



Full Length Research Paper

Analysis of institutional quality standards using results chain and value chain methods

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Abstract

This paper aims to systemically analyze the institutional quality standards of Oman Academic Accreditation Authority using the results chain and value chain methods. Institutional standards are connected as input, process, output, and feedback and leads to the achievement of the final result. Efficacy can be achieved by Higher education institutions when these standards and criteria are viewed as a chain of achievable results and value creating activities. The output of this paper is a results chain and value chain map of institutional quality standards that will be useful in strategic management and quality standards compliance.

Keywords: ADRI, accreditation, institutional quality standards, learning organization, results chain analysis, standards compliance, strategic management, systems thinking, value chain analysis

INTRODUCTION

Working for continuous improvement requires a systems thinking approach (Senge, 2010) to visualize the elements within an 'input-process-output-feedback' framework. This allows easy recognition of outputs resulting from the continuous analysis of inputs and processes through appropriate feedback mechanisms. This paper intended to examine the institutional standards published by Oman Academic Accreditation Authority (OAAA) for the compliance of Higher Education Institutions (HEIs). While this would be the first time for Oman to implement a system of accreditation, these standards (approved in March 2015) went through rigorous review and were formulated based on accreditation systems of other countries. Specifically, using the results chain and value chain tools for analysis, the criteria of the institutional standards were mapped to provide a framework for viewing the institutional standards as a system. By so doing, one would see the flow of value creating processes and results. The resulting map puts the institutional standards in the proper perspective and with better understanding, a more effective accreditation preparation could ensue.

METHODS OF ANALYSIS

Two methods were used in analyzing the criteria contained in the institutional standards. The first is the 'results chain' (World Bank Institute) which is a method of analyzing results as output, outcome, and impact. The direct result of an activity is an output. The result of several related outputs is an outcome and the result of several related outcomes is an impact. This method of analysis allows for the proper analysis of results and to see how results build on one another to achieve the final goal of the institution. The second method is the 'value chain' (Aderinto and Akintayo, 2002; Bonemann and Wiedenhofer, 2013; Dambudzo, 2013; Ellourmi; Hansen; Lauridren, 2010; Mahsa et.al., 2012; Ruskov; Sison et.al., 2000; van der Merwe and Cronje, 2004), used to identify and map the value-creating activities. Activities produce results. Habits (Duhigg, 2013) are activities that are repeatedly performed. By identifying and mapping the activities, the institution may be able to examine its habits in relation to the expected results as set forth in the standards.

Table 1. OAAA Institutional Standards and Criteria.

Standards	Criteria
Governance and Management	Mission, Vision and Values; Governance Structure, System and Roles; Management Structure, System and Roles; Institutional Affiliations for Programs and Quality Assurance; Strategic Planning; Operational Planning; Financial Management; Risk Management; Policy Management; Entity and Activity Review Systems; Student Grievance Processes; Health and Safety; Oversight of Associated Entities
Student Learning by Coursework Programs	Graduate Attributes and Student Learning Outcomes; Curriculum; Student Entry Standards; Teaching Quality; Research Components of Coursework Programs; Academic Integrity; Student Placements; Assessment Method Standards and Moderation; Academic Security and Invigilation; Student Retention and Progression; Graduate Destinations and Employability
Staff Research and Consultancy	Research Planning and Management; Research Performance; Research Funding Schemes; Consultancy Activities; Ethics and Biosafety; Intellectual Property; Professional Development for Research; Research Commercialization; Research-Teaching Nexus
Industry and Community Engagement	Industry and Community Engagement Planning and Management; Relationships with Industry and Employers; Relationships with Professions; Relationships with other Education Providers; Relationships with Alumni; Relationships with the Community at Large
Academic Support Services	Academic Support Services Planning and Management; Registry (Enrolment and Students Record); Library; Information and Learning Technology Services; Academic Advising; Student Learning Support; Teaching Resources
Students and Student Support Services	Students and Student Support Services Planning and Management; Student Profile; Student Satisfaction and Climate; Student Behavior; Career and Employment Services; Student Finances; Accommodation, Catering and Transportation; Medical and Counseling Facilities; International Student Services; Social and Recreational Services and Facilities
Staff and Staff Support Services	Human Resources Planning and Management; Staff Profile; Recruitment and Selection; Induction; Professional Development; Performance Planning and Review; Promotion and Other Incentives; Severance; Staff Organizational Climate and Retention; Omanization
General Support Services and Facilities	General Support Services and Facilities Planning and Management; Public Relations and Marketing; Communication Services; Facilities Management;

