

Leadership, TQM, and Business Excellence: A Systematic Review and Research Agenda (2014–2024)

Oon Fok-Yew, Normalini Md Kassim

School of Management, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia

normalini@usm.my (Corresponding author)

Abstract. This study presents a systematic review examining the relationships between leadership, total quality management (TQM), and business excellence (BE) through analysis of 656 research publications from 2014 to 2024. Using a rigorous systematic review methodology, we analyse publication trends, research contexts, and theoretical developments in the field. Our findings reveal that leadership behaviours and TQM practices significantly influence BE outcomes through various organisational elements, including strategy, information, customer, workforce, and process. The analysis shows increasing research interest in developing nations, with India, the UAE, and Malaysia leading contributions. This study suggests Stakeholder theory and the Resource-Based View (RBV) theory as underpinning theories for the proposed framework. We identify several research gaps, including limited investigation of digital transformation impacts, insufficient integration of Industry 4.0 concepts, and the need for more empirical studies in service sectors. This review contributes to theory by developing an integrated framework linking leadership, TQM, and BE elements while offering practical insights for implementing excellence frameworks across different organisational contexts. The findings inform future research and provide actionable guidance for organisations seeking to enhance performance and achieve sustainable excellence.

Keywords: Leadership, TQM, BE, Systematic Literature Review

1. Introduction

This systematic literature study aims to arrange, synthesise, and structure the body of knowledge pertaining to leadership, business excellence (BE), and total quality management (TQM). The paper intends to fill a gap in the literature by exploring the synergies between these concepts, offering insights for both academics and practitioners interested in improving organisational performance through leadership and quality management practices. In this literature review, the discussion of the BE field placed a strong emphasis on the value of leadership.

Leadership is crucial to business success because it gives the organisation's path to business excellence focus, inspiration, and direction. In addition, BE cannot be achieved without TQM. Without BE, sustainability cannot be accomplished (Jankalova & Jankal, 2020). Because the achievement of BE is at the core of TQM, and sustainability, which extends the BE dimensions to meet the needs of future stakeholders (Jankalova & Jankal, 2020). However, recent research by Ghafoor, Mann, and Grigg (2023) discovered that understanding of BE has somewhat increased over the previous three years, with an average of 11% to 20% of Chief Executive Officers (CEOs) and senior management being aware of it. Somehow, this result indicates that BE awareness is lacking and needs further investigation. Therefore, this research will fill the gap by looking at the current issues of BE and future directions in BE that are important for senior management. This review seeks to answer the following research questions:

1. How do leadership behaviours influence the BE elements and BE outcomes?
2. What are the critical interrelations between TQM practices and BE models?
3. What research gaps exist in the application of BE models across industries?

The current study seeks to investigate the BE models research from 2014 to November 2024 in an effort to close this literature gap while incorporating leadership, TQM, and BE as search terms in article searches. Understanding the study's dimensions and their interaction relationships is crucial to achieving business sustainability and navigating the challenges offered by an organisation's internal and external contexts. The majority of the review's attention is given to empirical studies and theoretical advancements in BE practice. This paper suggests that adding TQM together with BE to a comprehensive model may produce a more holistic result compared with previous studies. Following sections to review the literature and summaries the different levels of analysis: years of publication, categories of journals, and research context.

This paper is structured into seven sections. Section 2 reviews the relevant literature, establishing the study's foundation. Section 3 outlines the methodology. Section 3 outlines the methodology, detailing the systematic approach employed in this study, including the coding process, inclusion and exclusion criteria, and addressing publication bias. While Section 4 presents the findings, including descriptive analysis and the proposed conceptual model. Section 5 synthesises the results, and Section 6 addresses the research questions, offering directions for future research. Finally, Section 7 concludes with the study's implications, contributions, and limitations.

