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Implementation of Total Quality Management in Higher Education A conceptual framework

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Abstract

Purpose **–** TQM in Higher Education has demonstrated remarkable effectiveness in driving substantial improvements across various dimensions of educational institutions. There is a significant opportunity to gain valuable insight into the global competitiveness of academic institutions through a study of QAPs (Quality Assurance Practices) in Higher Education Institutions (HEIs). The research assesses the impacts of QAPs on higher education and their outcomes facilitated by the HEIs to prepare students for employability.

Design/methodology/approach **–** The study employs an exploratory research approach. QAPs from various assessment, accreditation, and ranking bodies were assessed, and variables were gathered for the study. After adopting the common-sense method, eight independent variables were identified that potentially influence the success of TQM and student employability in HEIs. The study's eight independent variables are governance leadership, student support progression, research consultancy extension, curriculum aspects, teaching, learning & evaluation, innovative practices, infrastructure learning resources, and collaboration, with two dependent variables, TQM effectiveness, and student employability, finalized.

Findings **–** The findings reveal that the QAPs of HEIs, such as Governance Leadership, Student Support Progression, Research Consultancy Extension, Curriculum Aspects, Teaching Learning Evaluation, Innovative Practices, Infrastructure Learning Resources, and Collaboration, influence TQM Effectiveness. The study also supports that student employability is an outcome of the TQM effectiveness influenced by the QAPs of HEIs, representing a paradigm of educational excellence and advancing knowledge, societal contribution, and building an employable global workforce.

Practical Implications **–** The article explores the dimensions of QAPs of higher education assessment, accreditation, and ranking bodies from India and a few global regulators. The study reveals that the HEIs are committed to upholding academic standards and ensuring the delivery of high-quality education. The HEIs often cater to a diverse student population by adapting to local regulations and policies. The study emphasizes the need for continuous assessment and improvement strategies to meet the evolving needs of students and other stakeholders globally. The research findings can help HEIs produce the intended results while meeting and exceeding the expectations of their stakeholders. It can also assist institutions to improve their reputations.

Originality/value **–** This is possibly a one-of-a-kind study that used a methodology to evaluate the QAPs of assessing, accrediting, and ranking agencies of HEIs. The findings may assist higher education institutions in maintaining their global competitiveness.

Keywords **– TQM, Higher Education, Quality Assurance, Quality Accreditation, QAP**

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1. INTRODUCTION

An individual's pursuit of quality serves as the foundation for success, and success frequently indicates the presence of quality. Quality is a multifaceted term essential for individuals, organizations, and undertakings. Al-Tarawneh and Mubaslat (2011) describe quality as excellence, efficacy (Hasan et al., 2021), superiority (Anttila & Jussila, 2017), service, or process. When prioritizing quality, it is critical to highlight it in all aspects of work. By prioritizing quality throughout, you position yourself for success. High-quality products or services are more likely to satisfy customers, provide positive feedback, and promote loyalty, increasing market share, profitability, and growth (Winn & Green, 1998; Bayraktar et al., 2008).

Quality assurance (QA) and quality enhancement (QE) are popular ideas in higher education institutions. Quality issues are essential, as evidenced by the interest of various international organizations worldwide. It is not a new concept; it has been used for ages by multiple cultures (Elassy, 2015). The "quality is conformity to standards" approach (Houston, 2007) is commonly used in public services and is based on manufacturing quality control. It is measured to ensure that a product fits the criteria. Most policymakers in higher education accepted the "Quality as Fitness for Purpose" (Juran, 2010) approach, believing that quality was primarily concerned with the product or service it provided. However, numerous scholars have questioned it.

Transparency and accountability have become increasingly vital due to globalization in higher education, establishing a quality culture that meets diverse needs globally (Smidt, 2015). Higher education quality is defined by numerous factors, including excellence, value, consistency, and matching expectations. Despite this, no single quality assurance system can address all aspects of quality; hence, it is vital to select which quality categories are examined (Harvey, 1993). Self-assessment can help an organization or institution enhance its overall quality performance by identifying areas of strength and growth (Wilger, 1997).

