

***Towards Quality Higher Education in Oman:  
Implementing Quality Assurance in the Colleges of Technology***

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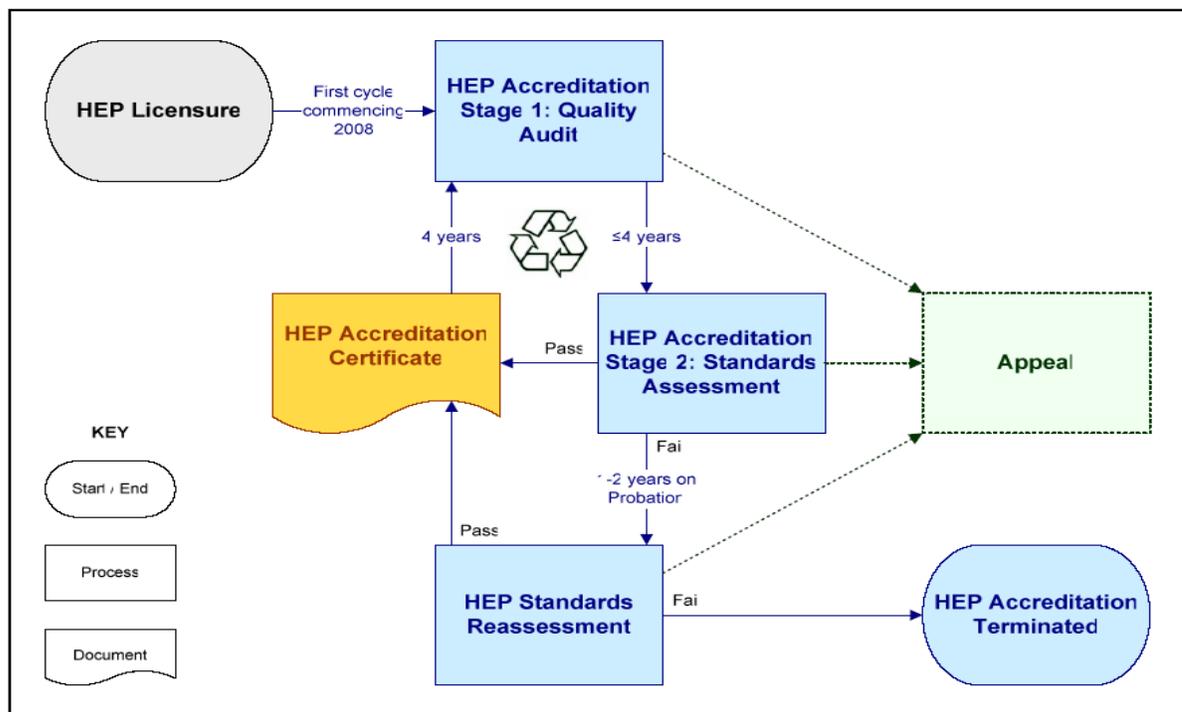
## **Introduction**

The past decade shows a steep upward trend of countries in the region trying to become at par with global standards in education by implementing and adopting uniform and more stringent quality assurance measures for their various higher education institutes, as well as requiring these institutes to become accredited by authorized quality standards bodies. The Sultanate of Oman, although having no formal government higher education provision prior to 1986, had undergone a strong growth in providing higher education in different sectors, and is now deeply committed to adopting a national quality management system for its higher education sector. It is the aim of this paper to describe the progress happening towards this end in one of the largest higher education sectors in the Sultanate of Oman, namely the Colleges of Technology. This paper details some of the concrete advances that had been achieved by the colleges of technology over the past few years in the implementation of quality assurance in order to gain institutional accreditation. It also highlights the key challenges faced and offers some recommendations.

## **Quality Framework in Oman**

In order for the Sultanate of Oman to have a common quality management system for its complex suite of public and private institutions catering to different sectors and offering various local and foreign programs, the Oman Accreditation Council (OAC) was established in 2001 through Royal Decree No. 74/2001. The OAC is tasked to advance the quality assurance initiatives of the government for its higher education sector and towards this end, it first prepared a set of standards for higher education institutions known as the Requirements of Oman's System of Quality Assurance (ROSQA) (OAC, 2004). Then it drafted the Plan for Omani Higher Education Quality Management System in 2006 (OAC, 2006). This quality management system, more popularly known as the Quality Plan, proposes a comprehensive and integrated quality management framework

for higher education, covering provider accreditation also called institutional accreditation and program accreditation. The latter is beyond the scope of this paper and hence will not be discussed here. The Provider Quality Assurance Framework was further modified as introduced in the Quality Audit Manual, now called Higher Education Institute (HEI) Quality Assurance Framework as illustrated in Figure 1 (OAC, 2008). In this context, Higher Education Provider (HEP) and Higher Education Institute (HEI) are interchangeably used to refer to the institute providing higher education.



