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ADDED VALUE OF CERTIFICATION AND ACCREDITATION OF EDUCATIONAL QUALITY MANAGEMENT SYSTEMS

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Abstract
The paper presents a critical review of educational quality management systems and their implementation in Bulgarian higher education institutions. The accreditation of universities is implemented and supervised by the National Evaluation and Accreditation Agency (NEAA). Certification of quality management systems in universities is voluntary, and maintaining ISO 9001 certified status is a process that requires additional efforts and funding. Thus, what motivates universities to pursue and maintain such certifications is the perceived added value of the improved quality management system. Another ISO standard attracts the attention of quality managers in educational organizations - ISO 21001. Whether this standard will disrupt the existing quality management systems is debatable, but it is definitely an opportunity that needs further exploration.
Keywords: educational organization, university, quality management system, certification, accreditation, ISO 9001, ISO 21001.

INTRODUCTION

The most popular standard for developing a management system (MS) is ISO 9001 [1]. This fact is confirmed by the latest ISO Survey [2] which places this standard with requirements for a quality MS at the apex of all MS standards.

The value and potential benefits of a quality MS are stated in the "Introduction" section of ISO 9001. They include:

- "*the ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements;*
- *facilitating opportunities to enhance customer satisfaction;*
- *addressing risks and opportunities associated with its context and objectives;*
- *the ability to demonstrate conformity to specified quality management system requirements.*" [1].

To what these statements are valid for educational organizations is unclear.

In the current context of Bulgarian higher education institutions (HEIs), not all universities have implemented and certified quality MSs. Fig. 1 presents the results of an analysis based on the information published on the websites of 52 Bulgarian HEIs.

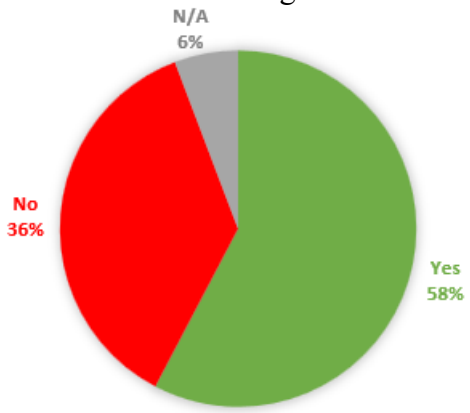

Fig. 1. *Relative share of ISO 9001 certified quality MS of Bulgarian HEIs*

The detailed analysis performed to establish the context of this research demonstrates that the majority of Bulgarian HEIs are ISO 9001 certified. 19 Bulgarian

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HEIs do not maintain an ISO 9001 certified quality MS, whereas 4 universities expand the requirements of ISO 9001 by integration with ISO 14001 for environmental MS, ISO 45001 for occupational health and safety MS, ISO/IEC 27001 for information security, cyber security and privacy protection, as well as the EFQM model for education.

To some extent, the fact that more than 1/3 of the Bulgarian HEIs do not maintain an ISO 9001 certified quality MS can be explained by the preference given to the required national accreditation of the HEIs and their respective programmes. In addition, they usually place quality and accreditation alongside in their organizational structures and websites.

The statutory body responsible for evaluation, accreditation and monitoring Bulgarian HEIs, scientific organizations and research institutes is the National Evaluation and Accreditation Agency (NEAA) [3]. The NEAA maintains a database of the accreditations given to HEIs and it can be used to compare the accreditation status and the development and implementation of a quality MS.

The average accreditation grade for all Bulgarian HEIs as of 2025-11-01 is 9,01 on a scale from 1 to 10. The range of accreditation grades is from 5,11 to 9,80. If the lowest grade of 5,11 is considered as an outlier, then the next lowest grade is 7,02.