Some nations' accreditation experience may appear new, considering the number of countries that have developed quality assurance procedures for higher education, and many are currently establishing quality assurance plans. However, it must be evaluated from the perspective of India's existing quality regulations for higher education, many of which were inherited from the British past (Stella, 2006). NAAC, NBA, and NIRF are some of India's assessment, accreditation, and ranking bodies for HEIs, whereas QA is for the UK, MQA is for Malaysia, and KHDA is for UAE/Dubai, etc. The next part highlights the literature by discussing the principles of quality, quality management and TQM, quality evaluation, and HEI assurance.

2. BACKGROUND AND LITERATURE REVIEW

The primary goal of this chapter is to explore the various quality-related literature available in the public domain offered by several scholars to comprehend better the philosophy of TQM, which serves as the foundation for implementing the system. According to Seymour (1992), students care more about "Quality" than the size of their institution's capabilities or the research credentials of their lecturers. Quality can be defined as "satisfying the consumer's needs both now and in the future (Deming, 1986)." Juran (1988) refers to it as fitness for usage. Roberts (1993) defines this as "continually serving customers better and more economically while focusing on eliminating all waste materials." Creating policies to meet customer expectations is critical for hiring staff, allocating resources, prioritizing, and providing services. As a strategic aspect, the quality approach has introduced institutions to a new way of envisioning quality, involving the institution's senior decision-makers in improving performance.

Organizations use quality planning to guarantee that their products, services, and processes meet or exceed consumer expectations (Ali et al., 2010). This process includes defining quality objectives, establishing measures for monitoring quality, and developing strategies to accomplish them. Quality planning allows organizations to proactively address potential issues, minimize defects, reduce costs, and ultimately provide products and services that consistently meet the desired quality levels, increasing customer satisfaction and organizational success (Angelov et al., 2008).

Quality inspectors or controllers normally carry out quality control. Quality control procedures such as inspection (Broday, 2022) and testing are commonly employed in manufacturing and education to ensure standards are met. Juran's famous lines 'There is gold in the mine!' appeared in the first edition of the Quality Control Handbook, released in the 1950s. Perhaps most importantly, he created the term "fitness for use or purpose" (Houston, 2007). As a result of this principle, a product or service may meet its standards yet not serve its intended purpose. The specification may be troublesome or fail to satisfy the customer's needs (Angelov et al. 2008). In most cases, meeting specifications is a necessary quality requirement, but it is insufficient. Juran argues that excellence must be designed rather than emerging naturally.

A quality assurance system ensures that a good or service continually complies with a standard or specification (Sallis, 1995). Quality assurance requires meeting all objectives and regulations. Quality management is a collaborative activity among partners (Elassy, 2015). Quality assurance in higher education institutions aims to ensure that teaching and learning continue to meet the institution's objectives today and in the future. Green (1998) defines quality as ensuring that education and learning are appropriate for their intended purpose.

Total Quality Management (TQM) philosophy stresses work processes and people with the primary goal of increasing customer satisfaction and organizational success. It entails properly integrating work processes and allowing for continual improvement at all departmental levels to meet or surpass client expectations (Lockwood et al., 1996). The TQM philosophy fosters a quality culture in which all employees seek to delight their customers, and the organization's structure allows them to do so. TQM principles were initially employed to evaluate aircraft and satellite performance; nevertheless, these methodologies were eventually

adopted by educational and instructional institutions (Winn & Green, 1998). However, TQM must also be used in curriculum design, the everyday educational process, and the creation of pedagogical resources (Sallis, 1993). The TQM philosophy emphasizes "higher quality at lower costs" (Becket, 2008). It is a concept and method for assisting institutions in managing change and developing a strategy to deal with changing external challenges.

Following World War II, Deming and Juran established the Total Quality Management concept in Japan. Crosby, Feigenbaum, Ishikawa, and others devised approaches for increasing organizational performance. Each of these pioneers helped to build a systematic TQM technique, as shown in Table 1 (Neyestani, 2017).

