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# ADOPTING ISO 9001:2015 & ISO 21001:2018 EOMS TO THE SRI LANKAN HIGHER EDUCATIONAL INSTITUTIONS: A REVIEW OF LITERATURE

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## ABSTRACT

*Higher education is the critical economic sector that is eventually followed by all other major service sectors in an economy such as financial services, healthcare, telecommunication, aviation, transportation etc. Today, higher educational institutions all over the world operate in a fast-dynamic environment with high competition for reputation, talent acquisition, and student attraction. Following the basis of that high competition that is leading to a significant focus on quality. It is not easy to define the quality in terms of higher education since due to the complexity in relationships of higher education to students and the different roles played by a student in the higher education process. Addressing the issue, International Organization for Standards (ISO) has recently published a new quality framework for higher educational institutions; ISO 21001:2018 EOMS and most of the institutions adopted ISO 9001 standard series until the publication of the new ISO standard for higher education. This study employs an evidence-based approach and systematically evaluates the existing literature on ISO QMS implementation in higher education institutions in different countries with the intention of elaborating on the necessity of adopting it in the Sri Lankan context. Further, it attempts to summarize the key benefits, challenges, and critical success factors of ISO implementation considering Sri Lanka. According to the findings, the key benefits of ISO adoption by higher education institutions are cost reduction, consistent customer satisfaction, risk management, international recognition, adopting rapid changes, attracting grants/ funds, and strengthening international linkages and relationships. In addition, the challenges and critical success factors which were extracted from the literature are also stated for easy implication. Thus, the study highly recommends implementing ISO-standardized quality management systems in all higher education institutions in Sri Lanka to mitigate the serious limitations while achieving international recognition for all educational programmes to finally generate a quality workforce for the economy.*

**KEYWORDS:** *Quality, ISO 9001:2015, ISO 21001:2018, Higher Education, Sri Lanka*

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## 1. INTRODUCTION

The higher education sector comprises educational institutions that provide systematic learning opportunities for individuals to acquire vast knowledge in different fields (Sitopu *et al.*, 2024). Higher education institutions (HEIs) serve as a catalyst for nurturing individuals' capabilities to leading towards pioneering transformations in different sectors in the modern society. In response to evolving needs in higher education, institutions are compelled to enhance their efficiency by being quality oriented (Shiong Pong, 2023; Tubagus and Fathurohman, 2023; Sitopu *et al.*, 2024). HEIs as pioneers of social transformation, they are capable of fostering creativity and developing innovative, high-quality and responsive leadership approaches to contribute to the global developments and local challenges while having foresight to identify future trends.

Quality consists of several general principles that are being upgraded with time. The prominent quality principles at all times include customer satisfaction, continuous development, teamwork practice, decision-making based on facts and data, empowerment and problem-solving (Evans and Dean, 2000). In addition, the literature provides quality dimensions elaborating on the higher education sector. In the late 90s, Garvin, 1987 provided the eight quality dimensions given in Table 01, which elaborate on how they can be applied in higher education.

Developing and following a proper quality management system is one of the critical responsibilities of all HEIs (Hernandez, 2010). Even though HEIs are liable to maintain a proper quality assurance mechanism, typically there are no standard specifications for the structure and contents of such a system. Therefore, HEIs have the freedom to develop their own quality assurance system and procedures to align with the institutional strategic and operational objectives. Further, that autonomy permits HEIs to obtain external support to audit the quality assurance system and to choose the internal quality assurance systems as they intend (Kettunen, 2012). Accordingly, the non-availability of a standard quality assurance mechanism that could be applied generally across all HEIs has created several issues in the field of higher education worldwide. Such issues caused a huge quality gap among HEIs operating under the same conditions, unnecessary competition among the students when choosing some HEIs, not having proper recognition for some programmes offered by several HEIs and the contents of the programmes are not being updated to fit with the industrial requirements can be highlighted (Kistan, 1999).

