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ISO Alongside, Instead, or Inside?
The potential of ISO 21001:2018 to change and challenge higher education accreditation

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ABSTRACT

The recently released ISO standard, ISO 21001:2018, *Educational organizations Management systems for educational organizations Requirements with guidance for use*, is poised to have a significant impact on critical elements of quality assurance in higher education. Depending on the nature and extent of existing quality assurance structures, three potential use scenarios of the new standard appear possible: **ISO *Alongside*, *ISO Instead*,** and ***ISO Inside***. The Standard may be used as an adjunct to existing quality assurance approaches *(ISO Alongside).* Some quality assurance systems may opt to incorporate the attainment of ISO 21001 certification as the determinant of holding an accredited or approved status *(ISO Instead).* Finally, the achievement of ISO 21001 certification may serve as a pre-requisite to the application for specific recognitions or accreditations *(ISO Inside).*

Keywords: Accreditation, education quality assurance, higher education, ISO, International Organization for Standardization, ISO 21001:2018, ISO 9001:2015, EQAR, AASCB, EFMD, ACBSP, AMBA, ESG, European Higher Education Area (EHEA)

Introduction

Higher education today operates in an environment of global competition for reputation, talent, and students. The basis of that competition is increasingly focused on quality (Musselin, 2018). Quality as a concept of higher education is not easily defined, reflecting the complex relationships of higher education to students and the diverse roles of a student in the educational process. The International Organization for Standardization (ISO) has recently entered the fray with several new standards that may shape the view of quality in higher education much as the extensively used ISO 9001 standard has since its debut in 1987. This paper focuses on some of those potential impacts of one new education standard, ISO 21001:2018, which is focused on education organizations and thus may have significant implications on higher education quality assurance including accreditation.

Changing quality marks for higher education

Accreditation often serves as a coveted quality mark, which transcends national boundaries (Hazelkorn, 2011). The accreditation agency EFMD highlights the common drivers of seeking internationally recognized accreditation by noting:

> *With companies recruiting worldwide, with students choosing to get their education outside their home countries, and with schools building alliances across borders and continents, there is a rapidly growing need for them to be able to identify those institutions in other countries that deliver high-quality education in international management (Wanot, 2018).*

Despite the international character and reach of many higher education programs, agreement on one mark of quality is elusive. For example, it is common for business schools to pursue what is often called the *triple crown accreditation* of AACSB, AMBA, and EQUIS as a means to be globally relevant (MBA Today, 2019). The perceived need for multiple accreditations give rise to questions about individual accreditation agency shortcomings and why three separate accreditations are needed with up-front costs of over $100,000 along with multiple years and significant staff time.

Many educational disciplines and universities as a whole often chase global and regional rankings as an imperfect surrogate for measures of quality (Hazelkorn,2015). Furthermore, rankings and accreditation do not address the rapidly growing area of educational certificates, which now exceed the total number of degrees issued in the U.S. and often are offered by organizations other than higher education institutions or HEIs (Credential Engine, 2019).

In 2018 the International Organisation for Standardization (ISO) issued ISO 21001:2018, *entitled* Educational Organizations Management systems for educational organizations Requirements with guidance for use (International Organization for Standardization [ISO], 2018a). The new standard, based on the widely used ISO 9001:2015 may represent a turning point towards a more consistent and international quality mark for higher education.

ISO 21001: History and Development

ISO 21001:2018 was developed to be a part of the ISO 9001 family of standards, which was first introduced in 1987

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and is currently in use in 160 countries with nearly 900,000 registered certificates as of 2018 (ISO, 2018b). The 21001 Standard development was led by the Korean Agency for Technology and Standards with 86 expert members drawn from 39 national standardization bodies, plus multiple observer stakeholders (LaChapelle et al., 2018).

The development was a multi-year process spanning more than five years. Following the publication of the Standard in 2018, the responsibility for maintenance and coordination with other ISO standards was handed off to Technical Committee 232, led by DIN, the German Institute for Standardization (ISO, n.d.). The Committee has oversight for a total of seven standards spanning higher education both in higher education institutions and programs delivered by non-traditional providers such as certificate providers.