2. Literature Review

2.1. Business Excellence (BE) Models

The renowned book *In Search of Excellence: Lessons from America's Best-Run Companies* by Peters and Waterman, published in 1982, serves as the starting point for scholarly inquiry and discussion on the subject of organisational excellence. There are numerous suggestions regarding what constitutes excellence and what its definition entails. One significant contribution made by Peters and Waterman (1982) is their early identification of the significance of the soft dimension as success criteria for greatness, including staff, skills, style, systems, and shared values in addition to the hard dimensions of structure and strategy. Additionally, by focusing on the soft dimensions, it is possible to recognise

numerous intangible organisational phenomena like conventions, beliefs, values, styles, and patterns of behaviour. The soft aspects in an organisation identified by Peters and Waterman (1982) should be given more weight, according to research on excellence (Dahlgaard & Dahlgaard-Park, 2005). In actuality, the primary requirements from the BE models are the soft criteria, like leadership, people, and the human factor.

The Canada Awards for Excellence (CAE) Quality Award, established in 1984, recognises organisations demonstrating excellence in quality based on the Excellence Canada Framework, a widely used management model for continuous improvement. Since its inception, over 300 organisations have received the award (National Quality Institute, 2007). In 1987, the United States introduced the Malcolm Baldrige National Quality Award (MBNQA), which became a global benchmark for customer-focused management practices, contributing to the resurgence of U.S. business competitiveness. That same year, Australia introduced the Business Excellence Framework, followed by other nations developing their quality awards.

The European Quality Award, based on the European Foundation for Quality Management (EFQM) model and supported by the European Commission, was launched in 1991 to enhance European businesses' global competitiveness. Renamed the European Excellence Award in 2004, it influenced the creation of quality awards in Asia, including India's CII-EXIM Bank Award (1994), Singapore Quality Award (1995), and others in Japan, the Philippines, and Thailand. While many countries adopted EFQM and MBNQA models, Malaysia developed its distinct Prime Minister Quality Award in the 1990s, based on the Malaysia Business Excellence Framework (MBEF), serving as a key performance indicator for organisational excellence (Talwar, 2011).

Diverse viewpoints exist regarding how BE is developing and how it relates to TQM. Some authors, including Dahlgaard-Park (2011), also suggested replacing TQM with BE. According to Adebajo (2001), the word TQM was replaced with BE in the middle of the 1990s, and the quality models stated above were given the new moniker Business Excellence (BE) models. Despite being available since the 1990s, BE has not received much academic attention today. This might be because of the high failure rate associated with the deployment of TQM and BE models. The weaknesses include complex assessment criteria, cumbersome procedures, a lack of infrastructure, excessive paperwork, high bureaucracy, time-consuming processes, and unknown returns. This lack of clarity and knowledge of TQM is also seen to be a factor in the high number of reported TQM failures (Tickle et al., 2016). The research fields have evolved throughout time, moving from TQM to performance management and ultimately to BE (Unnikrishnan et al., 2019). TQM is related to sustainable performance in a positive way (Mohsin et al., 2023). Adem and Viridi (2023) also found that TQM practices had a significant direct and positive effect on both financial performance and operational performance. In addition, past literature reviews demonstrated that BE models have been recognised as effective tools for enhancing performance across different organisational sectors while identifying many limitations affecting the use of BE models (Salih & Dolah, 2022). In order to avoid being overlooked, the authors included both TQM and BE keywords in the literature search in the present study.

In the past, BE models have given organisations a benchmark for excellence, allowing them to assess their level of excellence, identify areas for improvement, and take the necessary steps to bring about those improvements. However, BE models do not have all the answers and do have significant limits. For instance, even though their financial performance wasn't always the top in their field, award-winning organisations nonetheless managed to generate exceptional financial results (Talwar, 2011). On the other hand, some excellent organisations may be reluctant to submit for awards because the procedure can be distracting, time-consuming, and demand additional effort (Tickle et al., 2016). In actuality, a recipient of this BE Award seeks to set themselves apart from competing businesses for adopting best practices and documenting noteworthy productivity results. The prize winners had

better financial results, promoted innovation, prioritised customers, increased efficiency, and cut operating expenses. Adopting BE best practices will indirectly increase the company's competitiveness on a worldwide scale.

