IN PURSUIT OF QUALITY - TOWARD MS ISO 9001:2000 : THE EXPERIENCE OF THE UNIVERSITY OF MALAYA LIBRARY

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Abstract: *The article reports on the implementation of MS ISO 9001:2000 in the University of Malaya Library and is based on practical experiences of the University of Malaya Library between the years 2000 and 2002 in relation to the implementation of the Quality Management System in the University of Malaya.*

Abstrak: *Artikel ini melaporkan bagaimana Perpustakaan Universiti Malaya melaksanakan piawaian kualiti MS ISO 9001:2000. Pengamalan praktik Perpustakaan Universiti Malaya dari tahun 2000 sehingga 2002 di dalam proses melaksanakan Sistem Pengurusan Kualiti di Universiti Malaya diperihalkan.*

Introduction

The quality program and the implementation of the Quality Management System in the University of Malaya Library began as part and parcel of the quality efforts of its parent organization, the University of Malaya. The reason for seeking ISO certification as stated by the Vice–Chancellor, Professor Dato' Dr. Anuar Zaini, in his 2002 New Year Message was essentially to address the various criticisms from the public and the mass media (ranging from the quality of graduates produced to poor management and services, including flagging image problems) and to send a clear message to our customers/stakeholders that radical improvements were taking place [1].

Thus the University Management took the decision to embark on a quest for quality, specifically, to achieve MS ISO 9001: 2000 certification, as its strategy toward change and continuous improvement. The objective of starting the quality program at the University, may be said to be driven by a desire to improve teaching and learning, management processes and customer services within the University rather than to merely obtain the ISO certification for its promotional value.

I. The Quality Program - The Initial Phase

Prior to beginning the quality program, the groundwork towards building on a team work culture and changing mindsets was undertaken in 2000 by the University through its Nadi program. This team work cum quality culture program was set in place and almost 10 % of the University staff members from all categories participated in team building cum physical

endurance courses held in Sungkai, Perak. On the Library's part, efforts were undertaken to hold miniature Nadi camps. A total of four one-day camps were held at the Rumah University (University House) for the Library staff. These camps were coordinated by the Library Nadi group with the aim of fostering togetherness and team spirit. The culmination of the library's Nadi program was a one-day camp at Sungkai on 25 July 2001 when 180 Library staff underwent a much abbreviated version of the actual team building cum physical endurance course.

The first definite involvement of the University of Malaya Library in the quality program began in 2001 with a workshop entitled *Bengkel SOP* (Standard Operating Procedures (SOP) Workshop). Selected staff of the University representing the Faculties, the Administration and the Library participated in this Workshop which was held twice from 14 to 18 January 2001 and 27 February to 3 March 2001. A total of 7 library staff attended this workshop, namely, Dato' Dr. Zaiton Osman, Noriyah Md. Nor, Tunku Noraidah Tuanku Abdul Rahman, Mukhtiar Kaur, Pauziaah Mohamad, Sossamma George and Husin Leman.

The objective of the Workshop was to introduce participants to the general concepts and requirements of MS ISO 9001: 2000, the quality management system, the quality manual, quality procedures and action plans. At that initial stage only 5 core processes [Proses teras (PT)] were identified for the whole University. These were Teaching and Learning (PT01), Research (PT02), Human Resource Management (PT03), Infrastructure Management (PT04) and Financial

Management (PT05). For each core process [Proses teras (PT)], a quality manual had to be written. During that workshop, questions on the identification of the core processes were raised. Dato' Dr. Zaiton Osman, the then Chief Librarian, suggested that other equally important processes had to be included and that the 5 core processes identified were not comprehensive. As a result of the disccussion held, other core processes were identified and as at May 2001, there were 13 core processes of which "Information Technology Management" was one. The Library was incorporated within this core process.