*Figure 1: HEI Quality Assurance Framework ( OAC, 2008)*

As demonstrated in Figure 1, the institutional accreditation is comprised of two stages: Stage 1, Quality Audit and Stage 2, Standards Assessment with possible Reassessment where the whole process requires a few years. As a prerequisite, an HEP must be licensed by the Ministry of Higher Education and/or other authorized ministry, such as the Ministry of Manpower in the case of colleges of technology, Ministry of Health for Nursing Institutes and Institutes of Health Sciences, and Ministry of Higher Education for Colleges of Applied Science (OAC, 2008). In 2008, OAC has announced the schedule of Audit Visits for the HEIs in Oman.

### **Colleges of Technology in Oman**

Technological Education is probably the largest higher education sector in Oman in terms of the total number of students enrolled and the annual admissions. In 1984 there was only one technical college called Muscat Technical Industrial College. Four vocational training centers were converted to technical industrial colleges in 1993. The

technical industrial colleges were offering diploma degrees only. The government body supervising these colleges has changed more than once, hence the way these colleges were administered. In 2001, Muscat Technical Industrial College was converted to “Higher College of Technology” offering the Bachelor degree. Two years later, the other four Technical Industrial Colleges were converted to Colleges of Technology offering up to Higher Diploma degrees. A major change took place in the colleges of technology in 2003 where the qualifications structure and the programs offered have been changed. This was accompanied by the new bylaws of colleges of technology which was issued in March 2004. In 2005 and 2006 two new colleges were opened. Furthermore, the intake was doubled two times during the period 2001-2006 from 2000 students per year to 6000 students per year. A second wave of increase is planned to take place over the next few years.

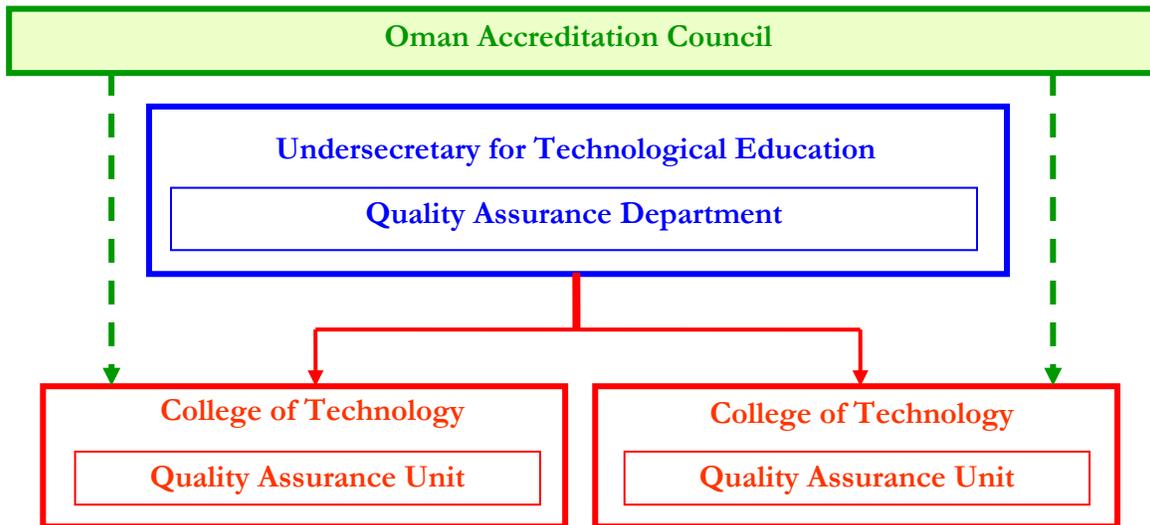
This higher education sector in the Sultanate provides training and education through seven colleges of technology located in geographically dispersed campuses distributed in the different regions of the country. Each college of technology offers programs in engineering, information technology and business studies and these colleges do not necessarily offer the same specializations as these depend on the requirements of the industry in the region the college is situated. As indicated above, These colleges offer up to the Higher Diploma Degrees whilst the Higher College of Technology offers up to the Bachelor Degree with more departments and programs.

