to the management of an academic library.

(c) Problems Faced in Implementation QMS

Once the QMS has been implemented, a lot of problems follow. Common difficulties that respondents encountered in implementing the QMS was to make their staff understand and accept the quality standard. Most Librarians were not convinced that MS ISO 9001:2000 was the best way to attain quality and it required a deal of change in the library culture. Librarians claim that they are trained to look for quality and the QMS cannot help improve their work. The impractical ISO 9001 requirements on library services and the excessive documentation procedures brought resistance from the professionals. This was overcome with a great deal of training and awareness sessions. Staff are sent for audit training and the Quality Committee took responsibility for carrying out regular activities to ensure the quality culture is maintained.

CL3 : "We started by asking staff to take their time to document processes,…though done with good intention, as not to burden the staff, it proved to be a mistake. After some time the spirit began to fade and worked slowed down…. Later a reasonable schedule was set and we managed to accomplish documentation on these set target".

CL1: " …in the beginning the approach of documentation was overly done.. as time when by the revisions helped reduce unnecessary work processes. The advantage was that it allowed us to reexamine work flows and recognize weaknesses in routine work and gave opportunity to improve services… this was well received by the staff. .. resistance become less.."

All three CLs report that some staff were concerned that rigid documentation will decrease creativity. Experience in writing and rewriting allowed staff to appreciate the flexibility of the standards interpretation and writing style that allowed generality without sacrificing content and quality indicators. Staff learnt to manipulate the documentation and to appreciate its flexibility.

Another problem faced was the man power and financial resources. As quality indicators were being identified, the librarians realised that the ideal situation could not be achieved as there is never enough people and money to go around.

CL3: "…many work processes could be improved with technology application, but we simply do not have the money to purchase a new system, so we have to compromise and set our targets based on the best we can do…of course users do not understand this…:

CL2: One major problem was finance of course. There was much we wanted to change but our budget did not allow us this luxury…so we had to make the best of what we had within out budget and accept that this was "quality service"…

CL1 revealed an interesting issue on quality indicators. Initially CL1 agreed that libraries must set their own targets based on the capacity of the library, but in the near future academic libraries must set a benchmark for library services so that an acceptable definition of quality can be reached among the academic libraries to benefit all users.

(d) Maintenance of quality management system

On an average it had been 1-3 years since the initial MS ISO 9001:2000 certification. Maintenance of the system involved timely planned internal audits and third party audits. The setting up a Quality Committee and regular meetings with Heads of Departments seem to be the mechanism to keep track of the quality management system. All three libraries reported that not much change has been done to the documentation. There have been reduced work instruction as some of the earlier minor work instructions were deemed unnecessary. Library1 library was planning to change its library system and could foresee some major changes in documentation.

CL1: '…when we change the library system, core processes will not change but documentation on work instruction will have major changes as a lot of the manual work will be automated…it cannot be avoided, but this time we will try to use more flow charts and avoid specific references…"

Having achieved ISO 9001certification, many organizations only run their business in accordance with the certified QMS so as to reap the maximum benefits from it automatically. Continuous improvement of the QMS is of paramount importance to meet clients' new

requirements and expectations while protecting the firm's interest (Tang and Kam, 1999). When asked about customer feedback, all CLs strongly agreed that positive feedback from library customers staff was the best way to maintain the QMS.

CL1: " ..our main concern is the student and researcher. When the library commits itself to quality, they expect all their request to be fulfilled. We have a hard time explaining to them that it is about improving the management system and working towards improving services too…"

CL3: " we carried out a customer satisfaction survey and received positive feedback from the students…many of their suggestion are discussed in Management review meeting and plans are made to overcome our weaknesses".

The requirement for customer focus by the ISO 9000 standard makes it suitable for libraries. Academic libraries are always striving to prove their worth to the academia and collections and services focused on user feedback cam ensure a more satisfied clientele.

(e)   Benefits from operating a QMS

The MS ISO 9001: 2000 process approach requires the management of activities and resources, enabling a desired result to be achieved. This approach usually leads to improved results that are consistent and predictable (Tang and Kam, 1999). A series of statements concerning the benefits from operating a QMS based on MS ISO 9001:2000 were included in the interview. Since all responding libraries were certified and had experienced some beneficial outcomes, they were asked to compare the benefits they originally expected to achieve and those they actually received as a result of gaining certification.