The second workshop entitled "Bengkel Penulisan SOP" (SOP Documentation Workshop) was held from 3 to 5 July 2001. The Workshop was attended by 8 Library staff members headed by Dato' Dr. Zaiton Osman and included Noriyah Mohd Nor, Che Puteh Ismail, Mukhtiar Kaur, Sossamma George, Pauziaah Mohamad, Kiran Kaur and Husin Leman. During that Workshop further discussions were held and it was decided that two more core processes were to be included, *viz,* Library Management (PT14) and Museum and Gallery Management (PT15). Library Management was added because it was difficult to merge library processes with hard-core Information and Communication Technology system management. Following that Workshop, the documentation/ writers' team for the core process Library Management (PT14) (Pasukan Penulis Proses Teras Pengurusan Perpustakaan), was formally set up and comprised the following:

Head: Dato' Dr. Zaiton Osman
          (Chief Librarian)
Deputy: Noriyah Md. Nor
          (Deputy Chief Librarian)
Secretary: Pauziaah Mohamad (Main Library)
Members: Chan Sai Noi (Research and
          Academic Services Division,
          Main Library)
          Che Puteh Ismail (Za'ba Memorial
          Library)
          Husin Leman (Chief Clerk, Main
          Library)
          Kiran Kaur (Main Library)
          Mukhtiar Kaur (Law Library)
          Sharipah Hanon Bidin (Library
          System Management Division,
          Main Library)
          Sossamma George(Main Library)
          Tunku Noraidah Tuanku Abdul
          Rahman (Medical Library)
          Prof. Wan Abu Bakar Wan Abas
          (Engineering Faculty)

Assoc. Prof Dr. Michael Ong Ah Hup
(Dental Faculty)
Assoc. Prof Dr. Mohd Zambri
Zainuddin (Science Faculty)
Assoc. Prof Dr. Nor Azila Mohd
Adnan (Medical Faculty)
Assoc. Prof Dr. Noraini Idris (Education
Faculty)
Abrizah Abdullah (Computer Science and
Information Technology Faculty)

On 23 July 2001, a presentation of the main activities and related flow charts for the core activity Library Management (PT14) was held for 5 other responsibility centers. The purpose was to obtain feedback from other responsibility centers so as to obtain a holistic perspective of Library activities.

The feedback received provided answers to the following questions:

1. Were there activities left out or not covered in the list of main activities presented?
2. Were the main activities listed appropriate?
3. Did the activities listed match that of the flow chart?
4. Was the flow chart reasonable? (in terms of scope, logic and flow)
5. Was the flow chart too brief?
6. Did the flow chart take into account the interface across core processes?
7. Did the flow chart take into account the current situation and changes in the next six months?

II. The Documentation Phase

Drawing Up Procedures and Instructions

The ISO Committee for PT14 (Library Management) moved into the documentation phase in July 2001. This proved a very challenging and demanding phase as it required the actual formulation of the quality procedures, the drawing up of flow charts and work instructions for the services and functions of PT14. Understanding the standards and interpreting the technical jargon of the standards and relating them to our core processes, learning to use appropriate software for the documentation, namely Microsoft Visio 2000, for the flow charting, were some of the new experiences at that stage.

The ISO Committee for the Library also had to work within an extremely tight time schedule set by the University of Malaya Central ISO Committee. The Central Committee had set 31 October 2001 as the deadline for all documentation to be submitted by all the core processes identified. Needless to say in order to meet this deadline, the Library ISO Committee had to work late into the night till 10 pm everyday for almost 3 weeks. The challenges during this period were many and to try and describe them in hindsight seemed a little out of place and even comical, but to be fair to all, if anything that was a time when various skills and roles of the team members were called upon. These might be categorized as the interpersonal, informational and decision-making skills of the group for the various situations and episodes that took place in the meeting room. Keeping the group motivated and enthusiastic was perhaps the greatest challenge for Dato' Dr. Zaiton Osman, the Head of the Library ISO Committee. There were times during the drawing up of work procedures and flow charts, when nerves were frayed or views and opinions differed strongly, and the interpersonal and decisional skills of the leader and the group members were required to keep discussions focused. Usually the tacit knowledge of those doing the work were required to draw up work processes, flows and resources (informational skills). To allow for a holistic perspective, representatives from other departments were required to ask probing questions, sometimes even naïve questions, so as to break away from the natural tendencies to make assumptions, particularly when all in the team had similar backgrounds. Nevertheless, between taking tea/coffee breaks and snacking on "assam" (pickled tidbits) and keeping the atmosphere light and jovial, the energy levels for the completion of the tedious task at hand were maintained and on 31st October 2001, the team sent 3 boxes containing 69 quality procedures and its corresponding flow charts as well as relevant guidelines and work instructions to the Central Committee.