**Table 1 : Eight quality dimensions and their relevancy in higher education**

| Quality Dimension | Applications in Higher Education |
|---|---|
| Performance | Primary knowledge & required skills for graduates |
| Features | Supplementary knowledge and skills (Secondary) |
| Reliability | The accuracy and update of the knowledge and skills provided. |
| Conformance | The extent to which an institution meets established standards, plans, and promises. |
| Durability | Depth of learning |
| Serviceability | How well an institution handles the complaints of the customers. |
| Aesthetics | The attractiveness of programmes and teaching methods. |
| Perceived quality | Overall satisfaction |

In the way of finding solutions for the above issues and mismatches in higher education, HEIs in many countries in the world have taken action to adopt ISO standards for all possible levels, procedures, and stages of their educational programmes (Singh and Sareen, 2006). Before 2018, ISO Standardization had not covered the educational sector or established a separate standard for it. Therefore, educational institutions have adopted ISO 9001 since its founding version of 1987

and followed the subsequent versions in 1994, 2000, 2008 & 2015. Since ISO 9001 is directly related to the manufacturing sector, it might cause some ambiguity in the practices in the educational sector. Accordingly, ISO published a new quality standard for the education sector, ISO 21001:2018 EQMS which specifies requirements for a management system for educational organizations (Kovalenko *et al.*, 2020). The Sri Lankan higher education system is also facing the same issues mentioned above due to the non-availability of a general quality assurance mechanism which assures the overall quality of the different types of processes adopted and services rendered by HEIs. Even though a few national and private universities follow standard quality control systems under the supervision of the University Grants Commission, many HEIs in Sri Lanka do not follow sophisticated quality control systems aligned with international standards.

A research gap exists as there is limited attention towards adopting internationally accepted quality frameworks in Sri Lankan higher educational institutions. This research seeks to bridge this gap by conducting research on adopting ISO quality standards in HEIs employing a systematic literature review since most international universities have already reaped benefits by adopting ISO standards. Accordingly, this study aims to identify the prevailing conditions of adopting ISO 9001 and ISO 21001:2018 EOMS into HEIs in terms of international viewpoint, benefits and challenges of adopting ISO 9001 and ISO 21001:2018 EOMS into the HEIs and Critical Success Factors (CSFs) of adopting ISO 9001 and ISO 21001:2018 EOMS into the HEIs. This will enable us to provide a comprehensive overview of the existing research landscape while shedding light on the directions towards adopting ISO in HEIs. By synthesizing existing knowledge, this paper will contribute a holistic understanding of the aspects of ISO adoption into HEIs, paving the way for future research directions and offering practical implications for Sri Lankan HEIs striving to enhance their quality practices.

This research fills the research gaps by identifying and analysing existing research works on ISO 9001 and ISO 21001:2018 EOMS adoption into the HEIs, to provide a holistic understanding of the key areas to be considered for implementation or further research within the Sri Lankan context. The research questions (RQs) are.

**RQ 1.** What is the current situation of adopting ISO 9001:2015 and ISO 21001:2018 EOMS quality standards into the HEIs in terms of global viewpoint?

**RQ2.** What are the benefits of adopting ISO 9001:2015 and ISO 21001:2018 EOMS quality standards into the HEIs?

**RQ3.** What are the CSFs of adopting ISO 9001:2015 and ISO 21001:2018 EOMS quality standards into the HEIs?

**RQ4.** What is the possibility of adopting ISO 9001:2015 and ISO 21001:2018 EOMS quality standards into the HEIs?

Further, this comprehensive study will foster a greater understanding of adopting ISO 9001:2015 and ISO 21001:2018 EOMS quality standards in Sri Lankan HEIs, and it will contribute to the researchers, practitioners and policymakers interested in this domain.

