

A bibliometric analysis of total quality management literature in tourism for the last 19 years

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Abstract

The main objectives of Total Quality Management (TQM), which first emerged in 1950 in Japan with the contributions of Japanese pioneers of quality philosophy such as Deming and Juran, are expressed as continuous quality improvement, training and customer satisfaction in a business. The essence of the philosophy of TQM is to ensure final customer satisfaction at every stage and fulfill customer needs accordingly. As a system that guarantees the targeted quality in an enterprise, TQM continues to develop in the production sector as well as the service sector. The tourism sector, which is a labor-intensive industry, is being evaluated among sectors that are most affected by intense competition between businesses and countries. Therefore, TQM is an extremely important factor in terms of the competitiveness of destinations and tourism businesses in the global market. Accordingly, the aim of this study was to reveal the change and development process within the last 19 years of studies dealing with the concepts of "TQM and Tourism" together in detail in TQM literature. Therefore, a bibliometric profile of the strong relationship between TQM and Tourism was established with the CiteSpace analysis method by using the variables deployed in previous studies, the methods used in the analyzes, and the obtained findings.

Keywords: Total Quality Management, Tourism, Bibliometric analysis

1. Introduction

TQM (Zakki, 2021:34), which first emerged in the United States of America and subsequently started to be implemented in a few Japanese companies, has become an extremely important concept for businesses with the increase of competition in the global market (Martinez-Lorente, 1998:2). This is because TQM is a management approach that helps businesses cope with global competition (Ayodeji et al., 2021:22). TQM includes a set of guiding principles and practices that focus not only on quality management but also on the quality of management (Alghamdi, 2018:186). In this context, TQM can be expressed as a management philosophy that focuses on countering the needs and expectations that are necessary to ensure continuous improvement in the service and product quality of businesses, increase business performance and ensure customer satisfaction (Osoko & Muda, 2021:12).

TQM is a 'management philosophy that consists of views and ideas aimed at improving the quality of products or services' (Neyestani, 2017:1). The main purpose of this

philosophy is to ensure continuous quality improvement, training and customer satisfaction (Ayodeji et al., 2021:22). TQM emerged initially in 1950 in Japan with the contributions of Japanese pioneers of quality philosophy such as Deming and Juran (Neyestani, 2017:1). While Deming argued that it is possible to increase productivity by improving quality and as a result, increase the competitiveness of businesses (Gupta, et al., 2005:390), Juran put more emphasis on the managerial aspect of quality (Neyestani, 2017:7). Juran (Deepa, 2015:26), recognized as 'the pioneer of modern quality management' and known for his 'Quality Control Handbook' first published in 1951 (Deepa, 2015:26), defined TQM within the framework of three management processes called "quality trilogy" consisting of the "quality planning", "quality control" and "quality improvement" stages (Taylor & Pearson:1994, 26). Subsequently, Crosby, Feigenbaum (1961) and Ishikawa (1990) developed this strong management philosophy to improve and develop the quality of work in organizations (Livia, 202; Neyestani, 2017).

In his book 'Total Quality Control (1961)' Feigenbaum describes TQM as "an effective system for integrating the

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quality-improvement, quality-maintenance, and quality-improvement efforts of various groups in a business, production and service at the most economical level and ensuring full customer satisfaction” (Martinez-Lorente, 1998:7-8). This definition has made quality a strategic tool in business life (Livia, 2021:105).

According to Ishikawa (1990), TQM stood for “a management system consisting of developing, designing, producing, marketing and serving products and services with optimum cost efficiency and practicality that customers would purchase with satisfaction” (Martinez-Lorente, 1998:7-8). All departments of a company had to work together in cooperation to achieve these goals.

TQM is a system that guarantees the targeted quality in an enterprise. Therefore, quality is the result of a TQM system defined for the company and specific tasks and activities within the company (Holjevac, 1996, 67). TQM encompasses a process related to the integration of all efforts in the organization for quality improvement, quality development and quality maintenance to generate full customer satisfaction at all economic levels (Talib, 2014:3). The aim is to maximize the satisfaction of the end customer at each stage, at the least possible cost and accordingly identify and fulfill the customer's need (Poudel & Shrestha, 2017:206).

The TQM approach continues its development in the service sector as well as in the production sector. Service quality and customer satisfaction are the most important elements in gaining a competitive advantage in the competitive market (Süer, 2021:711) of the tourism sector, which is a labor-intensive sector (Kozak, 2016:230). Therefore, the tourism sector has not excluded itself from quality improvement activities. TQM in tourism enterprises is based on production and service within the framework of customer needs and wishes. Therefore, increasing the quality to a certain level in the tourism sector is directly related to the continuous improvement of service production and the quality of service providers (Uğurlu et al., 2015:310-316).