Table 1: TQM Pioneers

Year	Pioneer	Quality Principle
1986	Edward Deming	14 Principles in Quality, 7 Deadly Sins, and Diseases / PDCA
1991	A. V. Feigenbaum	Quality is the customer's perception, not what a company thinks it is
1985	Kaoru Ishikawa	Statistical Approach in Quality Control and Fish-bone
1979	Philip B. Crosby	Make it right the first time (One Basic TQM)
1998	Joseph M. Juran	Cost of Quality, SPC Quality, and Juran's quality triangle (Trilogy)

Total Quality Management in Higher Education:

The new academic environment requires students and teachers to collaborate, plan, and deliver education together, which differs from the traditional practice of teachers conveying knowledge solely to pupils. Students' active engagement in classes allows them to acquire knowledge and motivates them to embrace the quality of lifelong learning (Abdus, Samad, K; Thiyagarajan, 2015). HEIs must first understand their students' requirements to create and offer outstanding higher education. To be future-ready, students require quality education, employability skills, an acceptable academic atmosphere, cutting-edge infrastructure, extra-curricular activities, etc. Higher education institutions must continuously improve their services to meet stakeholders' expectations and interests (Đonlagić & Fazlić, 2015).

Higher education's primary activities are teaching and research, so this appears to be a severe deficiency. Quality management in higher education must take into account a variety of factors. It is critical to confront and overcome these issues to increase higher education institutions' competitiveness and ensure their survival and expansion of services (Bhatia & Dash, 2010). As a result, educational institutions must examine and plan the effective implementation of Total Quality Management (TQM) to assess and enhance quality standards, allowing them to progress and excel.

Quality and accreditation in higher education:

Accreditation is essential in higher education because it promotes quality standards, accountability, and ongoing progress within educational institutions (Sharma 2014). External accrediting agencies undertake accreditation, which evaluates academic programs, faculty qualifications, infrastructure, and overall institutional performance. It enables students and families to make informed decisions about the level of education they will receive. Accreditation also allows institutions to compare themselves to established standards and best practices, encouraging a culture of self-reflection and progress (Cooper & Schindler, 2014). Furthermore, accreditation is essential for gaining a worldwide reputation and allowing credit transfers between institutions. It is a quality assurance that instills trust and confidence in employers, policymakers, and society.

Quality and accreditation are closely related ideas that promote excellence in various fields, including education, healthcare, and industry (Ziegel, Swift, Ross, & Omachonu, 1999). Quality is described as continuously producing products, services, or procedures that meet or exceed customer expectations (Lim, 1999) while following established standards. Accreditation, on the other hand, is a formal acknowledgment procedure in which external bodies review and confirm the quality and compliance of an organization, institution, or program against established standards.

Assessment, accreditation, and ranking bodies – overview:

Assessment and accreditation agencies in higher education are critical to assuring quality and standards across institutions and programs. They assess many areas of educational institutions, such as curriculum, faculty qualifications, resources, and student outcomes. The study focuses on a few agencies, including NAAC, NBA, and NIRF from India, the QAA from the United Kingdom, MQA from Malaysia, and KHDA from the United Arab Emirates.

National Assessment and Accreditation Council (NAAC), India

The National Assessment and Accreditation Council (NAAC) is an autonomous agency formed by India's University Grants Commission (UGC) to review and certify the country's higher education institutions. The NAAC accreditation procedure assesses several components of an educational institution using certain criteria (NAAC Handbook (Revised) - November 2017, pages 17-18). NAAC's technique for assessment and accreditation is fairly similar to that of international QA agencies. They include self-evaluation by the institution's IQAC (Internal Quality Assurance Cell) and an external NAAC assessment.