Refining Documentation

Subsequently, the Library ISO Committee sat through with members of the ISO Central Committee in a 3-day Workshop on Content Checking of Quality Procedures for PT 14 Library Management. The Workshop members went through all the documentation of work procedures and guidelines. This led to further changes. In some cases, procedures were split up to smaller, more comprehensible work procedures. This resulted in the number of quality procedures for the Library growing in numbers to a total of 75 quality procedures and 11 guidelines. The general feeling at this point of time was perhaps for the first time in the history of the Library, it possessed a reasonably thorough set of documentation of its operations and work procedures. All this had brought us to the close of 2001. The next phase was the implementation phase and this began in 2002 and again the Central ISO Committee led the way.

III. The Implementation Phase

QMS Awareness and Familiarization Programs

The implementation of the Quality Management System (QMS) at the University went through various stages. The programs were coordinated by the Central ISO Committee. By May 2002, there was a Restructuring of Quality Documents Workshop held by the Central ISO Committee and as a result of that, the core processes and documentation for the University QMS saw a reorganization. Some core processes were merged and consequently, the number of quality procedures were reduced, and what remained after the reorganization were 10 core processes. As for Library Management, it became known as PT08 instead of PT14, and its quality procedures were reorganized to 3 quality procedures (PK), 42 work instructions (AK) and 10 Guidelines (GP). The Library Management also appointed Pauziaah Mohamed as Documents Manager/Controller (DM) and Sossamma George as Quality Manager (QM), appointments that neither readily accepted. The QMS for the whole of the University may be summarized as follows:

Table 1 : University of Malaya Quality Documents

Document Type	No
Quality Manual	1
Quality Procedures	29
Work Instructions	426
Job Specifications	21
Guidelines	17
Total	**494**

The University ISO Committee also held a workshop entitled `Bengkel Penghayatan Sistem Pengurusan Berkualti (QMS) dan Audit Berlandaskan Budaya Kekitaaan (Workshop on Internalizing the Quality Management System (QMS) and Auditing Based on Team Culture) from 10 to 12 May 2002 in Tekam, Pahang. This was attended by Dato' Dr. Zaiton Osman and Mrs Zuraidah Ibrahim, Head of the Library's Nadi group. The participants were introduced to the concept of auditing through simulation exercises.

Realizing the paramount importance of participation of all levels of staff in the implementation of the QMS, the Library ISO Committee held a number of briefings and workshops with the objective of making the entire staff force aware and familiar with the Quality Management System (QMS). The first activity of the awareness program began with a workshop entitled " Bengkel Penerapan Budaya Kualiti Dalam Perkhidmatan Perpustakaan" (Workshop on Developing the Quality Culture in Library Services) held on 20 May 2002 for all Library staff. To achieve its objective, the Library had to be closed for a day during the semester break so that staff working on shifts could be included. This workshop was presented by Dato' Dr Zaiton Osman who not only covered the Quality Management System in great detail (the vision, mission, quality policy, manual quality etc) but also related it to the core activity of the University, which is the " Learning experience of the student" and the link to the various support services which included the Library. The emphasis of the workshop was the importance of customer focus in the QMS. This workshop also required the participants to be involved in the activities of the session which consisted of a number of scenarios created based on the problem-based learning approach with a customer focus.

