

Quality Management Studies in Higher Education: A Bibliometric Analysis

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Abstract

Higher education institutions are confronted with a range of challenges including expanding their systems, catering to the needs of new and diverse stakeholders, keeping up with evolving knowledge, and identifying alternative financial resources to replace public funding. The primary objective of this article is to provide guidance to researchers who are new to quality management research by helping them create a theoretical framework and directing them to relevant journals and authors. To achieve this goal, the study employs the Scopus database to identify the areas with the highest research output in quality management, the countries and languages that produce the most research in this field, the year when research on quality management originated, the journals that publish the most research, and the most significant authors with publications on quality management.

Introduction

Quality Management first gained attention as a topic relevant to businesses and industries but eventually became a concern that affected all aspects of society, particularly public services (Wilkinson et al., 1998). This concern sparked a contentious discussion about the most effective approach to achieving quality management in public services, as well as the potential consequences of utilizing quality management frameworks that were originally developed for business and manufacturing in the context of public services (Ahmed and Idris, 2020). In higher education, as in many institution systems, questions of quality management have come into sharper focus as continuing resource restrictions force a reassessment of existing priorities and practices (Aboudahr, 2021).

Much of the literature related to higher education (HE) appears to avoid using the term "management." Therefore, when discussing quality management (QM) in public services, alternative terminology is often used. Interestingly, in HE, QM is typically referred to as quality assurance, quality control, or ISO (International Organization for Standardization) which is somewhat limiting in terms of fully encompassing the scope of QM. This is peculiar for QM research, which usually involves a broader range of components beyond just assurance. The study of HE is primarily based on sociology or educational science, with less emphasis on management.

According to Sánchez-Franco et al (2022), higher Education stands apart from other industries in numerous aspects, and it presents considerable difficulties in integrating Quality Management (QM) that account for its distinctive characteristics. Examining existing research on Quality Management (QM) in Higher Education can be highly beneficial in assessing the advancements, challenges faced, and potential avenues for future research. While some scholars have conducted literature reviews, none have concentrated solely on QM in Higher Education. Thus, to address this gap, this study conducts a comprehensive bibliometric analysis of QM-related publications, providing solutions to these inquiries. The objective of this paper is to examine whether there is a trend toward integration in the literature on QM in HE. To achieve this, we conduct a literature review.

The Concept of Quality Management

Numerous empirical investigations have been conducted with the aim of pinpointing the essential characteristics of quality management, with the goal of establishing its effectiveness as a methodology and making contributions to a comprehensive theory of quality management (Saraph et al., 1989; Flynn et al., 1994; Anderson et al., 1994; Badri et al., 1995; Ahire et al., 1996; Black and Porter, 1996; Grandzol and Gershon, 1998). Other studies have centered on specific elements, such as the role of effective leaders (as discussed by Crosby, 1984; Deming, 1982; Ishikawa, 1985; Juran, 1988; Feigenbaum, 1993) in their respective works, as well as established frameworks for evaluation like the European Quality Award, Malcolm Baldrige National Quality Award, and The Deming Award.

Several scholars have defined the concept of QM, including (Crosby, 1984; Ishikawa, 1985; Deming, 1986; Grocock, 1986; Goetsch and Davis, 1997; Juran, 1999). These experts' works serve as a basis for explaining the theory of QM. According to Crosby (1984), meeting the quality requirements of one's own organization enhances quality and eliminates difficulties simultaneously. Ishikawa (1985) recognizes multiple aspects of quality, such as product, work, service, information, process, division, people, system, company, and objectives quality (p.45). In contrast, Feigenbaum (1983) defines product or service quality as providing a product or service that meets customers' expectations. Deming (1986) characterizes quality as surpassing customer expectations. Juran (1999) defines quality as being appropriate for use, which can only be assessed by having a comprehensive understanding of specific customers and their needs.