The aim of this study is to reveal in detail the change and development process of the studies that have dealt with the concepts of "TQM and Tourism" together in the TQM literature during the last 19 years. Variables used in the studies on the relationship between TQM and tourism, the methods used in the analyzes and the findings obtained have been determined through the Cite Space analysis method to establish a bibliometric profile of the strong relationship between these two concepts. The study is extremely important in terms of being a roadmap for future studies on the relationship between the concepts of "TQM and tourism".

2. Conceptual framework

Nowadays, one of the sectors most affected by the intense competition between businesses and countries is the tourism sector (Gürbüz, 2000:45). Businesses in this field cannot afford to base their competitive advantage on cost alone. Therefore, quality management is a key element for

the competitiveness of tourist destinations and tourism businesses in the global market (Belu, 2017:36). Attention to service quality is accepted as one of the most important factors for customers that determine the success of tourism enterprises (Masrurul, 2019:136). Therefore, maintaining high-quality in tourism businesses and activities is extremely important in terms of both establishing customer satisfaction and being a permanent player in the market (Belu, 2017:36).

The development of TQM in the tourism sector, especially in the accommodation sector, dates back to the 1980s, when quality assurance started to spread (Breiter et al., 1995:13). Specifically, the implementation of quality management in the hospitality industry started in 1982, when the American hospitality industry implemented quality control (QA) systems and achieved excellent results (Hussain & Khan, 2020:3). Kapiki (2012:54) defines quality in the hospitality industry as “the consistent delivery of products and services according to expected standards”.

There are three basic components for the successful implementation of TQM in the tourism sector (Breiter et al., 1995:13):

- Quality management needs to be systematic. More precisely, all departments operating in tourism enterprises need to be involved in quality studies and be supportive.
- The main purpose of quality management is to ensure customer satisfaction.
- The third and last essential component of quality management is conviction in the need for continuous improvement.

The TQM approach is one of the most important ways to achieve excellence in tourism and accommodation services (Abuamoud & Al-bour, 2020:36). TQM in the tourism sector can be expressed as a participatory process that enables personnel at all levels to work in groups to determine customer service expectations and the best way to fulfill these expectations (Kapiki, 2012:53,54). TQM is comprised of a total quality assurance concept that takes the combination of all decisions and activities that involve manufacturers, suppliers, distributors and customers to achieve satisfactory quality in accommodation and tourism services into consideration (Pyo, 2014:5). In this context, TQM is of great importance for the tourism sector as a result of changes in consumer behavior and current holiday preferences and the resulting increase in competitiveness among new tourism destinations (Camison, 1996:191).

3. Method

The aim of this study is to reveal in detail the change and development process of the studies that have dealt with the concepts of "TQM and Tourism" together in the TQM literature for the last 19 years. The bibliometric analysis method was used to analyze the data in this study. The bibliometric analysis method was used to set a roadmap for researchers by revealing the performances of authors, journals and

countries and the collaboration models between them with a systematic review (Nebioğlu & Eren, 2019:324). Bibliometric methods use bibliographic data in publication databases to create structural images of scientific fields (Zupic & Cater, 2015:2).

The Web of Science Core Collection database was used as a data collection tool in this study. The Web of Science Core Collection includes more than 21,100 peer-reviewed and high-quality academic journals (including open access journals) published worldwide. In addition, it is a database that has more than 250 disciplines in science, social sciences, arts & humanities, and provides accessibility to conference papers and book data (Web Of Science Group, 09.11.2021). The SCI, SSCI, AHCI scientific citation indexes are the most important data sources used in bibliometric research, and these indexes can be accessed through the Web of Science Core Collection database (Nebioğlu, 2019:75). The data of this study were obtained from the studies published in the journals in the Web of Science database, and the data for 1992-2021 were taken into account.

The words "Tourism" and "TQM" were searched together in the search section of the relevant database. A total of 194 resources examining the relationship between these two concepts were accessed, and all the accessed resources were found suitable for evaluation and included in the analysis. The Citespace program, a Java application, was used to analyze the obtained data and reveal the relationship between "Tourism" and "TQM" (Nebioğlu, 2020:5). Citespace is a Java application used to visualize and analyze emerging trends and changes in scientific literature (Kurutkan & Orhan, 2018:6). Citespace analysis program is a software program with online accessibility that is known to be used in many studies that try to explain the trends in scientific publications (Al et al., 2010). The analysis parameters of the study were established according to the distribution of publications by years, institutions, authors, country collaborations and keywords.