The Library ISO Committee also held a number of familiarization of quality procedure sessions which aimed to get the staff and process owners involved in a particular quality procedure and work instruction guideline. These sessions inevitably resulted in refinements, changes and error corrections to quality procedures and work instruction guidelines. To deal with document control, the ISO Central Committe decided to convert the QMS documentation to a CD-ROM format. All core processes (PTs) were issued with the complete set of QMS

documentation in the new format by 10 June 2002.

Adequacy Audit

With the documentation in place, the University was ready to forge ahead to the next stage, i.e. the Adequacy Audit, which was held on 8 July 2002. Three auditors from SIRIM QAS Sdn. Bhd. were at the University to ascertain whether all documentation in relation to MS ISO 9001:2000 was in order. There were 6 observations/comments regarding the documentation from the auditors during the Adequacy Audit and these were rectified by the Central ISO Committee. The auditor's recommended unconditionally, that the Compliance Audit be conducted from 11 to 13 November 2002.The Central Committee too was reorganized and officially set up on 7 August 2001 with a new name, QAMU (Quality Assurance Management Unit). QAMU made the relevant corrections to the quality documents and these were updated for all the responsibility centers (PTjs) -17 academic responsibility centers and 7 non-academic responsibility centers.

Internal Auditing

The next necessary condition before the University could go for the Compliance Audit was to carry out the Internal Audit. The University had to build its team of auditors and for that purpose several workshops were held for recruited selected staff across the whole University. The participants had to go through a grueling exercise of understanding the technical jargon of the MS ISO 9001:2000 and relating strange jargon such as " non-conforming products", " product realization", "verification, validation, monitoring, inspection and test activities" to the their own work processes. For example, who would think of a student owing fines or a wrongly shelved book as a " non-conforming product". Nevertheless a team of some 97 certified internal auditors were trained and the first internal auditing session was carried out from 23 to 25 July 2002. The second follow-up internal auditing session was carried out from August to October 2002.

As for the Library, Dato' Dr. Zaiton conducted briefings for all the Library staff from 17-19 July 2002 to prepare the staff for the internal auditing sessions. Additionally, QAMU too conducted Quality Briefings and talks throughout the

University. To quote from a report by Brophy "It is impossible to communicate too much. Staff overwhelmed by day to day tasks need constant motivation and constant communication if they are to be committed to the system" [2, p.6].

The first internal auditing session which covered the core processes of teaching and learning, research and all related support services brought up a total of 417 Non-conformance Reports (NCRs) and 418 Observations. The NCRs that related to the Library totalled 31, and these were promptly closed. Some 65 observations were taken note of. The massive scale of the auditing undertaken was again a first for QAMU and everyone involved. The general opinion about the whole exercise was that auditing could and should have been done more thoroughly.

The follow-up internal auditing session which was carried out much more professionally by some 27 Auditors, covered teaching and learning for undergraduate and postgraduate programmes and again related support services. In the case of the Library, the auditing process began with the Main Library followed with randomly selected branch/ special libraries, in relation to teaching and learning. In that audit, the Library was issued 20 NCRs. The NCRs received were related to the following clauses of the standard:- clause 4.2.4 (Control of documents), clause 7.6 (Control of monitoring and measuring devices) and clause 8.2.3 (Monitoring and measurement of processes). These NCs were also closed within the time limit given.