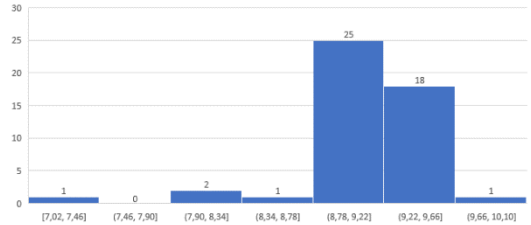

Fig. 2. *A histogram of the accreditation grades of Bulgarian HEIs*

The histogram shown on Fig. 2 differs significantly from the normal distribution and the value of the resulting negative skewness is (-2,72). This suggests that the accreditation criteria have low discrimination which makes it hard to distinguish the quality offered by Bulgarian HEIs. Thus, ISO 9001 certification, and more specifically ISO 21001 for educational organizations, could improve the overall image of universities and attract potential partners and students.

EXPOSITION

Certification to ISO 9001 and ISO 21001

ISO 9001:2015 certification has proven to be an important factor that shapes the positive image of Bulgarian HEIs. Most universities have updated their MS to the amendment of ISO 9001 that deals with climate action changes [4]. Furthermore, the maintenance of their quality MS is supported by meticulous audits, both internal and external, following the guidelines of ISO 19011 [5].

Nevertheless, after more than 30 years of wide application ISO 9001 fails to be a key differentiator of quality MS at universities. The added value of certification to an ISO MS standard can be sought in industry-specific standards.

The first edition of ISO 21001 "Educational organizations — Management systems for educational organizations — Requirements with guidance for use" was published in 2018 [6]. This standard is applicable to organizations of any size and at any stage of the educational system, whether kindergartens and elementary schools, to professional high schools, and ultimately to universities and research institutes.

The expectations of quality professionals in the educational domain have failed to materialize and this promising standard did not reach the popularity of ISO 9001.

In the summer of 2025, ISO published the second edition of ISO 21001 [7]. This standard is prepared by Technical Committee ISO/TC 232 "Education and learning services" alongside 8 published standards and 4 other standards under development.

The declared benefits of ISO 21001:2025 and their justification are as follows:

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- "*Aligns educational activities with mission, vision, and policy*": the core educational processes are detailed in Clause 8 "Operation". They stem from the 11 principles of an educational organization (EO) MS, and more specifically "visionary leadership", as well as requirements of Clause 5 "Leadership", and subclause 5.2 "Educational organization policy".
- "*Improves satisfaction of learners and staff*": this is an enhanced aspect of "Customer satisfaction" in ISO 9001. The same clause number (9.1.2) now demands that the EO monitors and then improves the "satisfaction of learners, other beneficiaries and staff". This also relates to EOMS principles "Focus on learners and other beneficiaries", "Engagement of people" and "Improvement".
- "*Supports inclusive and equitable education for all*": three additional EOMS principles are relevant to this benefit of ISO 21001- "Social responsibility", "Accessibility and equity", and "Ethical conduct in education". More specific requirements can be found in clauses 5.1.3 and 7.2.2 titled "Additional requirements for special needs education", as well as in clause 8.1.3 "Additional requirements for learners with special needs".
- "*Enhances credibility and trust in educational services*": a detailed list of potential benefits of an EOMS is provided in the Clause 0.2 "Relevance", which is part of the "Introduction" to ISO 21001:2025;
- "*Encourages innovation and continuous improvement*": this is based on the EOMS principle "Improvement" and the requirements for innovation and improvement that are stipulated in Clause 10 and its subclauses 10.1 "Continual improvement", 10.2 "Nonconformity and corrective action", and 10.3 "Opportunities for improvement". The standard ISO 56001 can be used as a best practice for innovation management systems [8]. Another opportunity for improvement is to integrate the MS with the standard for Artificial Intelligence (AI) MS, i.e., ISO/IEC 42001 [9]. These two standards also follow the common clause structure of Annex SL which makes their integration with ISO 9001 and ISO 21001 much easier.
- "*Helps meet the needs of learners with diverse needs, including distance and lifelong learners*": in additional to special needs education, the implementation can be augmented by integration with ISO 29994 [10] for distance learning and ISO/TR 29996 [11] with case studies that demonstrate various distance and digital learning services.