The sections of the ISO 21001 are shown in Figure 1 below.

Figure 1. Key clauses of ISO 21001:2018 (ISO, 2018a, p. 14).

Clause	Key elements
1 to 3	Prefatory material
4	Context of the organization • Understanding the organization and its context • Understanding the needs and expectations of interested parties • Determining the scope of the management system for educational organizations • Management system for educational organizations (EOMS)
5	Leadership • Leadership and commitment • Policy • Organizational roles, responsibilities and authorities
6	Planning • Addressing risks and opportunities • Educational organizational objectives and planning to meet them • Planning of changes
7	Support • Resources • Competence • Awareness • Communication • Documented information
8	Operation • Operation planning and control • Requirements for educational products and services • Design and development of educational products and services • Control of externally provided processes, products and services • Delivery of educational products and services • Release of educational products and services • Control of nonconforming educational outputs
9	Performance Evaluation • Monitoring, measurement, analysis and evaluation • Internal audit • Management review
10	Improvement • Nonconformity and corrective action • Continual improvement • Opportunities for improvement

ISO 21001:2018 follows the general structure of ISO 9001:2015, which is aligned with Annex SL, the norm for all ISO management standards. The Standard has two key areas: a core structure based on the PDCA improvement cycle and an overarching model termed an EOMS or management system for educational organizations (ISO, 2018a). Figure 2 below depicts the relationship of the PDCA cycle and the EOMS with the various sections of the Standard.

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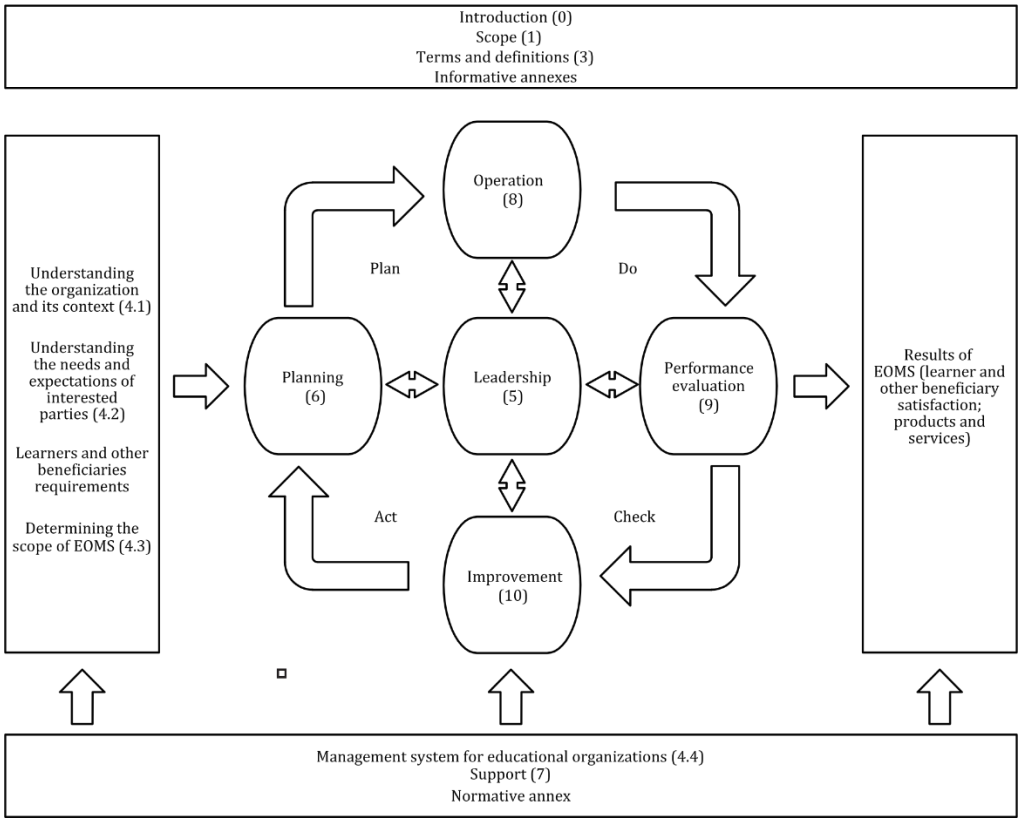
Figure 2. ISO 21001 EOMS (ISO, 2018a, p. ix)



HEIs desiring to use the Standard can do so under several certification scenarios. The scenarios represent three approaches:

- Self-assessment (first-party certification);
- External assessment through consultants (second-party certification); or
- Certification by an approved certification body (third-party certification).