Su, Liu and Wang (2024) studied the 159 manufacturing companies in China and concluded that digital transformation can help manufacturing companies to improve the output quality of innovation. The research concluded that the importance of manufacturing companies can effectively carry out digital transformation and improve the output of technological innovation. However, the limitation of this study cannot confirm the digital transformation impacts on overall organisational performance as well as the BE implementation.

Moreover, in the current digital era, Yaqub and Alsabban (2023) highlighted that Industry 4.0 technologies are the primary forces behind and/or facilitators of digital transformation for corporate practices, models, procedures, and routines. Only businesses that integrate digital technologies into their business processes will be able to compete in the future. However, companies need to be well aware of the risks, pain points, and obstacles that come with implementing Industry 4.0. In addition, how to integrate the Industry 4.0 concepts with BE models for competitive advantages.

In the last thirty years, BE models have been used in a variety of industries. In recent years, the BE models implementation industry has shifted from traditional manufacturing to services (Oon, Aziati & Abu, 2021). However, non-profit organisations (NPOs) around the world have begun to pay attention to BE models as a result of pressure from donors, governments, and the general public to increase performance (Claeye & Jackson, 2012). According to Ebrahim (2010), a number of state-sponsored nonprofit excellence associations have been formed in the USA in an effort to increase the efficacy of NPOs. According to Al-Tabbaa et al. (2013), the EFQM methodology can be applied to NPOs, self-evaluation, and improvement planning in the United Kingdom. Additionally, staff engagement, organisational culture, and leadership were recognised by Jevanesan et al. (2021) as critical implementation success elements in nonprofit organisations. While there are several restrictions limiting the usage of BE models in NPOs due to limited resources, including financial and human resources, BE Models have been acknowledged as useful tools for increasing performance across diverse organisational sectors (Salih & Dolah, 2022). The present systematic literature review will explore more research taking place on the BE topic.

2.2. Total Quality Management (TQM)

While there are various definitions of Total Quality Management (TQM), the widely recognised definition describes it as a comprehensive management approach that an organisation can use to function through fundamental ideas, continuous improvement, organisational change, and guiding principles. These elements, when properly linked, will produce desired organisational outcomes (Alanazi, 2020). Indeed, numerous scholars have looked into the connections between TQM practices and sustainability, which has led to inconsistent findings in various circumstances (Akanmu et al., 2021). The TQM, which emphasises quality improvements leading to organisational sustainable performance, is one such topic that is still up for debate. More research investigations are needed as a result of the conflicting findings from earlier studies.

Previous research has demonstrated that organisations benefit from using BE models (Alanazi, 2020). These models, for instance, can be applied to a thorough, systematic, and ongoing assessment of the practises and outcomes of the organisation in light of the requirements of the BE models (EFQM, 2015; NIST, 2015). The Deming Prize (DP) model of TQM, which focuses on process improvement towards excellence through TQM (Din et al., 2020), is internally focused. According to Din et al. (2020), the DP 2019 can be divided into three categories: "establishment of policies," "deployment of TQM principles," and "results." The Deming Prize does not offer a model framework for setting priorities or organising criteria, in contrast to other national or regional quality prizes. Rather, each

applicant must respond to 10 equally weighted points that are part of the examination. The DP is an annual prize given to a private or public organisation that has implemented TQM in accordance with its management philosophy, scope, type, and scale of management, as well as its corporate environment.

Studies show that Total Quality Management (TQM) fosters business excellence, increases productivity, and aids in organisations' attainment of favourable financial and nonfinancial results (Duh et al., 2012; Pimentel & Rogala, 2022). Recent study, Kumar et al. (2024) claimed that the TQM approach not only can increase the profit and reputation of a company but it also can increase the overall life quality of the employees in the small manufacturing enterprises in India. This highlights the holistic impact of TQM, suggesting it is not merely a management tool but a catalyst for fostering employee well-being and organisational harmony.

Alateyyat, Jaaron and Igudia (2024) analyzed the 331 empirical studies published from 2000 to 2022. Reported the recent developments in the relationship between TQM and organizational performance in the three sectors of the economy like the private, the public, and the third sectors. The results indicate a paucity of empirical research on TQM and OP within the third sector. The 'third sector' refers to the sector that encompasses social organisations and institutions that are neither part of the governmental public sector nor the for-profit business private sector.