OAAA Institutional Standards

Oman's higher education institutions are required to go through the new system of accreditation. An HEI will need to be accredited in order to continue its operation. The process begins from an audit, which is conducted to help the institution prepare for the institutional accreditation and programs accreditation. All HEIs have been audited and are now preparing for institutional accreditation. The institutional standards for institutional accreditation have already been published as approved. Table 1 presents these standards and the corresponding criteria for each standard. The standards appear as independent compartments of criteria which can be viewed as a checklist for HEIs to comply. Indicators for each criteria were also provided but these indicators are still in discussion.

RESULTS AND DISCUSSION

Mapping the Results and Value Chain

To map the standards and criteria as a chain or results and activities, steps have to be taken to analyze them

using the results chain and value chain methods. The following are the steps used: 1) The criteria were identified as results or activities; 2) The results were classified as output, outcome, or impact; 3) The activities were arranged as primary or secondary; 4) The results were traced to the primary and secondary activities; and 5) The results and activities were presented as a map showing their relationships. Table 2 presents the result of steps one to three. Secondary activities support the primary activities in creating value. In other words, primary activities need the value created by secondary activities to create value that directly contribute to customer value.

The fourth and fifth steps trace the results to the activities, producing a map which places the different criteria in a certain perspective, no longer independently compartmentalized but presented as related parts of a system. Figure 1 presents the result of steps 4 and 5.

At the base of the map is Strategic Management. Like any enterprise, a long term view is required to manage the HEI. HEIs need to articulate their mission, vision, and values to provide purpose, direction, and principles. These are outputs of the process of strategic planning. Figure 1 is a generic map which shows that all HEIs are basically the same in that they are expected to achieve

Table 2. The Criteria as Activities and Results

Standards	Criteria				
	Activities	Results			Impact
		Output	Outcome		
Governance and Management	Primary	Strategic Planning; Operational Planning; Entity and Activity Review Systems	Governance Structure, System and Roles; Management Structure, System and Roles; Student Grievance Processes;	Institutional Affiliations for Programs and Quality Assurance;	Mission, Vision and Values;
	Secondary	Financial Management; Risk Management; Health and Safety; Policy Management; Oversight of Associated Entities			
Student Learning by Coursework Programs	Primary	Academic Security and Invigilation; Assessment Method Standards and Moderation; Teaching Quality; Research Components of Coursework Programs;	Curriculum; Student Entry Standards; Academic Integrity; Student Retention and Progression;	Graduate Attributes and Student Learning Outcomes;	Student Placements; Graduate Destinations and Employability
Staff Research and Consultancy	Primary	Research Planning and Management; Research-Teaching Nexus	Research Performance; Research Funding Schemes; Ethics and Biosafety; Intellectual Property;	Research Commercialization;	
	Secondary	Consultancy Activities; Professional Development for Research;			
Industry and Community Engagement	Primary	Industry and Community Engagement Planning and Management;	Relationships with Industry and Employers; Relationships with Professions; Relationships with other Education Providers; Relationships with Alumni; Relationships with the Community at Large		
Academic Support Services	Primary	Academic Support Services Planning and Management; Registry (Enrolment and Students Record); Library; Information and Learning Technology Services; Academic Advising; Student Learning Support;	Teaching Resources		
Students and Student Support Services	Primary	Students and Student Support Services Planning and Management; International Student Services;	Student Profile; Student Behavior;	Student Satisfaction and Climate;	
	Secondary	Career and Employment Services; Student Finances; Accommodation, Catering and Transportation; Medical and Counseling Facilities; Social and Recreational Services and Facilities			
Staff and Staff Support Services	Secondary	Human Resources Planning and Management; Staff Profile; Recruitment and Selection; Induction; Professional Development; Performance Planning and Review; Promotion and Other Incentives; Severance; Organization		Staff Organizational Climate and Retention;	
General Support Services and Facilities	Primary	Public Relations and Marketing; Communication Services;			
	Secondary	General Support Services and Facilities Planning and Management; Facilities Management;			