## 2. METHODOLOGY

The primary objective of this study is to investigate the suitability of adopting ISO quality standards (ISO 9001:2015 & ISO 21001:2018 EOMS) in Sri Lankan HEIs to enhance their overall quality aligned with international standards. It would provide reasonable solutions for most of the severe issues in the Sri Lankan higher education system. The evidence-based approach was followed to analyze the existing literature. Therefore, the research approach is analytical and explanatory in nature based on the existing literature. Since it was hard to find literature which addresses the ISO quality standards implications in Sri Lanka, literature relating to the implication of ISO standards in HEIs in other countries was mainly considered.

In this study, the Systematic Literature Review (SLR) approach which was described by Tranfield, Denyer and Smart, 2003 was used to implement a comprehensive assessment of existing literature in the study field. The articles were selected adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, as suggested for

SLRs (Page *et al.*, 2021). Further, the PRISMA approach is well recognized in different research fields including business and management as a standardized method for conducting SLRs (Zahari and Kaliannan, 2022; Aslam and Jawaid, 2023; Olawade *et al.*, 2023). The PRISMA framework provides a structured approach for conducting systematic reviews (Liberati *et al.*, 2009) while it was selected due to its widespread acceptance by many researchers and the possibility of straightforward implementation (Moher *et al.*, 2009). The article selection process of this study followed by the PRISMA guidelines is shown in Figure 01.

In the first stage of the study, the identification of relevant articles was done by searching predetermined terms in selected prominent databases; Emerald, Science Direct, Springer, JSTORE & IEEE. The time span considered for article selection was from 1987 to 2023, since the ISO 9001 standard was published in the year 1987. The search terms were carefully determined and included in the above databases utilizing the "AND" and "OR" Boolean operations to ensure the inclusion of all relevant scholars' works. Finally, the dataset retrieval was carried out from 1987 to 2023 by inserting the following search terms (("higher education institutions" OR "HEIs" OR "universities") AND ("ISO 9001" OR "ISO 21001")) within the title, abstract, and keywords of the existing scholarly studies. A total of 602 publications resulted from the initial search within selected databases. Then the various document types, such as books chapters, conference reviews, editorials, conference papers and repeated articles were excluded. Finally, 321 articles were considered for screening.

Then the remaining 321 publications were evaluated for eligibility following a meticulous manual review. The title and abstracts of each publication were carefully screened to assess their relevancy to the implication ISO 9001 & ISO 21001:2018 EOMS within higher education institutions. A total of 253 publications were excluded due to their focus on other ISO standards, general aspects of the implementation of ISO 9001 and or implementation of ISO 9001 in other industries instead of focusing specifically on HEIs. Subsequently, only 68 articles were selected to be considered for reviewing systematically.

## 3. RESULTS AND DISCUSSION

### Higher Education System in Sri Lanka

The University Grants Commission of Sri Lanka (UGCSL) is the apex body of the university system in Sri Lanka, which was established on 22nd December 1978 under the Universities Act No. 16 of 1978. The functions of the UGCSL are planning and coordinating university education, allocation of funds to Higher Educational Institutions (HEIs), maintenance of academic standards, regulation of the administration of HEIs and regulation of admission of students to HEIs (https://www.ugc.ac.lk/). As per the UGCSL, the updated details regarding the composition of the Sri Lankan higher education system have been summarized in the table 02.

According to the figures in table 02, nearly 76 HEIs are operating in Sri Lanka under the direct and indirect supervision of UGCSL. Therefore, it can be concluded that the Sri Lankan higher education system mainly consists of the above institutions. Currently, many foreign universities offer degrees in Sri Lanka by establishing their branches or in association with private universities. In addition, there are some major professional institutions which offer internationally accepted qualifications which have equal recognition as undergraduate and postgraduate programmes. Even though such foreign universities and professional institutions also significantly contribute to higher education in Sri Lanka, their quality management systems were not considered for this study since they are following separate frameworks provided by international and foreign entities.