During the initial stages of their operation, the technical industrial colleges were managed centrally with most decisions coming from a governing body such as the Vocational Training Authority, the Ministry of Social Affairs, Labor and Vocational Training or the Ministry of Manpower. The colleges of technology were directly and centrally managed through the Directorate General of Technological Education, the Directorate General of Standards and Curriculum Development, and the Directorate General of Administration and Finance. As the number of colleges increased, the specialization program offerings exceeded 30 different areas at different levels, and inasmuch as this resulted to the number of staff and students doubling several times, it became more difficult for the governing body to manage many diverse issues emanating from different colleges centrally. The Ministry of Manpower realized that faster, more efficient and innovative decisions can only be made within each college. Gradually and slowly, more and more responsibilities were transferred to the colleges especially after the new bylaws of the colleges of technology were issued in 2004. This was followed by several ministerial decisions giving more responsibilities to colleges.

### **Framework for implementing Quality Assurance in the Colleges of Technology**

Following the several advancements taking place in the colleges of technology, and to ensure better management, continuous improvement and enhanced outcomes, the Ministry of Manpower early realized the importance of adopting a Quality Assurance approach. In 2004, the Quality Assurance Department was established in the ministry in order to ensure that the colleges of technology are implementing quality procedures and measures in order to supply the industry with high quality graduates. As the OAC

considers each college of technology as an individual institute applying for institutional accreditation, it becomes apparent to develop a Quality Assurance Unit within each college of technology as a very important necessity. For the colleges of technology to become more committed in their quality assurance plans, and for the ministry itself to be more robust and flexible in monitoring the colleges and guiding them in the implementation of the national quality plan, the quality assurance scheme was developed in compliance with Oman Quality Framework, as shown in Figure 2 below.



**Figure 2: Quality Assurance in Colleges of Technology**

As illustrated in Figure 2, each college of technology has two external QA monitoring bodies – the OAC, which also serves as the accrediting body, and the Ministry’s own Quality Assurance Department which is under the direct supervision of the Undersecretary for Technological Education and Vocational Training – and one internal within the college, known locally as the colleges’ Quality Assurance Unit. This setup enables the college of technology to get more views and receive more feedback in terms of its implementation of the Quality Plan. This allows the college to have a more flexible and robust position in terms of implementing its local quality assurance activities.

Quality Assurance Activities and Processes in the Colleges of Technology

Formal quality assurance processes were established as early as 2004 when the OAC developed the Requirements of Oman’s System of Quality Assurance (ROSQA). The Quality Assurance Department of the Ministry of Manpower conducted several visits to the Colleges of Technology and advised them on how to implement the ROSQA Document. First cycle of self-study was conducted during the aforementioned period. This consisted of forming eight self-assessment groups in which each of them conducted a survey and analyzed or tried to analyze the data and made some recommendations. Several barriers were encountered during the process namely: some issues were not clear, none of the staff had experience in quality assurance with extra load added to them who are already overstressed, and the purpose of quality assurance was not clear. During the

process, many staff felt that the ROSQA document needed more explanation, simplification and direction.

In 2006, the OAC published the Quality Audit Manual which addressed many of the barriers faced in implementing the ROSQA document. After a series of consultations with HEIs in Oman, the OAC published schedules of formal audit visits starting from 2008. As illustrated in Figure 1 above, the first stage in institutional accreditation involves each HEI undergoing a quality audit. The emphasis of quality audit is on evaluating the effectiveness of an institution's quality assurance and quality enhancement processes against its own stated goals and objectives, as well as requirements set by government and other external sources such as professional bodies or affiliate institutions (M. Carroll, et al., 2009).

In preparation for the quality audit, various workshops were conducted by the Ministry's quality assurance department to familiarize the colleges' local quality assurance units with the audit process as well as the different audit scopes identified in the OAC's Quality Audit Manual (OAC, 2008). Some of these workshops were conducted by external consultants, while others were organized and conducted by the OAC staff themselves.