4. Results

The distribution of the publications in the national and TQM literature in the field of "TQM" and "Tourism" by years was examined in the first stage of the findings obtained as a result of the analysis. After the 1990s, the intense competition environment that incurred in production with the impact of the increase in globalization made it necessary to raise the quality management standards in the enterprises to the highest level when evaluated in terms of consumers. Therefore, maximizing quality was mandated in the tourism sector like in all other sectors. In line with all these factors, studies in the field of 'TQM' and 'Tourism' have started to demonstrate an increasing trend. This trend can also be observed in the analysis findings given above (Küçükaltan & Özder, 2017:142).

Table 1 shows the distribution of publications according to years. It is evident that the studies on the relationship

between 'TQM' and 'Tourism' have been handled during 6 different periods and the number of studies on the subject has increased from the past to the present. Accordingly, an increase in the number of publications on 'TQM' and 'Tourism' was witnessed after 2007. An examination of the results of the analysis indicates that there has been a great increase in the studies on the subject, especially during 2017-2021. As a result, it can be stated that the studies on the subject demonstrate an increasing trend at a level that parallels the developments in the field.

Table 1. Distribution of publications by years

Years	Frequency (n)	Percent (%)
1992-1996	1	0,5
1997-2001	6	3,1
2002-2006	9	4,6
2007-2011	23	11,9
2012-2016	49	25,3
2017-2021	106	54,6
Total	194	100

Table 2 contains data on the distribution of publications on 'TQM' and 'Tourism' by institutions. The findings show that the most publications on 'TQM' and 'Tourism' were made by 'Harvard University' (n=32) in 1998. One of the main reasons why TQM is considered an outstanding research topic in the field of education in Harvard University are the experiments on quality management carried out by Eltan Mayo, who made a name for himself in this area among his colleagues in Harvard University during 1927-1932.

Table 2. Number of publications and publication years of institutions contributing to the literature

Institutions	Number of publications	Years
Harvard University	32	1998
Columbia University	27	1999
CtrDis Control & Prevent	25	1999
Oklohoma University	19	1998
Tel Aviv University	17	1999
Stanford University	17	1997
Texas University	16	2000
NYU	15	2002
Georgetown University	14	1999

Accordingly, the historical development process of TQM is supported by the fact that Harvard University ranks first in the findings for the distribution of publications by institutions (Sallis, 2009:6). An examination of the distribution of other universities reveals that the least number of publications on the subject have been published by Georgetown University (n=14).

Figure 1 shows the findings of the institutions contributing to the literature. Each node in the network represents

an institution. The connections, on the other hand, refer to the relationships between these institutions. A network consisting of 325 nodes and 232 connections was established in the analysis. Its density was determined as 0.044. Accordingly, it is concluded that the network is close to homogeneous and sufficiently clustered. The values of the top 9 institutions in this network are shown in detail in Table 2.

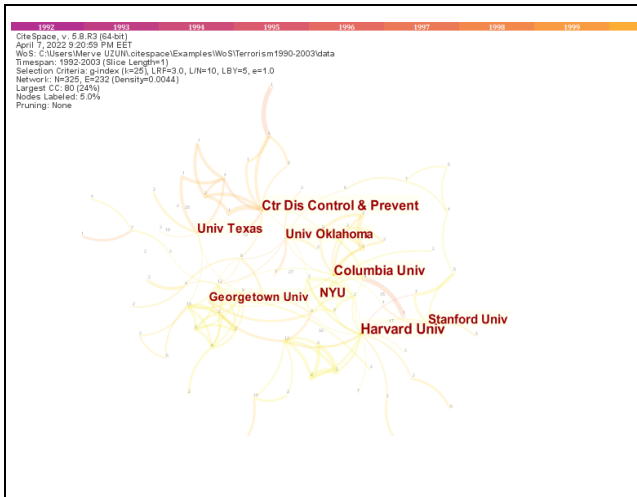


Figure 1. Distribution of publications by institutions

Table 3 provides information on the distribution of publications according to the authors who contributed to the literature. Accordingly, the first author who contributed the most to the literature with his publications on 'TQM' and 'Tourism' is Schuster MA with 38 publications. His contribution is followed by Franz DR with 33 publications.

Table 3. Distribution of publications by authors contributing to the literature

Author	Frequency (n)	Years
Schuster MA.	38	2001
Franz DR.	33	1997
Galea S.	31	2000
Inglesby TV.	30	1999
Henderson DA.	29	1999
Torok TJ.	26	1997
North CS.	21	1999
Christopher GW.	17	1997
Hoffman B.	17	1998
Tucker JB.	15	1997

Information on the distribution of publications according to the statistics of the countries broadcasting in the fields of "TQM" and "Tourism" is given in Table 4. The findings indicate that the USA (n=223) collaborated the most. One of the main reasons for the development of TQM in the USA is because the concepts of quality assurance and total quality were first developed by Edwards Deming in the USA in 1940. On the other hand, Joseph Juran, an important quality

theorist, is another prominent name who made great contributions to the Japanese quality revolution from the USA. When the findings regarding other countries are analyzed, Israel (n=60) follows the USA, and Turkey (n=9) ranks eighth among the countries in terms of collaboration.