### ISO 9001 QMS and higher education

Favourable and unfavourable effects of the ISO 9001 standard depend on specific contextual factors, and identifying those factors would help to improve its practical implications by enhancing organizational efficiency and mitigating the risk of misconduct (Boiral, 2011). However, ISO certification should consider as a learning process involving its own drawbacks and benefits and sometimes surprises,

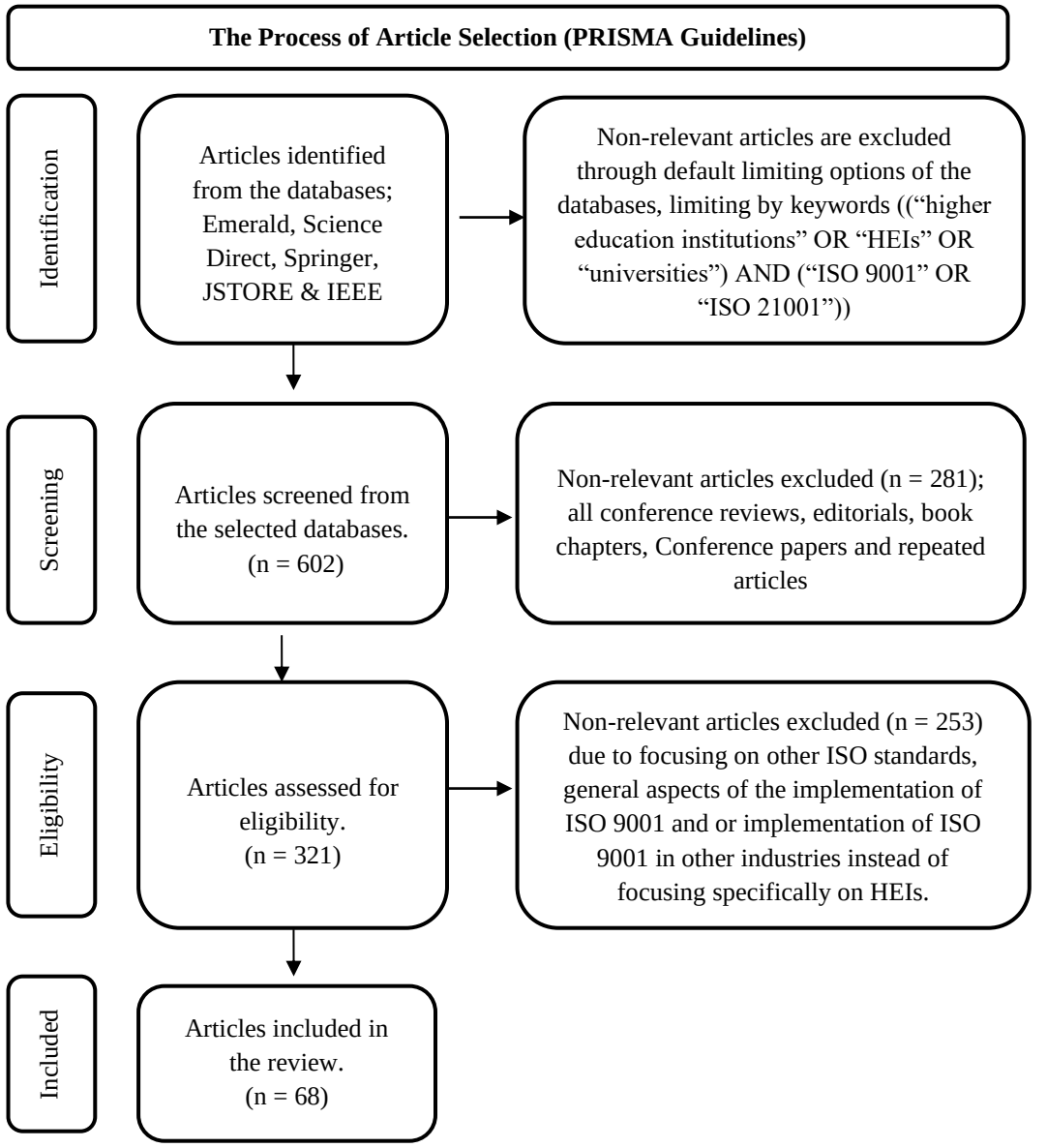


**Figure 01: PRISMA Statement (Figure courtesy of Moher et al., 2009)**

instead of being taken as a specific goal of just accreditation of the standard (Moturi and Mbithi, 2015). Further to achieve the best outcomes of ISO 9001 implementation, continuous evaluation of data relating to processes, system performance and feedback received from customers must be evaluated and discussed conducting regular management review meetings in order to identify the potential growth opportunities and take corrective and preventive actions (Wahid, 2012).

Even though ISO 9001 is originally focused on industrial background, many service organizations also have adopted it. According to the ISO report (2009), 40 per cent of all ISO 9001 certificates are accounted for service organizations in the year 2008. In particular, the growing interest of higher education institutions to

adopt ISO 9001 has also been observed by some authors since early 2000 (Thonhauser and Passmore, 2006). The main reasons for the adoption of ISO 9001 by many HEIs that could be found from the literature are high competition among educational institutions to attract and retain more students, pressure from governing bodies requesting HEIs to implement continuous processes to promote and improve the quality of education and to make the efficient use of resources to ensure the accountability towards stakeholders and the funding bodies (Gamboa and Melao, 2012).

**Table 2: The composition of the Sri Lankan HEIs**

| Institutional Type | No of Institutions |
|---|---|
| Public Universities | 17 |
| Public Campuses | 2 |
| Public Higher Educational Institutions | 19 |
| Other Government Universities which are established by Acts of Parliament of Sri Lanka | 06 |
| Degrees of Institutes Recognized under Section 25 A of the Universities Act No. 16 of 1978 | 06 |