NAAC's assessment criteria include Curriculum Aspects, Teaching, Learning & Evaluation,

Research, Innovation & Extension, Infrastructure and Learning Resources, Student Support & Progression, and Governance & Leadership. Each criterion has a few Key Indicators (KIs). They are defined as metrics that elicit responses from institutions, such as academic flexibility, curriculum enrichment, feedback systems, teaching-learning processes, teacher profiles & quality, research publications and awards, information technology infrastructure, alumni engagement, faculty empowerment strategies, and so on.

The National Board of Accreditation (NBA), India

The National Board of Accreditation (NBA) is an autonomous entity in India that functions under the auspices of the All-India Council for Technical Education (AICTE), which is in charge of accrediting technical education programs throughout the country. The NBA was founded in 1994 to examine and certify technical education programs provided by higher education institutions. NBA's vision is to be an international standard accrediting agency by ensuring the highest level of credibility in the assurance of quality and relevance of professional education, as well as to meet the expectations of its stakeholders - corporations, academicians, educational institutions, industry, regulators, government, students, and parents (National Board of Accreditation, 2019).

The NBA's assessment criteria include curriculum and learning process, faculty traits and contributions, vision, mission, program educational objectives, infrastructure, and student quality performance. Their sub-criteria are vision and mission statements, PEOs (Program Educational Objectives) of the programs applied for accreditation, governing structure - a sample of MoM and action taken reports to be attached, faculty development policies - there must be a well-defined faculty development policy for better quality in program delivery to meet higher standards, grievance redressal mechanism - for conflict management, anti-ragging committee, sexual harassment - assessment of student learning by semester final examinations, term exams, practical/laboratory exams, internal assessment, case studies, project tasks, seminars, presentations, analysis of reports, group discussions, etc., curriculum - the process that redesigns the curriculum based on gap analysis done through program outcomes must be recorded, learning process - the criteria of learning process are the processes followed to improve the quality of teaching and learning.

The National Institutional Ranking Framework (NIRF), India

The National Institutional Ranking Framework (NIRF), a Government of India program introduced in 2015, ranks higher education institutions nationwide using predefined characteristics and criteria. The NIRF seeks to foster openness, accountability, and healthy competition among institutions while giving useful information to students, parents, and other stakeholders. This organized framework provides the approach for rating and ranking universities and institutions across India, and it was developed following thorough research by the MHRD expert group.

The ranking methodology contains specific criteria for teaching and learning resources, research and professional practice, graduation outcomes, outreach and diversity, and perception. (NIRF, 2018). The NIRF assessment criteria include teaching, learning & resources, graduation outcomes, research and professional practice, outreach and inclusivity, and peer perception.

Quality Assurance Agency for Higher Education, UK (QAA):

QAA conducts transnational education (TNE) reviews on behalf of UK universities and in the interest of UK higher education. These reviews are to ensure that the quality of education delivered by UK universities overseas in IBCs (International Branch Campuses) is safeguarded and meets the established academic quality and standards (Brown, 2004).

The review objectives on student learning experience are listed below:

- Policy and procedures for student admissions, including the responsibilities of the partner institution; student support, including arrangement for induction and access to UK-based staff; student engagement, including student representation and feedback mechanisms and IBCs, staff appointment, induction and development, availability of learning material for students, including virtual learning environment
- Information on staffing models and key roles
- Procedures and contingency plans for terminating the agreement with an IBC partner.

The Malaysian Quality Agency (MQA):

The Malaysian Quality Agency (MQA) was created in November 2007 under the Malaysian Qualifications Agency Act 2007. MQA's primary duty is to implement the Malaysian Quality Framework (MQF) as the foundation for higher education quality assurance and as a reference point for Malaysian qualification standards and criteria (Mokhtar, Rahman, Othman, and Ali, 2014).