The third option, the use of an approved certification body, is very similar to current models of HEI institution and programmatic accreditation with some key differences. Similar to accreditation, certification bodies are recognized by a sanctioned approval body, which has itself documented and implemented quality assurance processes under several ISO standards, ISO 17000,17020, 17021, and 17024. In contrast to higher education accreditation, the certifying bodies are not dedicated solely to education and may serve a variety of sectors, including business, healthcare, information technology, automotive, aviation, etc.

EOMS-A new perspective on the education enterprise

ISO 21001 introduces the idea of an operating system model for educational institutions, which uses the acronym EOMS. The operating system model is based on a foundational concept of using processes to define the key aspects of an organization. The ISO standard does not mandate any particular process approach, and there are many available from which to choose, e.g. Capability Maturity Model Integration (CMMI Institute [CMMI], 2018) or APQC's Process Classification Framework (APQC, 2018). As higher education transitions from exclusive reliance on in-person classroom teaching to technology-enabled education, process management grows in importance. Because of the use of an array of information and communication technologies, online education modalities require much higher levels of pre-planning and specification than in-person, face-to-face lecturing.

ISO 21001 is not exclusively oriented towards HEIs. The Standard covers any provider of instruction from pre-Kindergarten to graduate studies at universities. Vocational training is an example of how the Standard may expand standardized quality assurance beyond accreditation. Illustrative of the strong emphasis on alternatives to university education, the European Quality Assurance Framework for Vocational Education and Training (EQAVET) began as a project in 2019, VET21001, to provide tools and guidance for implementation of the Standard for vocational programs (EQAVET, n.d.).

The use of ISO 21001:2018 has been promoted heavily in several countries although adoption by HEIs does not yet appear to be widespread. An international school in India, Scottish High in Guragon, attained the first certification under the Standard in late 2018. (Scottish High International School, 2018). Adoption of the Standard in competitive

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education markets such as India is likely to accelerate as ISO 21001 becomes more well-known and is promoted by certifying bodies.

For other types of HEIs, the new standard is recognized as the start of a cycle of change towards more standardized approaches to quality in higher education (Schumann et al., 2019). In the European context, ISO 21001 is seen as a potential tool to define the required quality assurance system of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) (Anttila & Jussila, 2018). The ESG is used to guide the approval of accrediting agencies by the European Quality Assurance Register for Higher Education (EQAR).

As aptly noted by Anttila and Jussila (2018), the standard "will challenge all educational organizations, because it requires the adoption of the general basic quality concepts and quality management structures and practices" (p. 1070). One could question how the standard might displace, augment, or conflict with accreditation.

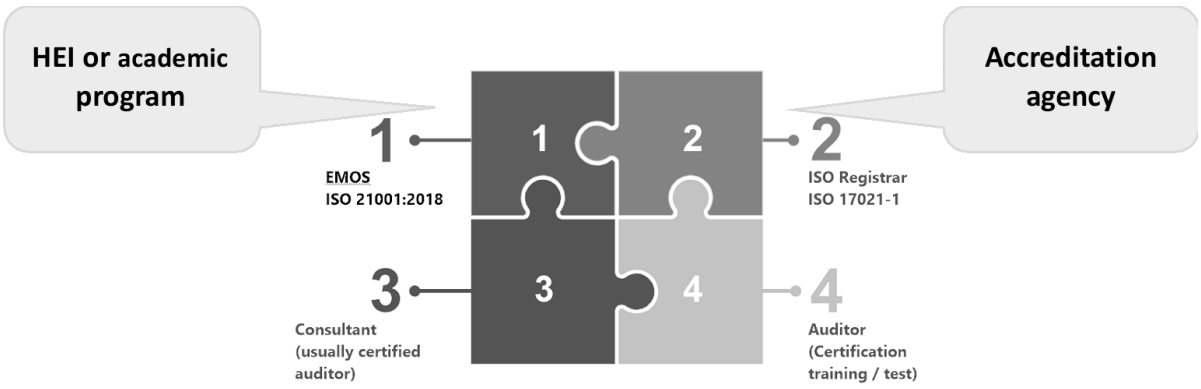
ISO 21001 and the ISO certification landscape