| Degree awarding status granted by the Ministry of Education (Specified authority being the Secretary, Ministry of Education) | 23 |
| Professional Qualifications Recognized as Entry Qualifications for Postgraduate Degrees. | 02 |
| Programmes offered by universities established under Separate Parliament Acts. | 01 |
| **Total** | **76** |

At the initial stage, some authors (Peters, 1999; Labaree, 2000) questioned the relevancy of ISO 9001 to higher education. Others (Moreland and Clark, 1998; Sohail, Rajadurai and Rahman, 2003; Stimson, 2003; Bae, 2007; Costa *et al.*, 2009) revealed the suitability and positive impacts of implementing the early versions of ISO 9001:1994 & ISO 9001:2000 in higher education. In addition, many authors examined the outcomes of implementing the latest versions of ISO 9001:2008 and ISO 9001:2015 in higher education.

**The ISO 21001:2018 EOMS and higher education**

In the year 2018, ISO published ISO 21001:2018 EOMS a new standard to fulfil the requirements of a specific Quality Management System for educational systems. This standard facilitates educational institutions to achieve continuous improvement by implementing a standardized management system. Although the content of the new standard ISO 21001:2018 incorporates all key concepts of ISO 9001, ISO suggests, educational institutions should permanently discontinue ISO 9001 and transfer to the certification of ISO 21001:2018 EOMS to avoid the inconclusiveness of some areas in ISO 9001 (ISO, 2019).

The educational community might take a considerable period to fully acknowledge and recognize the new standard; ISO 21001:2018. One of the main goals of ISO certification is to boost the corporate profile in marketing strategies. Therefore, more success stories are required to get the attention of educational institutions to adopt ISO 21001:2018 as it is not more popular than ISO 9001 (Wibisono, 2018). Similar to other ISO standards, ISO 21001:2018 is also based on the Plan-Do-Check-Act principle (PDCA principle). It helps organizations to evaluate all the areas of standardization including the focus on social responsibilities and other related aspects. Implenatiation of ISO 21001:2018 generates endless advantages towards the educational sector including better alignmentment of the standard requirements and tasks with the organizational internal policies (Kovalenko et al., 2020).