Although TQM is at the core of most approaches to excellence, BE specifically ensures that improvement activities are fully integrated throughout an organisation (Zdrilic & Dulcic, 2016). Even though BE and TQM are essentially the same, BE has a more defined methodology. More recently, organisational change management and BE models have been offered as a complimentary approach to the "new managerial systems" (Dahlgaard et al., 2013; Murthy et al., 2021). The authors have included both TQM and BE terms in their searches of literature databases in order to have a thorough and comprehensive coverage of the current investigation.

2.3. Leadership Theories

One of the essential elements of contemporary models that aim to systematically improve quality is leadership, which also helps to establish the necessary conditions for organisational success and excellence (Jankalova *et al.*, 2018; Laureani & Antony, 2017). Leadership theory and TQM/BE are related, where leadership appears as a driver or enabler role in many of the TQM/BE models. The importance of leadership as a driving force on every system, process and strategy for achieving excellence (Metaxas & Koulouriotis, 2017). Despite this, there hasn't been much research on the characteristics or behavioural patterns of leaders that accomplish BE. This study draws attention to this research gap in the pursuit of more systematic research endeavours. As a result, the current study would emphasise how leadership behaviours and styles affect where TQM and BE are placed.

There are many definitions of "leadership" in the literature. According to Yukl (2006), leadership is a process in which leaders inspire followers to complete a shared goal and an objective. Pfeffer and Salancik (1975) cited that the leader displays relational and task-oriented behaviours. Two different types of leadership behaviour, including consideration and initiating structure, were also identified by Ohio State leadership research. Initiating structure is tied to the task completion process, whereas consideration refers to the leader acting in a helpful and cordial manner. Even while task-oriented behaviour and relations-oriented conduct were both validated by the Michigan investigations, the study also introduces participative leadership as a third type. Task-oriented leadership positions include supervisors that provide technical support to their subordinates as well as scheduling, planning, and organising activities and tasks for followers. In contrast, relational leadership involves managers who are more helpful, encouraging, and supportive of their subordinates. They exhibit assurance, trustworthiness, and an understanding of the issues facing their subordinates. (Yukl, 2006). All managers are assumed to be leaders (Fayyaz *et al.*, 2014). According to Hunter *et al.* (2007),

leader behaviour affects followers' perceptions and actions, which ultimately lead to some desired consequences. Conversely, followers anticipated that the leadership would consistently affect each of them.

These two extreme actions in reality, a leader rarely focuses entirely on either being completely task-oriented or completely people-oriented. Task-oriented leadership prioritises completion of tasks over human interaction. People-oriented leadership may place an undue emphasis on achieving outcomes in favour of the welfare of the team members. We ultimately require both leadership behaviours. In practise, generalisations are obviously only beneficial in theory (Laureani & Antony, 2017). High amounts of both extremes are assumed by this dichotomy as being ideal in all circumstances. According to Kerr's (1974) argument, the contingency theorists of leadership have suggested that the best leaders' actions may depend on the actual circumstances. Furthermore, even when working with the same person, various situations call for various styles of leadership. Given that the corporate environment is rapidly changing and that decision-making requires adaptation, this situational leadership method has become one of the most widely employed approaches internationally. Additionally, this approach helps to increase employee retention and employee commitment. In reality, the majority of leaders use the same leadership style in all circumstances.

The majority of the leadership literature pertaining to BE contained the transformational and participative approaches, which states that leaders should create and advance a vision and promote collaboration (Yukl, 2006). According to Burns (1978), a transformational leader is a person who creates, conveys, and exemplifies a team or organisation's vision while motivating subordinates to share that vision. It is required of a leader to effect change throughout the organisation in the highly competitive business world of today. Because all organisational levels and processes experience changes, this forces leadership to adapt to new methods of working. With a focus on setting an example, the transformational leadership style allows followers to identify the leader's vision and principles. The focus of a transformational strategy is on employees' unique strengths and limitations, strengthening their commitment and capacity to achieve organisational goals. While giving each employee the chance to grow personally and professionally, this is frequently done through getting their approval for decisions (Loh, Yusof & Lau, 2018). The transactional leadership style, which is used to create short-term objectives and define tasks, is the opposite of this (Qadir & Yesiltas, 2020).