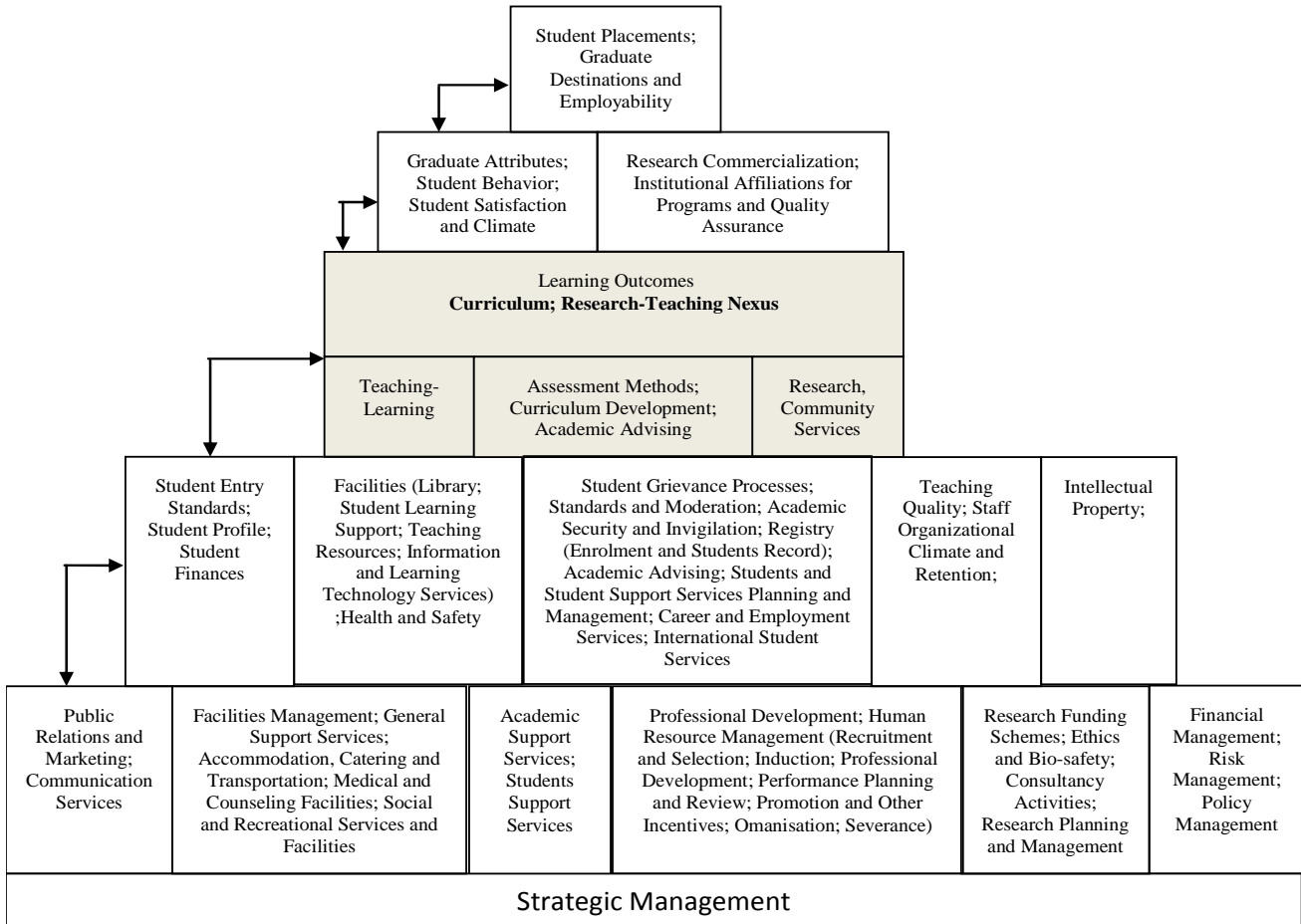


Figure 1. Results and Activities Map
Strategic Management of HEI

the goal of producing graduates who are going to contribute positively to nation building as professionals. Figure 2 below however summarizes the elements of the map into the HEI Strategic Management Pyramid. No matter how complex an HEI becomes it should never lose sight of the essential.