Although literature that elaborates on the implication of the early versions of ISO 9001 such as ISO 9001:1994 and ISO 9001:2000 in HEIs across the globe is limited, there is sufficient literature with evidence for many

successful cases of implementing the later versions of ISO quality management system standards such as ISO 9001:2008 and ISO 9001:2015 in higher education. In addition, a few studies provide successful cases of implementing the newest version of the ISO quality standard for education, ISO 21001:2018. Accordingly, the benefits and successful cases of the three main ISO quality management systems (ISO 9001:2008, ISO 9001:2015 and ISO 21001:2018) on higher education observed from the literature are presented in the next two sections.

**The common benefits of ISO standards; Incorporated into HEIs**

In the early 1990s, many organizations started to adopt and implement ISO quality standards, spreading over both government and international organizations (Elgobbi, 2014). According to Brown, 2013, many business entities have initially attempted to obtain ISO certifications to get the government's tenders and enter certain markets. Some researchers revealed that the need of many organizations for ISO certification is based on combined internal and external motives (Tsiotras and Gotzamani, 1996; Beattie, 1999; Yahya and Goh, 2001; Khan, 2003; Blessner, Mazzuchi and Sarkani, 2013) According to the studies conducted by Zaramdini (2007) & (Fotopoulos, Psomas and Vouzas, 2010), ISO 9001 certification would help business organizations to improve their internal functions and performance ensuring standardized quality systems for both manufacturing and service processes.

Other studies conducted in different periods (Arndt and Kustin, 1997; Sampaio, Saraiva and Guimarães Rodrigues, 2009; and Blessner, Mazzuchi and Sarkani, 2013 have revealed that the implementation and application of ISO practices adhering to its general requirements enables the business organization to supply their products and services ensuring the consistent customer satisfaction. Further, the same studies elaborated that some entities have accredited ISO 9001 certification as they strongly believe that the failure to accomplish the requirements of ISO would generate unfavourable impacts on their success and growth. In addition, ISO certification provides an internationally accepted third-party guarantee for their main business and management processes.

The effectiveness of implementing ISO 9001 can be measured by evaluating the levels that the organization has achieved the standard's objectives namely, focusing on customer satisfaction, continuous improvement, and the prevention of non-conformities. Therefore, the effectiveness of ISO 9001 has a direct and vital impact on the operational performance and product quality of the certified entities (Psomas, Pantouvakis and Kafetzopoulos, 2013) The implementation of ISO standards leads to creating favourable impacts on the work culture and routine task management (Muslim and Suradi, 2012).

**The specified benefits of ISO standards towards HEIs**

According to several studies that have been carried out in Malaysian universities, the right implementation of ISO 9001 standards within the HEIs at the right time leads to significant favourable changes resulting due to the incorporation of well-defined management processes and proper risk management strategies in the process of standardization. Further, the incorporation of ISO 9001 enables Malaysian universities to face challenges and opportunities arising due to technological advancements more confidently. In addition, the development of quality management systems for HEIs aligns with the requirements of ISO standards and helps them to successfully survive in the competitive markets and to be updated in terms of information, creativity, innovation and quality (Othman, Mokhtar and Asaad, 2017).

Andiva & Simatwa (2018) revealed that the preparation of course outlines and timetables adhering to ISO 9001:2008 quality management systems ensure good coordination and considerable cost reduction with maximum customer satisfaction. Further, their study has confirmed that 80% of outcomes with guaranteed service quality can be achieved by utilizing only 20% of resources as a result of adhering to the ISO 9001 quality management system. The findings of the same study revealed another set of massive benefits for HEIs. The accreditation of ISO 9001: 2008 quality management system in universities contributes to attracting grants and funds, esteemed internship

opportunities and strengthening local and international linkages and partnerships with the professional demands. Good partnerships and linkages can be considered as the pillars of HEIs that sustain their development and vibrancy. Thus this recent study emphasizes that the ISO quality management system was a significant determinant of service quality in universities.