Using the ten top-tier publications, including *Leadership Quarterly*, Dinh *et al.* (2014) conducted a thorough qualitative analysis of the new millennium's emerging leadership theory from 2000 to 2012. A total of 66 distinct leadership theory domains and a wide range of methodological methods have been acknowledged by Dinh *et al.* They also recommended that future studies be conducted to develop integrative viewpoints that examine how various leadership theories link to one another or work together to influence the creation of leadership phenomena. Finally, it is imperative to acknowledge that no unified theory of leadership exists at this time. Besides, a number of outcomes are emphasised by leadership theory. For instance, leaders can impact team performance by how they are viewed or by how their followers or team members act. Therefore, great leaders should not only motivate their team members but also have a good impact on the organisation as a whole.

3. Methodology

3.1. Selection of Articles

The authors made the decision to concentrate the review's scope on the BE for leadership and TQM effects. The authors utilised the Magnani, Carbone and Moatti (2019) systematic review technique, which aims to improve repeatability and give a suitable method for synthesising a growing field of knowledge like leadership, TQM, and BE. Additionally, this research methodology has the potential to reduce prejudice and improve research transparency. To choose and study the literature, the authors followed the thorough explanation of stages as shown in Figure 1. The authors conduct a peer-

reviewed journal article search in the first stage of a systematic literature review using key databases like Scopus, Emerald, ScienceDirect, Web of Science, and EBSCOhost. Extracted data points included publication metadata, theoretical frameworks, research methods, and findings. The key variables identified are leadership styles, soft/hard TQM factors, and BE model elements.

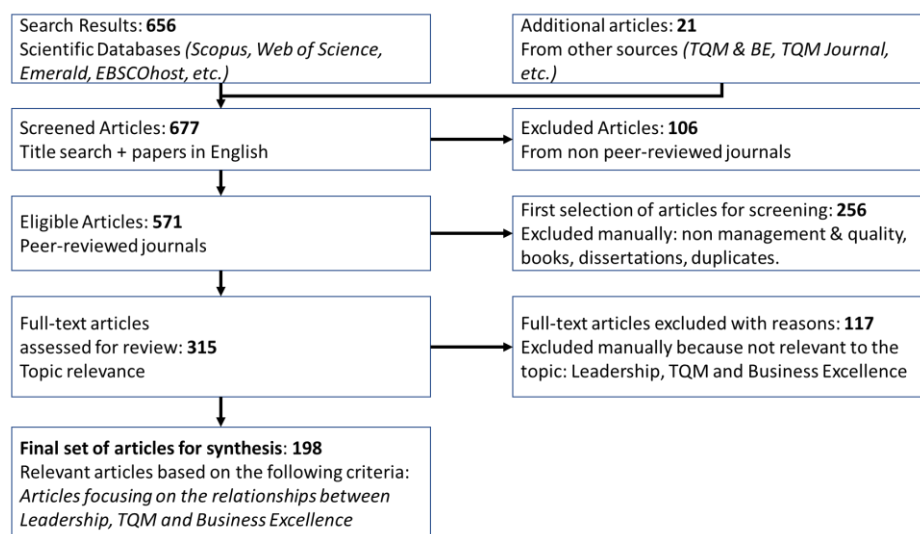
The following keywords were used to search for articles with English titles and/or abstracts:

- Leadership and/or Business excellence
- TQM and/or Business excellence

These three keywords are used to describe the three main areas of study that best reflect the authors' need to analyse a relationship. The study has selected papers from the last 11 years, which are from 2014 to November 2024. By referring to Figure 1, 656 articles were returned in the initial search from reputable databases for science (such as Scopus, Web of Science, ScienceDirect, Emerald, and EBSCOhost).