ISO 21001 exists within a landscape of practices and norms. Entities wishing to issue a certification as a registrar under ISO 21001, must be separately approved as a certifying body. ISO 17021-1:2015 guides the requirements. If an existing HEI accreditation agency were to seek status as a certifying body, it would need to comply with ISO 17021 and pass a certification audit. Adopting ISO approaches could, in turn, displace the peer-review processes in use by most HEI accreditation agencies as described below.

A further distinction from accreditation practice relates to the certification of reviewers/evaluators or *auditors* in ISO terminology. It is typical for ISO certifying bodies to require at least one auditor to have an external quality auditor credential, reflecting knowledge and application of a specified body of knowledge about the audit process. For example, ASQ offers such a credential known as the *Certified Quality Auditor* (ASQ, 2020a). TÜV, a German-based certification authority, offers auditor certification that is ISO-specific (TÜV., n.d.).

Figure 3 below depicts the elements of what might be a landscape of entities.

Figure 3. ISO 21001 Certification Landscape



The use of professionally certified auditors can represent a marked change compared to the practice of many accreditation agencies. Peer reviewers are often chosen based on being a *peer*, such as a dean or senior administrator, rather than specific knowledge and certification in audit and review skills. Furthermore, audit team composition for ISO audits also is intentional to reflect a mix of subject matter disciplines in addition to audit process knowledge. Not all team members may come from within the higher education sector, unlike the practice in accreditation.

Another significant change is the duration of the certification. ISO certificates are for a limited duration, usually three years, and require interim surveillance audits to ensure that the quality processes remain in place (Coletto & De Monte, 2019). The shorter validity period is in contrast to accreditation, which often grants decade-long authorization with reduced scrutiny in the interim period. Given the rapid changes occurring in higher education with technology and certificate-based education, a shorter review period may be a feature for ISO that demonstrates an advantage of ISO 21001 over accreditation.

Potential advantages of ISO 21001

There are several advantages to the use of ISO 21001 in an accreditation setting. ISO 9001, as the foundation standard, is well known globally as a quality mark in the business, government, nonprofit, and education sectors. Attaining ISO certification would be understood as indicative of a level of quality by the stakeholders external to education.

The use of a regularized approach to auditor and reviewer qualification provides a further advantage. Perceived professionalism may increase with the use of certified auditors and team members trained in the principles of effective quality reviews. Such professionalism can lead to a perception of a fairer and thorough review.

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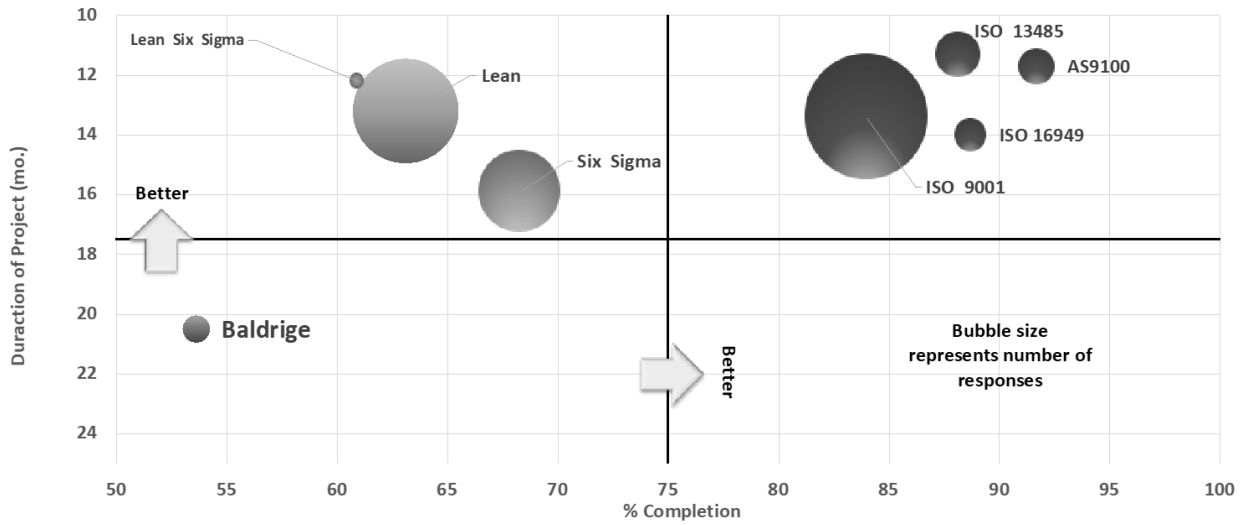
The short and limited duration of ISO certificates and the requirement of surveillance audits support a view that the quality assessment of the institution represents current reality rather than a decades-old history. The fluidity of educational certificate offerings rather than credits and degree programs will almost certainly require a more rapid and current quality assurance review system than delivered by accreditation today.