MQA evaluates higher education providers based on the following criteria: vision, mission, educational goals and learning outcomes, curriculum design and delivery, student assessment, student selection and support services, academic staff, educational

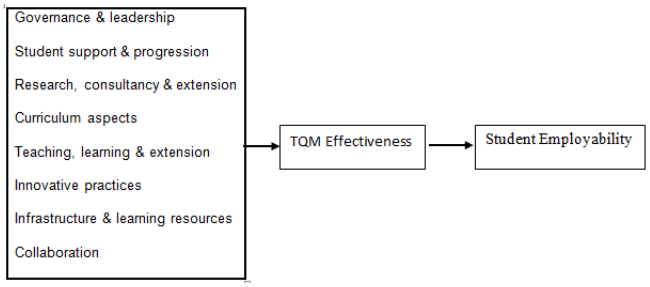
resources, program monitoring and review, leadership, governance, and administration, and continuous quality improvement.

Knowledge and Human Resource Development Authority (KHDA), UAE

The Knowledge and Human Development Authority (KHDA) is a government agency in Dubai, United Arab Emirates, in charge of the growth, direction, and quality of Dubai's private education. It regulates and accredits higher education institutions in the emirate. KHDA examines and accredits higher education institutions based on a variety of factors, including faculty qualifications, facilities, academic programs, student support services, and overall quality requirements. Institutions seeking KHDA accreditation go through a thorough examination procedure to guarantee they meet the standards (Warren H.. Fox, KHDA, 2011).

KHDA accreditation is vital for higher education institutions in Dubai since it ensures quality and conformity to specified criteria. It also improves the institution's reputation and trustworthiness, making it more appealing to prospective students and employers. KHDA-accredited institutions are known for providing high-quality education and are better positioned to recruit students from both local and foreign backgrounds. Accreditation by KHDA is a notable milestone for higher education institutions in Dubai, indicating their dedication to excellence and quality of education.

Conceptual higher education quality model:



TQM in Higher Education, specifically within the QAPs framework, has proven to be extremely effective in driving significant improvements across multiple dimensions of educational institutions, improving student learning outcomes and satisfaction, and positively impacting institutional reputation and global competitiveness. HEIs use TQM to improve educational procedures, student results, and institutional reputation. This procedure has resulted in greater recognition and rankings for their accrediting processes. Some of the QAPs are detailed below.

1. **Governance and Leadership:** It represents effective communication of vision to staff and students, fosters engagement at all levels, allocates resources for research and development activities, emphasizes academic excellence, pursues continuous improvement practices for teaching quality enhancement, and prioritizes internal quality assurance systems.
2. **Student Support and Progression:** Improvement in providing a comprehensive student prospectus, monitoring student progression, and utilization of student feedback for quality enhancement.
3. **Research, Consultancy, & Extension:** The institution should encourage faculty engagement in research and consultancy endeavors, foster a culture of continuous learning among educators, and provide essential funding for research and development.
4. **Teaching, Learning, & Evaluation:** The institution emphasizes students' well-being through adequate extra-curricular facilities and maintains a secure and conducive learning environment. It also conducts satisfaction surveys to enhance the effectiveness of teaching and learning.
5. **Innovative Practices:** The institute showcases flexibility in its academic-related activities, supports innovation in quality improvement, promotes value-based education, and applies quality management concepts across all academic-related activities.
6. **Infrastructure & Learning Resources:** The institution commits itself to providing state-of-the-art infrastructure to foster a high-quality teaching and learning environment and to have a structured procedure for tracking students' development.
7. **Curriculum Aspects:** It represents the institution's approach, including its commitment to academic flexibility, sustainability, transparency, alignment, evaluation by knowledgeable faculty, and relevance and practicality in its educational offerings.
8. **Collaborations:** The institution demonstrates industry exposure for students through internships and training programs, offers an international exchange program, and supports faculty members in expanding their industrial networks and establishing international reputations.
9. **TQM Effectiveness:** The institution's multifaceted strategies for enhancing student learning outcomes and overall excellence. These strategies include optimizing teaching methods and course content, encouraging engagement with local industries, and sharing success stories through various communication platforms and events.
10. **Student Employability:** It represents the institution's engagement with various stakeholders, and the institution's focus on academic activities to enhance employability skills underscores its commitment to preparing students industry-ready.