The inclusion criteria required that articles were peer-reviewed journal publications, written in English, focused on leadership, TQM, and/or Business Excellence, provided empirical, theoretical, or conceptual contributions relevant to the research objectives, and were available in full-text format. In contrast, the exclusion criteria eliminated articles that were dissertations, books, duplicates, non-peer-reviewed works, opinion pieces, or editorials, or those that focused on topics unrelated to quality and management. Following these criteria, 106 non-peer-reviewed journal articles were removed, reducing the number to 571. Additional research was conducted in major journals related to the topic, such as Total Quality Management & Business Excellence and The TQM Journal, to identify any overlooked content. After further screening, dissertations, books, and duplicates were eliminated, leading to a final dataset of 198 papers as presented in Figure 1.

The coding process involved categorising the articles by year, journal, and research context to ensure a comprehensive analysis of trends and themes. Two reviewers independently screened the articles, achieving a kappa coefficient of 0.85, which indicates a high level of inter-rater reliability. Articles were selected based on predefined inclusion and exclusion criteria, such as relevance to the research questions, availability of full texts, and peer-reviewed status. Multiple databases were systematically searched using a combination of keywords to ensure broad coverage. While the methodology relied on English-language sources, potentially introducing publication bias, efforts were made to mitigate this by consulting grey literature and cross-referencing key studies. This rigorous approach enhances the reliability and validity of the findings, though future research could expand to include non-English studies for a more global perspective.



Source: Magnani, Carbone and Moatti (2019)

Fig. 1: Search process and results

4. Results and Findings

After removing all the redundant items, the total number of articles from the original search of 656 has been further decreased. Thus, the total number of articles related to BE, leadership, and TQM that were reviewed was reduced to 198 papers. This includes 30 conceptual papers, 139 empirical studies, 22 reviews of the literature, 4 exploratory studies, and 3 case studies that make up this collection.

4.1. Publication Distribution

4.1.1 Year of Distribution

The number of papers circulated between 2014 and November 2024, as shown in Figure 2, indicates that there has been a rise in scholarly interest in the topic. In the recent five years, from 2020 to 2024, it has produced the most. As showed in Figure 2, there was a decline in publications in 2022 as a result of the journal search. In the year, only 17 papers were published.

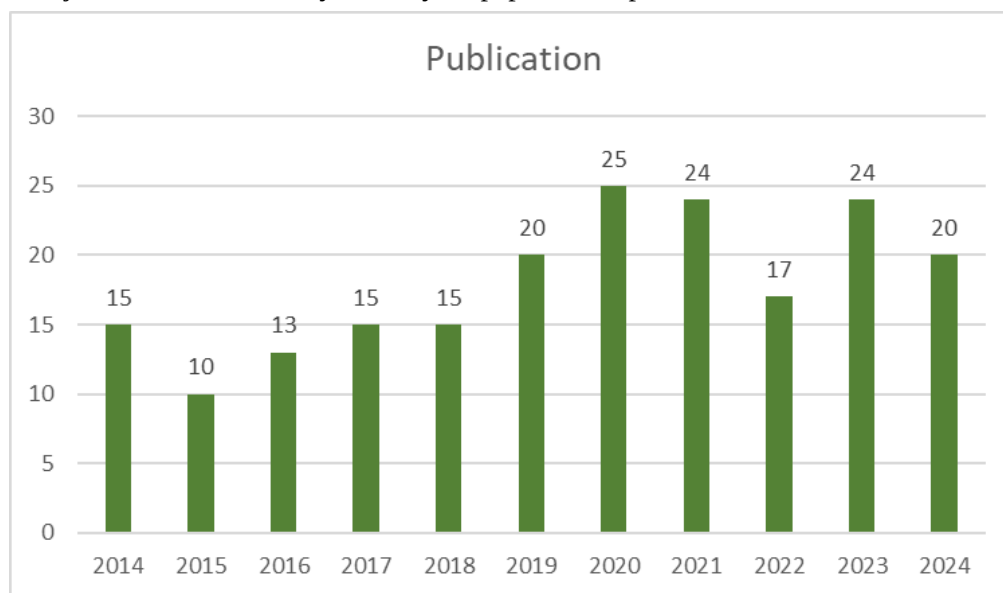


Fig. 2: Publication of articles (2014 – November 2024)