The findings of Moturi and Mbithi (2015), a study conducted regarding the implementation of ISO 9001: 2008 QMS at the University of Nairobi present that significant favourable changes have been established due to the institutionalization of ISO quality management systems into the university processes, working environment, record and documentation management, infrastructure and facilities, customer satisfaction, library system and the application of ICT for performance improvement. In addition, the same kind of benefits of implementing ISO 9001:2008 & ISO 9001:2015 QMS in HEIs mentioned above has been reported by many scholars based on their studies conducted across different regions in the world (Supradith, 2001; Bae, 2007; Vusa *et al.*, 2016; Diaz and Mediano, 2018; Balahadia, Dalugdog and Cabiente, 2022; Amalia, Susanti and Asbari, 2023).

Even though the least literature is available regarding the implementation of ISO 21001:2018 EOMS, Gilbert, (2020) explained that the recently introduced ISO standard ISO 21001:2018 EOMS for higher educational organizations includes all requirements and guidance for use, and it is composed to have a vital impact on the critical elements of quality assurance in higher education. According to his study conducted based on USA HEIs, ISO 21001:2018 introduces an operating system model for educational organizations. The operating system model always clearly defines the key aspects of processes used in an organization. It is beyond the general quality practices and must adopt quality management structures continuously in their practises. The ISO 21001:2018 standard does not limit to any specific process approach, and many forms are available to choose from. Therefore the process management approach is much more practical since there is a transition in higher education from in-person classroom learning methods to technology-enabled education engaging with the array of ICT and online education modalities. The duration of ISO certification is also important. ISO certification has a limited duration, which is usually three years, and it needs interim surveillance audits to ensure whether the processes remain in place with quality. The shorter review interim period of ISO 21001:2018 over its accreditation is a demonstrative advantage for higher education due to the rapid changes occurring in certificate-based education and technological advancement (Coletto and Monte, 2019).

For all kinds of HEIs, the recent ISO standard (ISO 21001:2018) is recognized as the beginning of a cycle of change towards highly standardized approaches to quality in higher education (Schumann et al., 2019). According to Anttila and Jussila (2018), ISO 21001:2018 is evolving as a potential quality tool to define the quality assurance system of the guidelines and standards for quality assurance in the European context. The application of ISO 21001:2018 has been promoted vastly among many countries although the adoption of the new standard by HEIs does not appear to be widespread (Arief and Efgivia, no date; Abdulsalam, 2022; Syahrullah et al., 2022; Emanuel and Santoso, 2023) .

**Challenges of adopting ISO in HEIs**

According to the literature, the challenges of adopting ISO quality management systems in HEIs are mostly associated with internal institutional problems. It is worth identifying the major challenges in advance to mitigate the risk of being unsuccessful in ISO implications. The main challenge is the inadequate commitment from faculties and staff members as the majority consider ISO QMS as an additional workload rather than an improvement process. The lack of resources, physical infrastructure, and other facilities available for the complete implication of QMS is another challenge. The requirements of proper documentation control mechanism including easy access to all reference documents and maintaining a complete set of records is also a big challenge. Collaborations with external parties, some of which are not certified, becomes a barrier to establishing a standardized QMS. Inadequate communication among

both internal and external stakeholders lowers the effectiveness of QMSs (Kasperaviciute, 2012; Moturi and Mbithi, 2015).