In recent years, there has been growing support among researchers and professionals for the implementation of QM in the services industry, with only minor adjustments being made in comparison to its application in the manufacturing sector (Permana et al., 2021; Saihi et al., 2023; Sony et al., 2021). Unlike prior literature reviews that concentrated on individual dimensions of quality management, this research makes a unique and comprehensive contribution by conducting a contemporary analysis to gain a deeper understanding of the quality management landscape in higher education research. The primary objective of this study was to address the following research inquiry:

- 1: Which countries contribute significantly to the study of quality management in higher education?
- 2: Who are the most prolific authors on quality management in higher education?
- 3: What are the most influential publications and years on quality management in higher education?
- 4: What is the main language of scientific research on quality management in higher education?

Materials and Methods

Bibliometric analysis refers to a numerical approach used to examine and evaluate previously published materials. This methodology involves examining and analysing previously published works using a quantitative manner (Ellegaard & Wallin, 2015) and can be used by researchers to assess academic studies in a given field or topic area. Additionally, this procedure includes a quantitative and objective assessment of secondary data gathered from online databases like Scopus and Web of Science (Verma & Gustafsson, 2020). Therefore, this analysis can improve the review's dependability and quality (Dalpé, 2002) by implementing a systematic, open, and replicable review process (Fahimnia et al., 2015; Linnenluecke et al., 2020; Klarin, 2019).

This study made use of the Scopus online database, which contains research papers from all academic fields. Because Scopus provides statistics on output, dissemination, collaboration, and effect of scientific research, bibliometric analysis is made possible (De Bakker et al., 2005). Comparing this form of study to conventional literature reviews, it represents a methodological novelty (De Bakker et al., 2005). Consequently, this database may offer a thorough overview of the output of scientific research around the globe.

Unit of Analysis

The Scopus database analysis focuses on studies in quality management (bibliometric analysis took place in 2023). This study examines all of the relevant Scopus documents to do this. The final sample consists of 56 papers, including letters, reviews, editorial pieces, book chapters, meeting abstracts, articles, proceedings, and reviews of books. These research outputs are referred to in this article as documents rather than articles.

The search query TITLE ("quality management in higher education" or "QM in higher education") has been performed in the Scopus database to search for relevant publications in any language. As titles serve as the first thing that readers see (Zakaria et al., 2021), the study uses a title-only search strategy to ensure that the found publications are related to quality management in higher education as the key topic and to prevent a high publication drop-out rate (Kücher & Feldbauer-Durstmüller, 2019). Figure 1 shows our search strategy. The search retrieved an initial sample of 56 publications.