As all the colleges of technology operate under the same auspices, the Ministry of Manpower, and with all of them having similar vision and mission, a review of the colleges' strategic goals was prioritized and became the foundation of the succeeding workshops among quality assurance personnel of the colleges. The Ministry's quality assurance department was at the forefront of this review, together with a few outside consultants. Throughout this time, monitoring and guidance – through audit visits – were also conducted by the Ministry of Manpower's QAD to the colleges to ensure continuous quality assurance practices and to sustain the colleges' commitment to quality assurance initiatives. These audit visits resulted in each college drafting its own Quality Assurance Manual, as well as some supplemental manuals called QA Sub-Manuals for the workshops and laboratories.

When the revised strategic goals of the colleges are finalized in 2008, quality assurance works shifted into overdrive and focused mainly on the preparation for the OAC accreditation of the colleges of technology. The role of the Ministry's QAD also shifted from that of a monitoring unit to that of an advisory and/or consultancy unit. The colleges started reviewing their strategic plans to make these attune to the requirements of the new strategic goals, likewise, sub-goals, strategies and key performance indicators were developed by each college to come up with a more detailed and measurable strategic plan.

The following section describes a sample case regarding the quality assurance activities of a college of technology related to the development of its strategic plan.

#### Developing the Strategic Plan for one of the Colleges of Technology

Flexibility was given to the colleges of technology in developing and implementing Quality Assurance within the general framework and guidelines described above. This resulted in several rich experiences across the colleges of technology. As it is not possible to cover the experience of the individual colleges of technology in this paper, the experience of one college will be presented, namely Nizwa College of Technology which will be referred to as The College of Technology (TCoT). When the QAD was helping in developing the Strategic Plan for the Colleges of Technology in 2006, TCoT conducted several tasks. TCoT regularly conducted focus groups that include key personnel in charting the medium term and long term strategic directions of the college. In the succeeding year, TCoT felt that the strategic plan needed further improvement and therefore the college conducted a survey to clarify the content and structure of the Strategic Plan. This paved the way for the review and further verification of the direction of the strategic plan.

When the revised strategic goals for the colleges was finalized in 2008, and as the QAD advised the colleges that they could modify this strategic plan to address their needs, a core team of quality assurance personnel of the college utilized various college data and information to assess the College's external environment. They produced a formal environmental scan report, which validated the mission, vision, values and goals of the existing strategic plan and was the critical first step in the development of the 2009-2012 Strategic Plan.

After the College Council approved for implementation the strategic planning process, the Quality Assurance Follow-up Unit (QAFU) of the TCoT started reviewing the existing strategic plan in an effort to come up with a better and more relevant one. The "new" strategic plan passed different stages and was evaluated at each stage by various stakeholders of the college. Survey forms and other relevant questionnaires were developed to reinforce the evaluation process at different stages. When the strategic objectives were finally completed, QAFU proceeded in the development of key performance indicators of each identified strategy. The development of KPIs followed the same meticulous process as the strategic objectives (NCT, 2009). As with the sub-goals and strategies in the plan, the development of KPIs followed interaction with various departments and getting their feedback, getting feedback from external stakeholders, and finally requesting the Ministry's Quality Assurance Department to evaluate and give their suggestions before writing the final draft. As the KPIs are local to the college, the development of TCoT's KPIs, unlike the development of its strategic goals, and to a limited extent, its sub-goals, did not go through workshops and evaluations with QA personnel / staff of other colleges.

The strategic planning process is supplemented by the strategic planning implementation document, which details the steps by which the revised strategic plan will be implemented by the college. This document highlights the development and subsequent implementation of the departments' operational plans, as well as the strategic projects identified as priority in the revised strategic plan.

As the college starts implementing its strategic plan, and for purposes of maintaining quality standards as demanded in the national quality plan, quality sub-groups, called self-assessment groups, are formed through the guidance and supervision of QAFU, to continuously monitor and assess the operations in all areas and ensure that these conform to the OAC Quality Plan. Figure 3 illustrate the self-study process at TCoT. The quality self-assessment groups are formed for key college quality indicators such as governance and administration, teaching and learning, program development, industry and community linkage, student services, graduate services, staff services, and facilities.