METHODOLOGY

The article's primary objective is to conduct a study on quality assurance practices (QAPs) of HEIs. The

study's basis is a literature review of quality, quality management, and total quality management in higher education institutions in HEIs. Further literature was reviewed on the assessment, accreditation, and ranking of India, and a few selected nations for their QAPs of HEIs are the epicenter of the study. The quality assessment and ranking practices of India, UK, Malaysia, and UAE were studied, and various literature was published in reputed journals delved into quality and TQM in higher education. The selection of countries apart from India is based on their global recognition for academic excellence (Warren H. Fox, KHDA, 2011).

From the literature review, variables that are aligned with the measurement criteria of assessment, accreditation, and ranking bodies were identified. The common-sense method dropped a few uncommon variables mainly due to their similarity. After filtration, ten dimensions were chosen examined in the final study: Governance and Leadership (GL), Student Support and Progression (SSP), Research, Consultancy, and Extension (RCE), Teaching, Learning, and Evaluation (TLE), Innovative Practices (IP), Infrastructure and Learning Resources (ILR), Curriculum Aspects (CA), Collaborations (COLB), TQM Effectiveness (EFF) and Student Employability (SO).

FINDINGS

A comparative study of QAPs in higher education is an excellent opportunity to obtain useful information into academic institutions' global expansion. The study highlights the necessity of context-specific techniques to boost academic achievement, such as international collaboration, cross-cultural learning experiences, research and citations, and so on, while retaining educational quality.

The following factors derived from the literature review are tabled below:

Factor	Factor Labels
1	Governance Leadership
2	Student Support Progression
3	Research Consultancy Extension
4	Curriculum Aspects
5	Teaching Learning Evaluation
6	Innovative Practices
7	Infrastructure Learning Resources
8	Collaboration
9	TQM Effectiveness
10	Student Employability

The eight criteria, GL, SSP, RCE, CA, TLE, IP, ILR, and COLB, influence the effectiveness of TQM (EFF) implementation. The quality of education excelled through the effectiveness of TQM practices expected to deliver desired outcomes for the stakeholders through student employability (SO) by building the students' industry-ready through outcomes such as graduate skills, abilities, competencies, and employability (Dwaikat, 2020).

This comprehensive study delves into the distinctive characteristics of HEIs in India and a few selected nations across many dimensions, highlighting the unique strategies, approaches, and priorities of their higher education system. A summary of observations is detailed below;

1. The study emphasizes the importance of higher education institutions' governance and leadership excellence. The institutions are known for their strong leadership, strategic planning, and open decision-making processes. This leadership style aligns with the overarching goal of building a dynamic and progressive educational ecosystem that promotes innovation, inclusivity, and long-term growth. Strong governance principles improve institutions' ability to meet academic and strategic goals while being accountable and transparent. According to the studies, leadership has an important role in developing a vision for quality and boosting institutional effectiveness through TQM implementation (Sayeda, Rajendran, & Lokachari, 2010).
2. The study confirms the provision of a comprehensive student prospectus, monitoring of student progression, and utilization of student feedback for quality enhancement (Manchanda, 2020).
3. The stakeholders acknowledge their commitment to embracing modern pedagogical methods, interdisciplinary collaboration, and cutting-edge research. This process underscores the institutions' role as drivers of innovation, preparing students to navigate a rapidly changing world and contribute to advancements in various disciplines (Osborn, Alkezweeny, & Kecskes, 2015). However, it also indicates the need for attention in Research Consultancy & Extension and Citations.
4. The study also indicates that HEIs need to give prominence to Curriculum Aspects. This recognition highlights the institutions' proactive curriculum design, development, and delivery approach. The alignment of curricula with industry demands, emerging trends, and interdisciplinary perspectives reflects their commitment to providing relevant and future-focused education (Hasan, Mallik, & Tsou, 2021).
5. The research reveals that HEIs must perform well concerning Teaching, Learning,

& Evaluation. The HEIs commend faculty commitment to high-quality pedagogy, learner-centered approaches, and rigorous evaluation practices (Brown, 2004). This perception reinforces the institutions' dedication to cultivating effective learning environments that equip students with the skills, knowledge, and critical thinking abilities required to excel in diverse fields.