The Case of the Technical University of Gabrovo

The latest edition of the quality manual of the Technical University of Gabrovo is aligned to the requirements of both standards – ISO 9001 and ISO 21001. The integration begins with a critical comparative analysis of the 7 quality management principles of ISO 9000 and the 11 educational organization management principles stated in Annex B of ISO 21001. The clarity of the principles enables better awareness, understanding and adherence to the requirements of the quality / educational organization MS.

The elaboration of the complete list of requirements for the university's internal quality management system is the result of a gap analysis. It is based on a "clause by clause" and then "word for word" comparison. Starting from the latest edition of Annex SL of the ISO directives that serves as a "backbone", the specific requirements of ISO 9001 and ISO 21001 are highlighted.

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The new edition of the quality manual uses the previous, sixth edition as a basis for improvement. The revised, seventh edition contains additions related to climate changes as required by [4]. Most of the updates contain hyperlinks to relevant international, national and organizational documents that refer to educational quality.

The internal quality management system of the Technical University of Gabrovo is intrinsically intertwined with the accreditation criteria of the NEEA [3]. The successful institutional accreditation is supported by the accreditation of the following professional fields, and also 29 doctoral programmes in these professional fields:

- 3.4 Social work;
- 3.7 Administration and control;
- 5.1 Machine engineering;
- 5.2 Electrotechnics, electronics and automatics;
- 5.3 Communication and computer equipment;
- 5.6 Materials and material science;
- 5.13 General engineering.

The internal auditing process enables better monitoring capabilities and uncovers opportunities for improvement prior to visits by the NEAA for post accreditation monitoring and control (PAMC) activities. While the internal auditing process at the Technical University of Gabrovo is based on ISO 19001 [5], there is no direct reference to this standard in the procedures of the NEAA.

Ideas for Improvement of the Existing Quality and Educational Organization MSs

If the quality MS transition from ISO 9001 to ISO 21001, it is advisable that the NEAA considers ISO/TS 21030:2023 [12] and its requirements for bodies providing audit and certification of educational organizations' management systems. The annexes to this standard provide information about:

- the duration (number of days) of audit activities, including formula, as well as increasing and decreasing factors;
- the specific knowledge and skills (skills for taking notes and writing reports, audit management, presentation, interviewing and language skills) arranged by competence areas (educational MS, audit principles, practices and techniques, specific standards and normative documents, the educational subsector, etc.) and aligned to the Plan-Do-Check-Act (PDCA) cycle.

ISO is preparing another Publicly Available Specification (PAS) which will contain guidelines for the auditors of educational organization MS [13].

For the universities that decide to integrate their MS with ISO/IEC 42001 for Artificial Intelligence (AI) MS, a draft of the standard ISO 29999 [14] is meant to provide guidance for the ethical application of AI technology in education and learning services.

The current revision status of ISO 9001 and ISO 19011 is as follows:

- the draft of the sixth edition of ISO 9001 [15] is at the end of its ballot that started on 2025-08-27 and is supposed to last for 12 weeks. The sixth edition is expected to be published in the second half of 2026 if all stages are completed without major issues;
- the fourth edition of ISO 19001 is also at the draft (DIS) stage as of 2025-06-10 when voting the DIS was closed [16]. Three possible actions are expected from now on: 1) if the draft is rejected, then it would be referred back to the Technical Committee ISO/PC 302 “Guidelines for auditing management systems”; 2) if there is insufficient support for the DIS, then a decision for a new ballot will be made; and 3) if the DIS is

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approved, then it will be registered as a Final Draft International Standard (FDIS).

In summary, the managers of quality MSs have to react to the dynamic changes to remain adequate to the educational context.

CONCLUSION

This paper has presented the context of Bulgarian HEIs in relation to their accreditation grades and certification status.

The added value of developing and maintaining an ISO 21001-based MS is justified. Additional supporting standards are proposed to facilitate the achievement of maximum benefit.

It is suggested that the existing accreditation scheme is revised to allow better differentiation between Bulgarian HEIs and to align with global best practices made available through ISO standards.

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