All 3 believed that MS ISO 9001:2000 certification would increase the level of user satisfaction. From the survey(s) carried out by the library, results explicitly demonstrated that the increase in client satisfaction met the original expectation. Unfortunately, they also found that the certification gave users as excuse to question the library's collection. All Chief Librarians expressed concern that users were becoming very demanding and expected the library to suddenly fulfill all their demands, especially for availability of books.

Once certified, the library is audited at least once a year by the certifying body. However, all libraries carried out internal audits to ensure compliance to the QMS documentation and the MS ISO 9001:2000 standard. These internal audits proved to be very beneficial to identify the strengths and weaknesses of the system may it be the human, process or infrastructure factor.

CL3 " Internal audits had a great impact on Heads of Departments when they realized staff had not being doing what has been instructed… work culture was revealed"

The continual improvement principle in MS ISO 9001:2000 improves the ability of an organization to react quickly to opportunities. The organization also will experience a performance advantage through continual improvements. This approach allows alignment of improvement activities at all levels with an organization's strategic intent. Library 1 actually had a well defined mechanism of continual improvement with documentation of specific projects carried out to solve problems.

CL1: " …problems identified from the customer survey or non-conformance report are discussed by the committee and a formal project is carried out to overcome this problem…a report is sent to the central quality committee…"

The other two libraries did not have a specific mechanism for continuous improvement but stressed that it takes place when problems arising from customer complaints, internal audits and customer surveys are discussed and work processes are reviewed as a means of corrective or preventive actions. Overall they found it difficult to identify specific improvements but believed processes were improving.

What was unexpected was the communication within the library and the parent organization. The benefits were slightly above expectation, the QMS had really improved the library's internal communication and eliminated any possible misunderstanding because the responsibilities and authority attached to each post were clarified.

CL2: ".. in meetings, I notice a fusion of opinions from various staff levels, support staff to heads of Departments. Each is exposed to the others problems and an agreement is reached by both…"

All libraries experienced a gained recognition by the university management. One library even won an award for its quality initiative. The library's image was enhanced and management was more willing to assist financially as benefits were now visible on paper.

One of the Chief Librarian mentioned about staff autonomy. CL3: "…I expected decision making to be decentralized, as everyone was made clear on their authority…but sadly people are afraid to be accountable…many routine matters were still being brought to management …."

The reason perhaps was that audits often revealed weaknesses and there was resistance from the staff to be held responsible for a non-conformance. Maybe the term "opportunity for improvement' may prove to be more acceptable. This situation could improve when the QMS becomes stable after a few years.

As for reduction in paper work, the management had not expected it to reduce much, in fact they had expected staff to complain about the increased paperwork. This proved to be true, as increase in the amount of paperwork for document control made the situation worse than expected. The use of electronic media was being exploited to help reduce paperwork but it was not yet visible.
CL1: " …we deal with people and manual procedures…our system is not sophisticated enough to handle everything online…more and more forms are being created to maintain objective evidence needed during audit!"
The other two CL too hoped that in the near future they could reduce the amount of paperwork which seemed to have unintentionally increased with ISO 9001:2000.

When asked about improved services, all three were skeptical about the actual significance of the QMS on provision of library services. Once the documented procedures were established, it was anticipated that an improvement in library operations would be achieved. Ironically, CLs reported that it was difficult to ascertain the actual impact of the MS ISO 9001:2000 on the library management.
CL1: " It is too soon to tell…things are changing for the better but many times the same problems crop up because we do not have enough staff …."
CL2: " I wish I could say it with full confidence,…but not yet…maybe in a couple of years more…right now we are struggling to achieve the minimum requirements set by the standard…"

CL3: " …we find the rating for library to be very high in the customer satisfaction survey, but was it always the case or is it because of QMS…it's hard to say…"

On the issue of personal job satisfaction and morale of the library staff, all three agreed that the QMS had certainly increased this more than that was expected. Though no formal feedback has been solicited from the staff, the general feeling of the CLs is that the staff are clearer about their tasks and responsibilities. Generally over the past year, grouses about the QMS have decreased and staff has accepted this way of work.