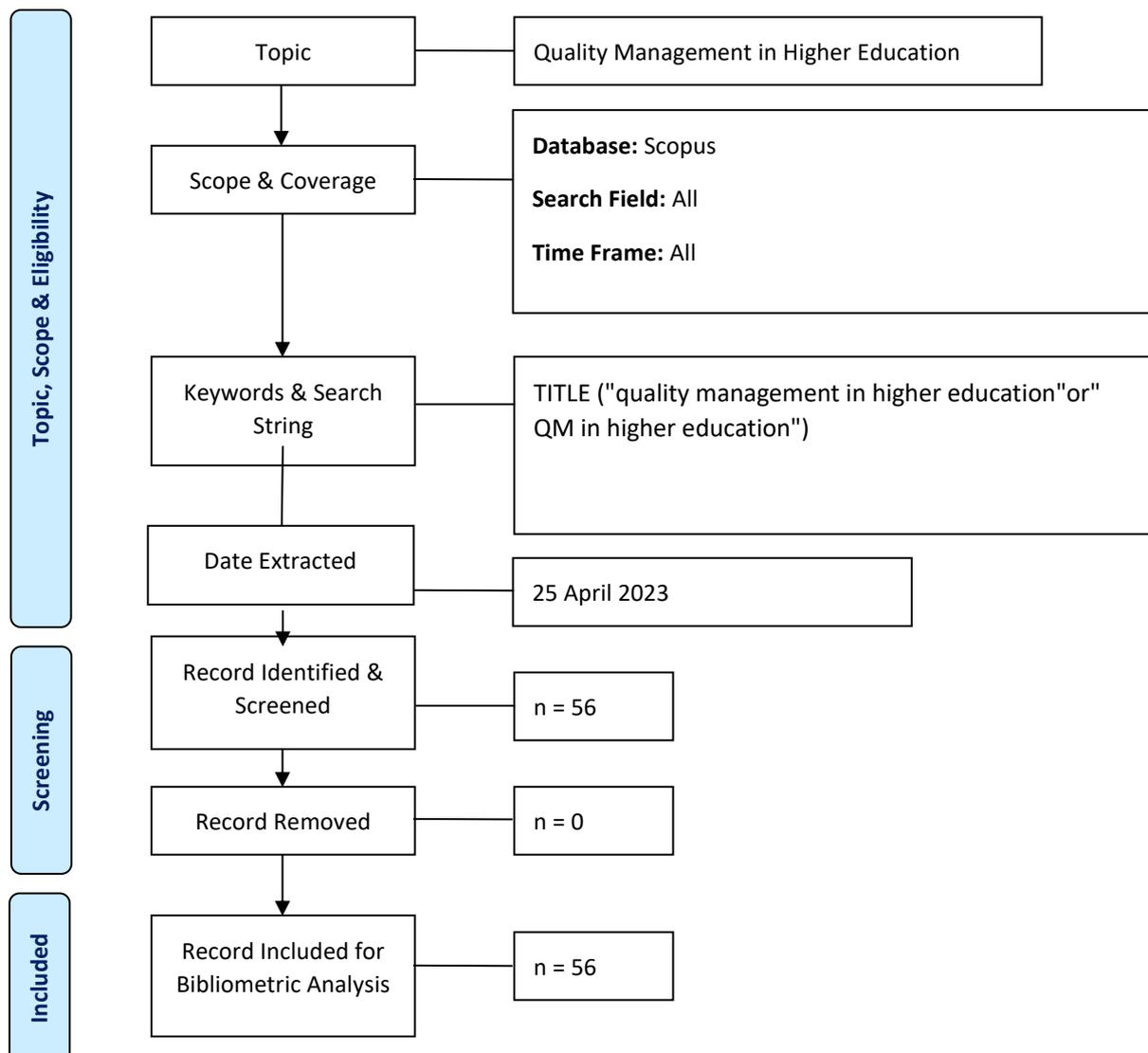


Figure 1: Flow diagram of the Unit of analysis.

Data Analysis

In order to describe the contributing nations (RQ1), the trends in publication (RQ2), the publications (RQ3), and the keywords (RQ4) of research on quality management in higher education, the study performed performance analysis in bibliometric studies (Donthu et al., 2021). Microsoft Excel was used to construct the frequency and percentage of each publication as well as the relevant graphs.

Results

The research that was conducted to determine the status of publications about quality management in higher education in the Scopus database is presented in this part. The research that was conducted to determine the status of publications about quality management in higher education in the Scopus database is also presented in this part.

Language

Even though the majority of journals indexed in the Scopus database are published in English, some are also available in other languages including Spanish and Portuguese. Using information acquired from Scopus, Table 1 displays the number of quality management

publications by language. English is used the most, as would be expected (54 documents). Spanish (1 document) and Portuguese (1 document) are the second-most frequently used languages. Because the major journals are published in English, which is the language that is required of all researchers in the contemporary international academic community, this pattern is in line with expectations.

Table 1

Languages used in research on Quality management in higher education

Language	Total Publications (TP)*	Percentage (%)
English	54	96.34
Portuguese	1	1.79
Spanish	1	1.79
Total	56	100.00

Research Area

The quantity of documents released in various knowledge areas is shown in Table 2. Thirty-six (36) papers in social sciences, twenty (20) in public business, management, and accounting, ten in decision sciences, and sixteen (16) in other topics are all included in the Scopus database. This outcome suggests that quality management is a subject that social scientists should pay close attention to.