All HEIs must be ‘market driven’—to satisfy the customers by meeting their expectations. Matching the need of industry and aligning to the vision of the country must be top priority. Industry expects graduates with the right degrees, the right skills and behavior to be immediately productive. Ultimately, HEIs will be determined ‘effective’ only when the customers are satisfied—that is, when the graduates fulfill the industries’ expectations. HEIs may differ in fields of expertise and in the quality of their graduates due to the quality of their processes. At the heart of the HEI is its mission—

embodied in its curriculum (Bilbao et.al, 2014), which contains the teaching-learning-research-community services processes. The curriculum is designed as a transformation process. The learning outcomes are determined according to the graduate attributes required by the ‘market’. The appropriate content (including the input from research and community) and teaching-learning process are then decided to produce the outcomes expressed in terms of knowledge and behavior in the learner. However, when writing the curriculum, recommendations from government, industry, and the fields of study must be taken into account. The HEI must ensure that there is consistency between the recommended curriculum and the written curriculum. The written curriculum should be taught, supported and assessed accordingly, sans any hidden agenda as much as possible.

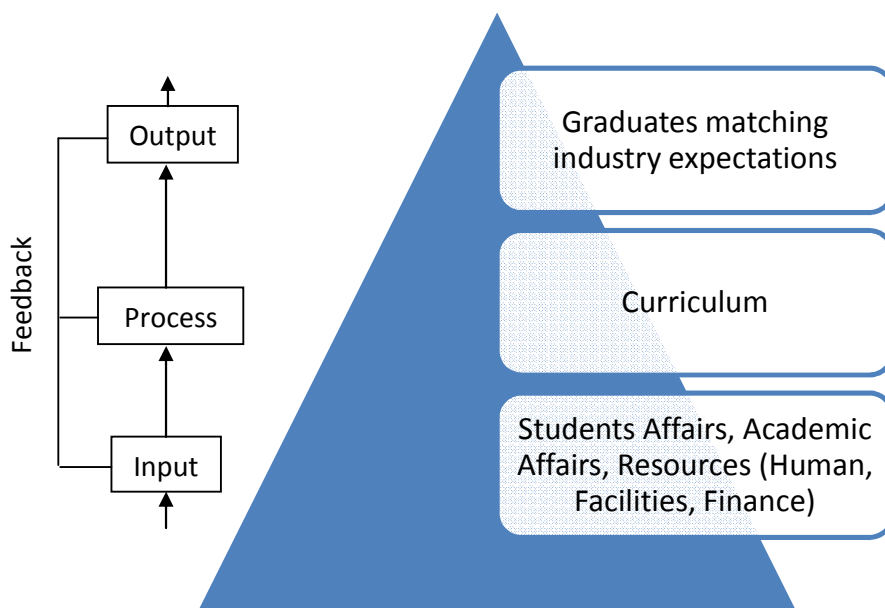


Figure 2. HEI Strategic Management Pyramid

As a system, the quality of the HEI depends on the degree of match between what is expected by the 'market' and what is produced by the curriculum. The quality of the curriculum depends on the quality of the inputs, which are outputs of the processes in the governance and management of Students Affairs, Academic Affairs, and Resources. Students Affairs includes the processes of recruitment and registration of students, and the student support services required. Students have to be carefully selected to make sure there is student-program fit—which means that students have the aptitude and right attitude for successfully completing the academic program. Academic Affairs involves the management of academic programs and the processes of ensuring the maintenance of academic standards. Finally, the management of Resources is responsible for the quality of human resources (the quality of teachers), facilities (learning resources including technology), and allocation of funds (prioritizing the requirement of the curriculum). As an open system, the HEI must be aware of its own context.

Proposed Approach to Accreditation Preparation

The ADRI (Approach-Deployment-Results-Improvement) model for continuous quality improvement has provided a practical guide in the process of evaluating internal quality management systems (Razvi et.al.). It is a continuous cycle of 1) setting objectives and aligning

resources to achieve these objectives; 2) executing the plan; 3) monitoring and evaluating results; and 4) learning from experience. The review panels of OAAA have used ADRI as analytical tool in Quality Audits. HEIs, therefore, have been preparing for accreditation using the same model. However, preparing for accreditation requires the use of ADRI with a certain consciousness—named here as the ISCF (Institutionalize-Standardize-Capture-Facilitate).