The overall benefits which the Chief Librarians have gained as a result of implementing a QMS to MS ISO 9001:2000 are quite significant. The CLs indicated that the level of improvement had not lived up to original expectation in the case of staff autonomy, reduced paperwork and improved services. However they certainly found improvement in internal communication and staff morale. The MS ISO 9001:2000 certification should be viewed as a long-term investment and the benefits of certification would increase with time (Tang and Kam, 1999). It is noted that these libraries have only achieved certification for 1 or 3 years. Perhaps the benefits will be more identifiable in the next few years.

(f) Further development of QMS in library services

These CLs were yet concerned about maintaining the current system and had not pondered deeply to further development. This could be due to the fact that current work processes were still being stabilized and their focus was on achieving customer satisfaction.

CL1: " …new staff constantly need exposure to this system and training is ongoing…All aspects of library operations is being looked at, maybe later we will need to focus on services…for greater customer satisfaction.."

CL2: " we need to involve the academic staff …collaboration will benefit the students…"

CL3: " There is a need to look beyond ISO… benchmarking has to be done…quality indicators must be normalized across university libraries… so that we can compare with others and not in isolation …set targets together.."

Currently the concern is to maintain the certification. Training and awareness will benefit the implementation and suggestions on benchmarking are welcomed.

4. Conclusions

The results of the interviews demonstrate that academic libraries have generally accepted the MS ISO 9001:2000 as a foundations to their QMS. These Chief Librarians are committed to improve the library's image and they believe that the QMS has made improvement to their management and work processes, though actual achievements are difficult to measure and are perceived slightly below expectations. The most common reason for seeking certification was the mandatory requirement from the Government which was initiated by the parent institution. Application of the standard to library management was not too difficult. Staff resistance to increased documentation is overcome by clearer work instructions and assigned responsibilities. Proper quality training and awareness for all levels of library staff should be required to improve the manner of managing QMS. Librarians must equip themselves with knowledge on quality and efficiently manage their tasks with minimal paperwork, yet enough to maintain objective evidence.

From a practical point of view, the MS ISO 9001:2000 is a sound foundation for quality management in academic libraries. Library leaders have proved themselves as internal change agents advocating quality management. All they need is commitment from the parent institution

for human and financial resources to carry out procedures as planned. By practicing an internationally recognized quality standard the library can demonstrate its worth to the stakeholders and society. Academic libraries need a planned approach to seek customer satisfaction based on customer requirements and survive the role of information provider.

References

Bravener, Lee4 .C. 1998. Forever can be a mighty lone time. *Computer Technology Review*, Vol.18, no.10: 38.

Brecka, Jon. 1994. Study finds that gains with ISO 9000 registration increase over time. *Quality Progress,*Vol.27, no.5: 18-20.

Tang, S.L. and C.W. Kam. 1999. A survey of ISO 9001 implementation in engineering concultancies in Hong Kong. *Journal of Quality and Reliability Management.* Vol.7, no.1:562-574.

Gotzamani, Katerina D., George D. Tsiotras. 2001. An empirical study of the ISO 9000 standards contribution towards total quality management. *International Journal of Operations & Production Management*, Vol. 21,no.10:1326-1342.

Habsah Abdul Rahman, Abdul Akla Wan IsmaiI and Mohd Idris Hj Ali. 2005. ISO9001:2000 certification: As a Marketing Tool. Paper presented at the International Conference On Libraries: Towards A Knowledge Society, 14-16 March 2005, Penang.

Kiran, Kaur, Pauziaah Mohamad, and Sossamma George. 2006. Quality Management Service at the University of Malaya Library. *Library Management*, Vol.27, no.4/5:249-256.

Lari, Alireza. 2002. An Integrated Information System for Quality Management. *Business Process Management*, Vol. 8, no. 2:169-182.

Magd, Hesham and Adrienne Curry. 2003. An Empirical Analysis of Management Attitudes Towards ISO 9001:2000 in Egypt. *The TQM Magazine*, Vol.15, no.6:381-390.