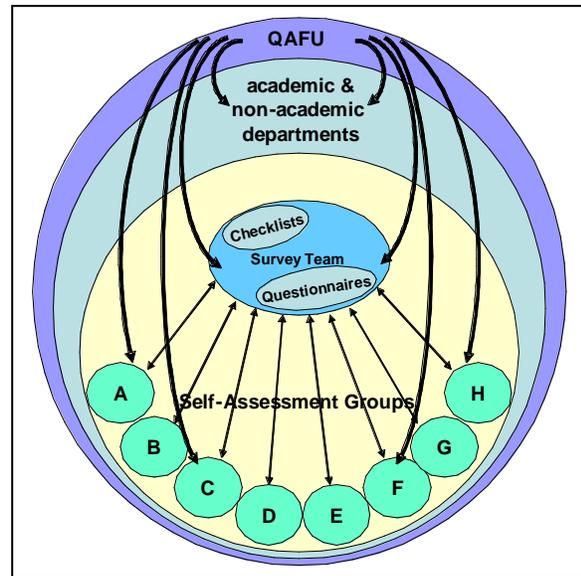


Figure 3: Self- Study Process at TCoT

These self-assessment groups work together with QAFU to ensure the realization of the college’s strategic plan and to ensure as well the conformance of the college’s operations to the requirements of the quality standards as defined in the national quality plan. The self-assessment groups are also required to help in conducting the self study of the relevant activities in the college. After ample consideration, it was decided to form a central team that will do the main work and coordinate all other relevant works related to self-study. Thus, the TCoT’s Survey Team was formed. In this context, the team had developed a checklist that it used to identify gaps in terms of the college’s implementation and realization of its strategic plan, and this endeavor is followed and supplemented by a set of questionnaires for various stakeholders that are used mainly to identify and understand trends in various college demographics and operations.

### Difficulties and Challenges

The development and implementation of a quality system in the colleges of technology has faced several challenges some of which have been addressed during the process of development and implementation whilst others need closer investigation. The main challenges identified include the following: drafting uniform strategic goals for all colleges of technology is a difficult task, especially that the colleges have undergone several changes with different management methods. Even though the colleges of technology managed to come up with an improved version of strategic goals, it took a long time doing it as consultation with various sectors and organizing workshops for all the colleges to come up with a set of goals fitted for all required huge effort on the part of the Ministry’s QAD, as well as the members of local QA units of colleges; similarly, the development of a relevant and measurable strategic plan followed the same arduous path,

as staff resistance at the beginning and the establishment of “quality culture” required lots of time and effort.

It is given that many countries are at earlier stages of development in higher education quality management compared to other regions of the world. This is also the case in Oman. The challenge now is how to sustain the quality initiatives that are currently being implemented and to continue expanding the culture of quality with the staff, who are just starting to grasp the maturing education system.

### **Recommendations**

As the cliché goes, quality is continuous improvement. In this regard, and as the academic community that comprise colleges of technology starts to have a good grasp of the maturing quality culture, a good system of documenting all aspects of the college’s operations should be adopted by the institutions. Much of the lessons learned from the series of quality audits and some trial audits done by the colleges and the QAD point to the importance of continuous, timely and proper documentation as a good basis for further improvement.

Quality should not be taken as an added value. In this regard, the so-called ‘quality culture’ should be sustained and nurtured further by involving everyone in the college. Ownership of quality activities should be embedded in the staff, and quality should be the concern of everybody. The concept of “quality guys” – that quality work is the responsibility of local quality units only – should be abandoned.

A small focus group should take the lead in maintaining – and making better – the standards of quality in the college. All other sub-groups/working groups should participate only in the self-study (e.g. data collection and analysis) and in conducting awareness activities for the stakeholders, particularly those who are external to the college.

### **Conclusion**

This paper aimed at describing the process of developing and implementing quality assurance in the Colleges of Technology in the Sultanate of Oman in their move towards Institutional Accreditation and to highlight the key challenges faced so that recommendations for improvement are proposed. The process of institutional accreditation was first described. Then background about the Colleges of Technology was provided with emphasis on quality assurance. The framework for implementing quality assurance in the colleges of technology was then provided. This was followed by explanation on how a general strategic plan for all the colleges of technology was developed. The experience of one of the colleges in customizing the strategic plan to address its need was then presented and the challenges faced have been discussed. The paper concluded with some recommendations for the colleges of technology on how to improve the process of quality assurance.

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