**Critical Success Factors (CSFs)**

The identification of CSFs is essential for the sustainable implementation and maintenance of standardized QMS within HEIs. The management of the organization is responsible for identifying the CSFs in maintaining ISO-based QMS, especially during the post-certification period as it is more significant than during the certification period. (Wahid and Corner, 2009) have reported that human factors (including both management and employees), team collaboration, reward mechanism, continuous improvement, understanding of standards, performance evaluation and communication as the CSFs for ISO QMS maintenance. Ismyrlis and Moschidis (2015) state that human commitment, education and communication as the most critical CSFs. In addition to the above CSFs, Moturi and Mbithi (2015) have identified shared trust, responsiveness to staff and student necessities, regular review of QMS, training and sensitization for all kinds of employees, fair resolution of students' complaints and regular QMS meetings as the CSFs for better implementation and maintenance of QMS in HEIs.

**ISO standards & Sri Lanka HEIs**

Considering all 19 public universities operating in Sri Lanka, no university has obtained ISO certification for their overall QMSs. Instead, only a few departments and public institutions have certified their QMS under ISO 9001:2008 & ISO 9001:2015. On the other hand, among the 23 private sector HEIs for which the degree awarding status is granted by the Ministry of Higher Education, only less than five institutions have obtained ISO 9001:2008 and ISO 9001:2015 certification for overall university QMS. Therefore, altogether only less than 10 HEIs out of nearly 76 public and private higher educational institutions operating in Sri Lanka have certified their QMS under ISO 9001 standard, and still no institutions have certified their QMS following the recently published ISO 21001:2018 EOMS. The above approximate statistics were finalized by doing a web analysis due to the non-availability of an accepted data source to identify the ISO-certified institutions. In addition to the Sri Lanka Standard Institute (SLS), a few other international ISO certifying institutions also grant ISO certifications to Sri Lankan organizations.

## 4. CONCLUSION

The main goal of this study was to investigate the effects of adopting an ISO quality management system on Sri Lankan HEIs. The analytical review of existing literature confirms that adopting ISO 9001 QMS and ISO 21001:2018 EOMS in HEIs has proved a noteworthy growth with a potentially significant influence on quality accreditation processes.

Generally, HEIs can enjoy the common benefits of adopting ISO quality standards such as achieving consistent customer loyalty, continuous improvement of internal functions and enhanced quality of overall organizational performance. In view of the higher education sector, it has been notable that adopting ISO-based QMS would enable HEIs to the acquisition of competence through their main function of teaching, learning and research. Further, Standardized QMSs facilitate effective risk management and significant cost reduction by ensuring good coordination among all academic and administrative functions. The international recognition received from the ISO accreditation will help to build strong partnerships and linkages with different stakeholders and it would significantly contribute to attracting grants and funds, esteemed internship opportunities and strengthening local and international linkages and partnerships with professional demands.

The process management approach provided by the recently published ISO EOMS is more suitable to face the transition in higher education from in-person classroom learning methods to technology-enabled education engaging with the array of ICT and online education modalities. In addition, the shorter review interim period of ISO 21001:2018 over its accreditation is a demonstrative advantage for higher education due to the rapid changes occurring in certificate-based education and technological advancement.

Accordingly, the literature confirmed that the ISO-standardized QMS for educational organizations has established a significant favourable impact on critical elements of quality management processes in higher education. However, the institutions have to face the challenges associated with human factors, resources and physical infrastructure, documentation, management structures and communication in their journey of implementing and maintaining ISO standards. Therefore, the identification and consideration of CSFs are also essential for the successful implementation and maintenance of standardized QMS within HEIs.

## 5. RECOMMENDATIONS

In the Sri Lankan context, the implication of ISO quality management systems in HEIs is at a very lower level. Still, at least one Sri Lankan university has failed to sustain itself within the top 1000 universities in the world in terms of the globally accepted university rankings. Accordingly, adopting ISO QMS for Sri Lankan HEIs is much essential to go forward with international HEIs. This single study just provides an energetic basis for further discussions. More opportunities, therefore, exist for further studies to contribute to satisfactory ISO adoption in Sri Lankan HEIs.

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