6. The study reveals the institutions' dedication to maintaining stringent quality standards and fostering an environment conducive to exceptional academic experiences. This recognition echoes the institutions' commitment to continual improvement, effective assessment mechanisms, and a focus on providing holistic educational outcomes. The study reveals that HEIs acknowledge the ability to conduct cutting-edge research (NAAC, 2020), provide valuable consultancy services for innovation, and extend their expertise to benefit industries and communities.
7. The study indicates that HEIs must provide suitable Infrastructure & Learning Resources (Sujit Kumar Garai & Abhijit Chakraborty, 2016). This recognition signifies the institutions' dedication to providing state-of-the-art facilities, advanced technologies, and supportive environments that enhance the learning experience and facilitate academic achievement.
8. The study reveals that Collaboration is a significant strength of HEIs (Avissar, Alkaher, & Gan, 2018). Stakeholders emphasize partnerships within and outside their institutions, fostering an environment where interdisciplinary cooperation and knowledge exchange thrive. This approach speaks to their commitment to creating a broader educational ecosystem beyond their campuses.
9. All dimensions of QAPs are significantly associated with TQM effectiveness, suggesting that this model can be applied to improve the effectiveness of TQM in the higher education sector in India.
10. The stakeholders perceive that the HEIs must emphasize equipping graduates with the necessary skills and competencies to transition seamlessly into the professional world. This outcome highlights a comprehensive approach to education that aligns with industry needs (Hughey, 2000) and ensures that graduates are prepared to contribute meaningfully to their chosen fields.

The HEIs are models of excellence in Research Consultancy & Extension, Teaching, Learning & Evaluation, and Curriculum Aspects, with a strong emphasis on knowledge generation, transformative learning experience hubs, and creative curriculum design incubators. Their diverse supremacy in Governance and Leadership, Innovative Practices, Infrastructure and Learning Resources, and Collaboration exemplifies educational greatness, contributing to the advancement of knowledge, society, and the global workforce. The findings may not necessarily support a causal relationship between QAPs, TQM effectiveness, and student employability. However, these findings suggest that there is a relationship.

DISCUSSION

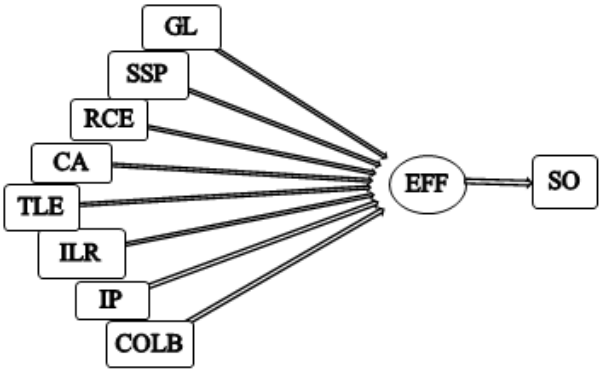
QAPs encourage a culture of quality and continual development in HEIs (Dwaikat, NY, 2021). This culture is similar to the TQM principles, which encourage continual improvement in all aspects of institutional performance (Ahire et al., 1996). QAPs use data analysis and feedback mechanisms to motivate improvement efforts (Reichert et al., 2009). Similarly, TQM stresses the use of data in decision-making processes to identify areas for improvement and monitor performance (Oakland, 2003). QAPs and TQM emphasize the necessity of including stakeholders in quality improvement activities (Yang 2015). The active participation of stakeholders, such as students, staff, and other relevant stakeholders improve TQM effectiveness by encouraging collaboration and commitment to quality improvement activities (Jung et al., 2016). QAPs and TQM encourage process optimization to reduce waste and increase productivity (Dale et al., 1998). Institutions can better meet stakeholder expectations by simplifying operations and increasing efficiency (Deming, 1986).