Table 2

Areas of knowledge within which authors have published research on Quality management in higher education

Ranking	Research Area	Publications
	Social Sciences	36 64.29%
	Business, Management, and Accounting	20 35.71%
	Decision Sciences	10 17.86%
	Engineering	8 14.29%
	Mathematics	4 7.14%
	Computer Science	3 5.36%
	Psychology	2 3.57%
	Arts and Humanities	1 1.79%
	Biochemistry, Genetics and Molecular Biology	1 1.79%
	Earth and Planetary Sciences	1 1.79%
	Medicine	1 1.79%

Year of Publication

A 1991 article about quality management in higher education was found when the term "quality management in higher education" was searched for in Scopus. However, a careful examination of this document reveals that it does not specifically discuss quality management but rather presents total quality management and its implementation in general from both scientific and social viewpoints. According to Scopus, the definition of quality management in higher education as it is used today first occurs in a journal in 1991. However, before 2010, there were very few documents published annually. According to the data, there has been a

yearly increase in interest in this field of study. With the exception of the first two years, which appear to have been a rather stable period, the number of publications has increased yearly. The number of publications from 2018 to 2022 show a rise from 4 to 9 which is more than 200% increase in number.

Table 3

A number of quality management in higher education were published between 1991 and 2023.

Ranking	Year	N. publications	%
1	2022	9	16.07%
2	2020	5	8.93%
3	2019	3	5.36%
4	2018	4	7.14%
5	2017	2	3.57%
6	2016	1	1.79%
7	2015	1	1.79%
8	2014	1	1.79%
9	2013	3	5.36%
10	2012	4	7.14%
11	2011	2	3.57%
12	2010	6	10.71%
13	2007	1	1.79%
14	2004	1	1.79%
15	2003	2	3.57%
16	1999	1	1.79%
17	1997	2	3.57%
18	1995	2	3.57%
19	1993	4	7.14%
20	1991	2	3.57%

Countries

There are 14 publications on quality management in higher education in the UK, as shown in Table 4. Second place goes to India with 7 publications. Wales, Scotland, and Northern Ireland are included in the UK's publication total along with Germany, which has six publications; this increases the overall number of documents released. Due to their fewer than five publications and consequent lack of relevance to the study, the remaining nations in the analysis are not all included in the study.

Table 4

Countries where quality management in higher education research has been published

Ranking	Country	N. publications	%
1	United Kingdom	14	25.00
2	India	7	12.50
3	Germany	6	10.71

Discussion

Quality management in higher education refers to a set of policies, procedures, and practices that are designed to ensure that the education provided by an institution meets or

exceeds certain standards of excellence. This includes a focus on academic rigor, student outcomes, faculty qualifications and development, infrastructure and resources, and stakeholder engagement. This study focuses on 56 publications extracted from the Scopus database on quality management in higher education. Note that the first Scopus study on quality management in higher education was published in 1991 and gradually increased until recently which resulted in academic communities noticing the surge in bullying awareness and research since 2010. Regarding countries with publications on quality management in higher education The United Kingdom ranked the highest with 14 publications (25.0%) followed by India (12.50%) and Germany (10.71%). Finally, quality management's top keywords are "quality assurance," "quality control", "total quality management", "continuous improvement", "quality improvement", "quality enhancement", and "quality services". This shows that in higher education, quality management typically involves a range of activities such as establishing goals and objectives, implementing processes to monitor and assess performance, making improvements based on feedback and data, and ensuring compliance with regulatory and accreditation requirements.

Conclusions

The goal of quality management in higher education is to provide students with an exceptional learning experience that prepares them for their chosen careers and contributes to their personal growth and development. It also aims to promote the reputation and competitiveness of the institution, as well as its ability to attract and retain students and faculty.

In order to identify the fields in which researchers are researching quality management, the language in which such research is published, the trend in the number of publications over time, the most pertinent journals for a literature review, and the most prolific, this article presents a bibliometric analysis of quality management in higher education research. This research provides advice on which journals to consult and which writers are the most eminent to individuals who are joining the subject of quality management. The findings of this paper map the trend and contribute to the academic discourse on the collective knowledge of quality management by examining the most productive authors, sources, and documents. In addition, the results show how knowledge is evolving over time based on the use of keywords that can serve as a foundation for future research. Although future studies should include articles that do not belong to Scopus and, as a result, have no impact factor, this study reveals some conclusions that can help researchers in the field of quality management in higher education. Even if the scientific community does not regard these articles as being relevant due to the lack of impact factor, they would still add more information about quality management in higher education to the data used in the current study. Additionally, future bibliometric studies might limit the bibliometric analysis by focusing only on the Scopus articles that address quality management in higher education and excluding any other type of document, such as reviews, proceedings, book reviews, and so forth.

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