Table 4. Distribution of publications by country collaboration

Country	Frequency (n)	Year
USA	223	1992
Israel	60	1993
Canada	28	1994
Australia	24	1994
France	23	1992
Germany	18	2000
Japan	15	1995
Netherlands	11	2001
Turkey	9	1994
Scotland	8	1992
India	8	1999

The findings regarding collaboration between countries contributing to the field are given in Figure 2. Each node in the network in the figure represents a country. Connections, on the other hand, refer to the relations between these countries. The colors in the network represent the number of years during which country collaborations were carried out, as depicted in the timeline in Table 4. The orange color in the figure indicates current studies. In line with the findings, the fact that the connection colors are predominantly orange indicates that the collaboration between the countries is recent (Nebioğlu & Kalıpçı, 2020:7). A network consisting of 49 nodes and 51 connections has been determined in line with the findings obtained as a result of the analyzes. The density of this network was determined as 0.0434. At this point, the network is close to homogeneous and sufficiently divided into clusters.

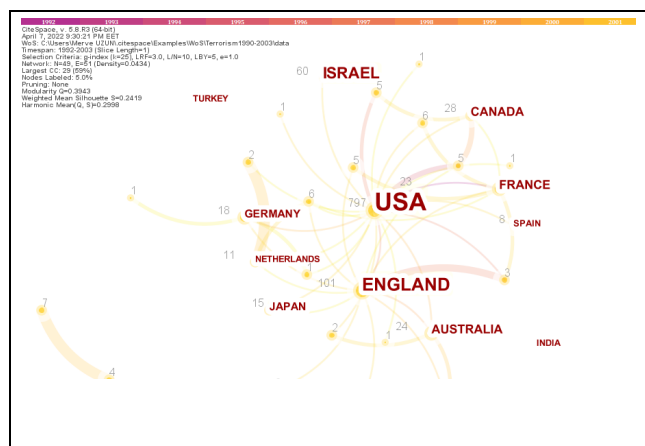


Figure 2. Country collaborations

5. Conclusion

The beginning of the TQM approach dates back to the 1950s. In this period, the concept of TQM started to display a rapid development trend in line with the contributions of

prominent names such as Deming and Juran, the Japanese pioneers of quality philosophy. The concept of 'quality' in all businesses and all kinds of sectors is of great importance for both employers, workers and consumers. Therefore, it is extremely important for continuous improvement that the TQM approach develops equally in all businesses and is reflected in all services.

The TQM approach serves the basic purposes of all businesses, such as fulfilling the needs and expectations of the end customers and, accordingly, ensuring customer satisfaction. The main purpose in the tourism sector is to ensure customer satisfaction, and therefore, the TQM approach must be considered a necessity for tourism enterprises rather than a requirement. The studies in the national and TQM literature on 'TQM' and 'Tourism', which are closely related to each other, were examined to this end in the study and the development process during the last 19 years was analyzed. The bibliometric analysis method was used in the study.

The aim of this study was to establish a bibliometric profile of the strong relationship between the concepts of 'TQM' and 'Tourism'. The analysis consisted of an examination of the distribution of publications by years, institutions, authors contributing to the field and country collaborations and an evaluation of the data. The findings indicate that when the distribution of publications by years is examined, studies on 'TQM' and 'Tourism' started to increase after the 1990s and they have increased rapidly especially after 2007. These results demonstrate an increase that is directly aligned with the development process of TQM.

An examination of the findings regarding the institutions that collaborate in the field puts Harvard University and the USA university in the first two places. The weight of these first two institutions contributing to the field in 1998 and 1999 is directly proportional to the years when TQM was first developed. These results are supported by the fact that Deming and Juran who are among the pioneers of TQM philosophy, first introduced and developed the concept of quality in the USA. However, the results regarding authors contributing to the field indicate that Schuster MA ranks in first place with 38 publications and Franz DR comes in second with 33 publications.

The fact that the author named Schuster MA is a graduate of Harvard University supports the results regarding institutions. The obtained findings support those of previous studies. On the other hand, according to the findings regarding countries that collaborate in the field, puts Israel and Canada at the top, and Turkey ranks in 8th place. Great importance is attached to publications in the field of 'TQM' and 'Tourism' in our country as well, however, more research needs to be done on the subject. Current competitive conditions, especially in the tourism sector, prioritize the importance of quality management and the need to keep it in the foreground. Therefore, it is of vital importance for the sector to focus more on both practice and theory.

Author contribution statements

Authors contributed equally to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript.

Disclosure statement

No potential competing interest was reported by the authors.

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All responsibility belongs to the researchers. All parties were involved in the research of their own free will.

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