QAPs ensure that educational programs are consistent with industry standards and market demands (Gollapalli and Rao, 2013). This alignment increases student employability by providing graduates with the skills and knowledge that industries require (Harvey et al., 1997). QAPs allow for the regular examination and updating of curricula to integrate evolving trends and industry practices (Rao et al., 2018). Relevant and up-to-date curricula improve student employability by preparing graduates for the demands of the job market (Klein-Collins & Werquin, 2013). QAPs advocate for incorporating experiential learning opportunities into the curriculum, such as internships and industrial projects (Boud & Solomon, 2001). These chances provide students with practical experience and abilities that employers desire, increasing their employability (Smith et al., 2009).

In addition to technical competencies, QAPs stress the development of soft skills such as communication and teamwork (Harvey et al. 1997). Strong soft skills improve student employability by allowing graduates to effectively cooperate, communicate, and adapt to a variety of job situations (Robles, 2012). QAPs promote institutions to collaborate with employers and industry stakeholders (Priya 2020). These collaborations foster internships, mentorship, and recruitment opportunities, giving students better access to job

chances and industry insights (Brown & Hesketh, 2004).

The Higher Education Quality Model:



GL	Governance & leadership
SSP	Student support and progression
RCE	Research consultancy & extension
CA.	Curriculum Aspects
TLE	Teaching, learning, and extension
ILR	Infrastructure and learning resources
IP.	Innovative practices
COLB	Collaboration
EFF	TQM Effectiveness
SO	Student Employability

Figure 1: The Higher Education Quality Model:

The Higher Education Quality Model is a framework for evaluating and improving the quality of higher education institutions and programs. This model offers an organized approach to evaluating several aspects of quality in higher education. It provides a framework for institutions to examine their strengths and shortcomings along these dimensions and find possibilities for improvement. Higher education institutions can better address the changing demands of students, industry, and society by implementing a systematic approach to quality improvement. In addition, the approach can help policymakers and accrediting agencies promote quality and excellence in higher education.

Total Quality Management (TQM) and Quality Assurance Processes (QAPs) are approaches for increasing quality in businesses, particularly those in higher education. The deployment and integration of QAPs can improve TQM effectiveness by aligning their goals with those of local and international assessment, accreditation, and ranking agencies. Overall, the importance of Total Quality Management in higher education institutions can be considerably increased by thoughtfully integrating and aligning Quality Assurance Practices. When used together, TQM and QAPs can help institutions accomplish their quality goals, increase organizational performance, and better serve their students and stakeholders.

The effectiveness of TQM in higher education institutions can positively impact student employability by ensuring curriculum alignment with industry needs, improving the quality of teaching and learning experiences, involving employers in curriculum design and feedback processes, providing work-integrated learning opportunities, and providing comprehensive career services and support. Prioritizing TQM principles allows institutions to better educate their graduates for success in the competitive labor market while also contributing to their long-term career development and progression.

CONCLUSION

Implementing quality assurance practices (QAPs) in Indian higher education institutions has various advantages, including improved educational standards, increased institutional effectiveness, and better student outcomes. Some advantages include higher academic standards, a better learning experience, increased employability, a continuous improvement culture, accountability and transparency, global recognition, quality workforce development, and socioeconomic development. Overall, applying quality assurance techniques in Indian higher education institutions from a TQM viewpoint helps to continuously improve educational quality, institutional excellence, and societal well-being.

Quality assurance practices (QAPs) in higher education institutions have evolved to handle a variety of difficulties and assure continual educational quality improvement. The study covers a variety of QAPs for Higher Education Institutions (HEIs), including governance & leadership, innovative practices, infrastructure & learning resources, collaboration, research consultancy & extension, teaching, learning, & evaluation, and curriculum aspects that contribute to TQM effectiveness and student employability. Some HEIs may have fully embraced TQM principles and integrated them into their organizational culture, whereas others may still be in the early stages of implementation. This study investigated QAP perceptions and HEI efficacy across several

dimensions, giving insight on their different strengths and contributions to the educational landscape, particularly in terms of preparing industry-ready students for employment.

Conflict Of Interest: None

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