When an HEI plans, it needs to plan with the awareness that the planning process involves the whole institution. To improve quality is a conscious act of the institution. Quality must be imbedded in policies and procedures. The deployment of the plan, guided by policies and procedures, must be standardized across the institution. This means, there must be a deliberate act of the members to participate in the formulation of policies and procedures to ensure awareness, acceptance and practical understanding of how things are to be done. Results of activities must be captured for monitoring and evaluation. As a learning organization, the HEI can benefit from knowledge generated from the 'ground'. Capturing knowledge is very crucial in preparing for accreditation. Documentation of evidences is very challenging when it is captured at the time of preparation for accreditation—which is often right before the accreditation itself and not as a matter of habit (Duhigg, 2013). The value of the captured knowledge is in the lessons learned from it—lessons that lead to

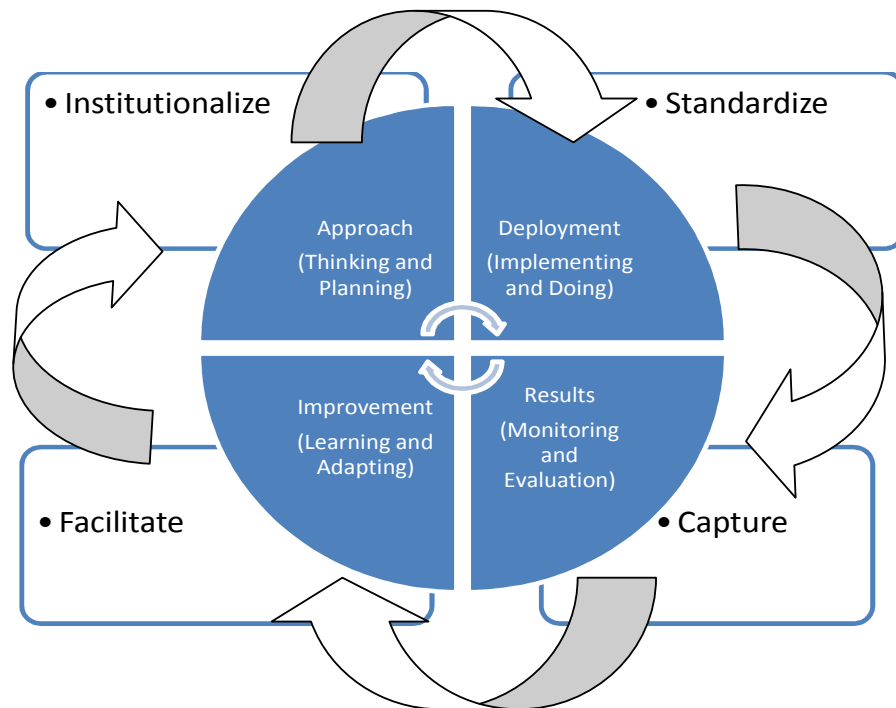


Figure 3. Approach to Accreditation Preparation

improvements of habits. However, change in habits must be facilitated and institutionalized in improved policies and procedures. Thus, as ADRI is continuous so is ISCF.

CONCLUSION

What this paper attempted to accomplish was to analyze the institutional standards of the OAAA for a better perspective in preparing for institutional accreditation. Using the results chain and value chain analysis tools, the institutional standards were presented in a map which was then simplified into the HEI Strategic Management Pyramid. Preparation is key to a successful application for accreditation. Preparation is not a process outside of the strategic management of the HEI—it is in strategic management itself. The HEI should never lose sight of the vision of contributing to nation building and its purpose which it carefully puts together in and delivers through its curriculum. Everything else the HEI does only has one goal—to support the curriculum.

Continuous improvement is natural to a learning organization. Continuous improvement is expected to come naturally in institutions of learning as learning organizations. Quality is in the habits of individuals and collectively it is in the culture of learning organizations. Preparing for accreditation therefore should be part of the

habits of the organization where ADRI is used with the ISCF consciousness. The Approach should be Institutionalized, Deployment should be Standardized, Results should be Captured, and Improvements should be Facilitated.

RECOMMENDATIONS

The institutional standards analyzed here are generic. HEIs are differentiated in the specifics. The concepts produced in this paper will need further consideration and empirical validation. Therefore, it is recommended that further research be made in this area. The list below is not comprehensive but may provide an orientation to further research:

1. Evaluation of habits of learning organizations towards accreditation.
2. Assessment of strategic management practices in the light of the ISCF consciousness.
3. Determine the relationship between the ISCF and successful accreditation preparation.
4. Evaluation of the effectiveness of the curriculum of HEIs in delivering market expectations.
5. Determining industry requirements and country priorities in terms of degrees, skills and behavior of graduates as input to the curriculum.

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