The Compliance Audit

Having completed the internal auditing process, the next phase was the Compliance Audit scheduled from 11 to 14 November 2002. There was much prepartion to be done. More information had to be conveyed to the staff to get them ready for the audit. That was done through briefings, meetings, and discussions at both the University and Library levels. Staff were briefed on what to expect during the four days of auditing, what to have ready in terms of records, checklists, files etc, to be prepared to be audited by being familiar with the quality documents, and to be open and positive when queried. Meetings were held with the sole purpose of going through their quality procedures at each unit level and to ensure staff

were abiding by their work instructions and guidelines so that "we were saying what we do, and doing what we say". As part of the ISO Festival that the University held, banners announcing the QMS and the Compliance Audit were strung up in the Library and the campus. The Nadi group of the Library also put up an exhibition with the theme "Universilty of Malaya Library : Towards ISO 9001:2000 Certification". This exhibition, held within the Library premises, publicized the QMS and the imminent Compliance Audit.

In terms of document control, each department or unit in the Library system received a current version of the quality documents (QMS) in both CD-ROM and print formats for their reference and use. Amendments and changes that were made or suggested were recorded on amendment proposal forms which were submitted to QAMU to be incorporated into the quality documents. As QAMU could not make amendments immediately, these were recorded into an errata log and later made available through the Web and in print format.

Complaints received through the complaints/ feedback/ proposal system instituted by QAMU were also monitored and acted on. The Library received 33 complaints/ feedback/proposals between August and September 2002. Of these 7 were resolved while the rest were acted on and monitored.

Other preparations included updating the organization chart for the whole Library as well as for each department/unit; putting up client charters and posters on the vision, mission and quality objectives of the University and the Library; improving the signage of the Library; carrying out general cleanliness campaigns; updating inventory and tagging records; updating staff names, qualifications and competencies lists; conducting fire drills, and improving filing systems and quality records for the various quality procedures. A great deal of team work, cooperation, patience, and monitoring was required during this time.

For the Library 14 November 2002 was judgement day. One auditor was at the Main Library for a whole morning and she went through our quality procedures in general. The auditor picked the acquisitions quality procedure specifically and carried out the audit. It was indeed a tense morning and by the end of the audit, the relief experienced was shared

by all in the campus. The results of the Compliance Audit were announced on the last day of the audit. The University received a recommendation for certification conditional upon satisfactory resolution of 8 minor non-conformance reports. These were duly attended to and closed by the respective people involved. Corrective actions taken were reported to SIRIM by QAMU. During the post audit Management Representative (MR) Meeting with Quality Managers (QM) on 25 November 2002, the actual corrective action plan and the required records were discussed and finalized. On 23 December 2002, we received an email from QAMU that the Chief Auditor of SIRIM QAS Sdn. Bhd., acknowledged receipt of the documents sent and that all the NCRs were resolved and closed.

Benefits of the QMS

Throughout the whole experience of planning and developing the QMS and documenting the work procedures, everyone had his share of frustration and doubts, questioning the relevance and benefits of being ISO-certified. Having gone through the laborious process, we admit to the following benefits:

1. We now possess a full set of documentation of core procedures that are being carried out at the Library.
2. We have a complete and ready made training tool for all work procedures.
3. We have now established a communication system with our users through the Complaints/Feedback/Proposal form that is available to all. We are now in a better position than ever to be constantly in touch with our customer needs through this system.

4. We are better able to monitor and take corrective action and improve on our methods and processes as with the QMS in place, we are in a better position to be evaluated and to carry out self assessment through Management Reviews.
5. Due to the QMS, we, as an organization, are more aware of other procedures outside our own work scope and the links between the core processes.

Conclusion

Thus the Library has obtained ISO certification, not in isolation, but in support of the University core activities of teaching, learning and research. However, the real question is what we have learnt from that and where do we go from here.

To a large extent the answers to the above questions were given by the Vice-Chancellor during his recent 2003 New Year Message. "What next?" he asked. The answers that rang through were continuous improvements which required benchmarking, collaborative management, good governance, self assessment and a commitment from everyone involved towards quality [7].

In conclusion, to quote Confucius "A journey of a thousand miles begins with a single step" and as far as the University of Malaya Library is concerned, the first step has been taken but, more importantly, the journey, as in the pursuit of quality, continues. The destination is for time to tell.

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