A final advantage lies in the relatively high institutional completion rates and relatively low time to completion for ISO projects. Figure 4 shows data from a large study presented in ASQ's *Quality Progress* publication. In this study, ISO projects, when analyzed, rested in a golden quadrant with lower times to completion and higher success rates over other quality efforts such as Lean, Six Sigma, and the Baldrige system.

Figure 4. Comparative success rates for quality systems. Adapted from Hansen (2018)



Accreditation efforts are known to span multiple years with some agencies boasting that no program can be accredited in less than five years. The organizational agility needed with a more fluid educational sector may make such extended timeframes unsustainable. If timeframes for ISO 21001 hold to those shown in this study, the ISO system may deliver the much-needed benefit of faster and more certain quality certification.

Further developments related to the Standard

ISO 21001 represents one part of an evolution of standards relating to education. The ISO technical committee responsible for 21001, ISO.TC 232, has published three standards in addition to 21001. The committee has three further standards in its work program, with one related to distance learning outside of formal learning. (ISO, n.d.). These additional standards will complement the existing standards and may create a more compelling case for the use of ISO certifications in HEI as the core for quality assurance and accreditation.

Also, ISO standards progress through cycles of revisions and updates every few years. For example, after the initial publication of ISO 9001 in 1987, the standard was revised in 1994, 2000, 2008, and 2015. Each cycle of revision often entails an increase in scope and coverage of the standard (ASQ, 2020b). Such development for ISO 21001 would mean revisions offering a more comprehensive scope nearer to accreditation standards.

Changes in a standard are designed to reflect user experience with implementation. As the number of ISO 21001 implementations grows, that experience may reflect how the Standard coexists with or displaces accreditation. New education offerings such as certificates may also influence the future contents of the Standard (ASQ, n.d.).

Impact on accreditation

It is too early to appreciate fully the impact that a standard may have on accreditation. The changes may be different depending on the scope of accreditation, e.g., institutional vs. specialized/programmatic, and the legal environment of accreditation. Based on developments with existing accrediting models, some potential threads emerge.

Merged accreditation and authorization. The model of merging accreditation with institutional authorization to grant degrees exists in several states in the United States. Under such a model, the attainment and maintenance of ISO certification could be an alternative pathway towards authorization. If implemented, this could allow a bypass of the gatekeeping function currently enjoyed by accreditors and allow decisions of independent ISO certifying bodies to substitute for today's accreditation process.

Blended regulation and accreditation. Countries and jurisdictions that blend educational regulation and

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accreditation, e.g., India, may incorporate ISO standards as a part of their overall standards and criteria. Although not a mandatory regulatory pre-condition, ISO certification has been used in practice by some education regulators, e.g., the UAE, as a condition precedent to additional program authorizations. The availability of a specialized standard for education may encourage more regulators to use it as a pre-condition to additional program authorizations.

EQAR and EHEA: A competitive market for accreditors. Within the European Higher Education Area (EHEA) context, it would be imaginable for an accreditor to seek EQAR approval based on an accreditation model using ISO standards, including ISO 21001. The accreditation process would likely rest on using the customary audit processes required by ISO registrars but applied in a manner consistent with the ESG. Given the international character of the EHEA, the use of an accepted international standard may be an appealing accreditation basis. The EQAR system also does not contain the rigid territorial or discipline-specific scope of accreditation limitations of the U.S. model. An ISO 21001-based accreditor might gain greater traction in this environment because the focus is on the quality assurance system, not on peer institution types and geographies of the 19th Century.

Specialized or programmatic accreditation. The impact on specialized or programmatic accreditation may be the most significant. Transnational employers could demand uniformity based on familiarity with the benefits of international business operations certification under ISO. Different market approaches taken by business program accreditors may provide some insight into potential approaches. AACSB, for example, was certified under ISO 9001:2015 in early 2019 (AACSB, 2019). One could ask if the next step for AACSB might be to seek status as an ISO registrar under the ISO 17020 series. Achieving registrar status would allow the agency to expand membership by certifying member schools under ISO 21001, even if those programs do not yet fit squarely within the agency's historic accreditation model.

AMBA, as a highly specialized accreditation model, may present a different avenue for the use of ISO 21001. AMBA historically has limited its scope of accreditation to MBA programs but has expanded its scope to include DBA and MBM programs (AMBA, 2019). The organization has recently created a second accreditation track for schools and programs outside of its traditional degree scope (Business Graduate Association, 2019). AMBA's efforts predate ISO 21001 but may signal a trend toward a bifurcation of accreditation into tiers based on factors such as school size, program offerings, and reputation. ISO 21001 could serve as the entry point in such a beginning-tier model and create ready-made starting tier standards.

None of the developments suggested above have yet come to fruition, given the recent publication of ISO 21001. Over the next few years, however, the new standard may serve as a basis for greater simplicity and transparency of accreditation for a transnational higher educational world.

Scenarios for the future: ISO Alongside, Instead, or Inside?

Potential scenarios for the influence of ISO on accreditation may be described as ***alongside***, ***instead***, and ***inside***. The HEI experience to date with ISO 9001 reflects an ***ISO alongside*** scenario. ISO 9001 has not displaced accreditation but tends to be an additional quality certification sought or required for certain HEIs and other providers. Such a situation reflects the current focus of accreditation on programs offering courses, credits, and degrees. With ISO 21001, it may be plausible that the triple crown designation is displaced by a quadruple crown with the addition of ISO certification.

An ***ISO instead*** scenario would require a major shift in accreditation practice away from peer- and discipline-based practices of review and recognition. Such a change could upend the entire accreditation enterprise. Significant change takes time because wholesale changes in education regulation unfold over decades, not years or months. Some areas such as the specialized or programmatic accreditors serving less regulated, non-licensure programs may see change sooner. Agencies such as AMBA, AASCB, ACBSP, and IACBE serve schools feeding students directly to business organizations, many of which use ISO certification for business operations. The demand for a transnational quality standard with independent recognition may well be felt first in this arena.

The scenario of ***ISO inside*** may prove tempting to settings where accreditation has meshed with regulation or authorization. Incorporating required ISO certifications into a regulatory web would allow regulators to offload supervision and oversight to a neutral third party. ISO standards serve as *de facto* regulatory norms in many sectors, including healthcare, IT, and aviation. For example, the healthcare accreditor DNV GL Healthcare incorporates ISO 9001 certification into its accreditation model (DNV GL, 2020). The approach exists within the highly regulated healthcare environment in the United States, a much more complex and challenging environment than higher education. It would not thus be surprising to see educational accreditation and quality assurance adopting a similar model.

Conclusion

The use of ISO 21001 in HEI quality assurance may prove a noteworthy development with potentially significant influences on accreditation processes. Higher education is an economic sector that has historically followed other service sectors such as healthcare, aviation, information/communications technologies, and financial services, in adopting consistent

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approaches to measuring and reporting quality. The further use of ISO 21001 may provide a useful step towards greater consistency of quality assurance in the sector.

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