4.1.2 Journals

A complete list of the 198 papers has to be categorised by publication journal. Table 1 lists only journals containing more than one article with a total of 117 papers. Total Quality Management and Business Excellence, and The TQM Journal, both of which contributed 30 and 22 papers, respectively, were the two top journals. Then there were 8 papers that were taken from both Sustainability, and Measuring Business Excellence. International Journal of Business Excellence contributed 6 papers. The next three most popular journals, each with 5 papers, were the International Journal of Quality and Reliability Management, Benchmarking, and Proceedings of the International Conference on Industrial Engineering and Operations Management. There are 10 journals, each publishing 2 papers as outlined in Table 1. Additionally, the authors discovered that papers were published in journals and disseminated to a number of industries, containing manufacturing, family businesses, retail and distribution, higher education, health care, telecom industry, tourism and hospitality management, airports, science and engineering, the construction industry (Jabi *et al.*, 2024), pharmaceuticals (Modgil & Sharma, 2017; Nadeem *et al.*, 2024), the transportation sector (Karakasnaki & Gerou, 2024), virtual organisations (Carneiro *et al.*, 2024), public organisations, and NGOs (non-governmental organizations). This is a hint that the topic is dedicated to fields and settings other than the initial manufacturing or quality-control environment.

Table 1: Journals that are included in the present literature review with two or more articles

No	Journals	Total
1	Total Quality Management and Business Excellence	30
2	The TQM Journal	22
3	Sustainability (Switzerland)	8
4	Measuring Business Excellence	8
5	International Journal of Business Excellence	6
6	International Journal of Quality and Reliability Management	5
7	Benchmarking	5
8	Proceedings of the International Conference on Industrial Engineering and Operations Management	5
9	International Journal of Operations and Production Management	3
10	Cogent Business and Management	3
11	Business Process Management Journal	3
12	Quality - Access to Success	2
13	Asia Pacific Business Review	2
14	IEOM 2015 - 5th International Conference on Industrial Engineering and Operations Management, Proceeding	2
15	International Conference on Quality Engineering and Management	2
16	International Journal of Business and Society	2
17	International Journal of Health Care Quality Assurance	2
18	International Journal of Productivity and Quality Management	2
19	International Journal of Quality and Service Sciences	2
20	MATEC Web of Conferences	2
21	International Journal of Lean Six Sigma	2
	Total	118

4.2 Research Context

Each paper that has been published aims to establish whether a dominant nation or industry has ever existed on the basis of the research. Compared to conceptual papers, which are not, the majority of empirical research publications were related to a particular industry sector. Overall, there are more than four times as many empirical research papers (118 papers) as conceptual papers (29 papers), followed by literature reviews (22 papers), case studies (19 papers), and exploratory studies (6 papers). In the past few years, it has been apparent that TQM and BE have expanded their areas of applicability to several industrial sectors and service sectors. For instance, compared to the more conventional manufacturing sector in the past, TQM and BE have increased in publishing in other areas such as healthcare, education, public organisations. NGO and services.

The majority of studies are quantitative and qualitative in nature. Questionnaire surveys and cross-sectional study designs are commonly used in quantitative research, whereas qualitative research primarily relies on interview methods, as observed in the review papers. Figure 3 depicts the research participating nations and shows that, when compared to nations that contributed more than one article, those that supplied just one article or were labelled others and contributed 23 articles (11.6%) had a larger percentage of articles than those that contributed more than one item, except

India. India topped the list of nations producing the most papers with 20 (10.1%), UAE was second with 18 (9.1%), Malaysia was third with 15 (7.6%), Portugal was fourth with 12 (6.1%), and Greece was fifth with 10 (5.1%). Each of the remaining counties' contributions was less than 4%. Generally, the TQM, BE and leadership studies and research were distributed throughout the world. Furthermore, there are more studies conducted in the developing nations compared with the developed nations. The top three contributors are all from developing nations such as India, the UAE, and Malaysia.

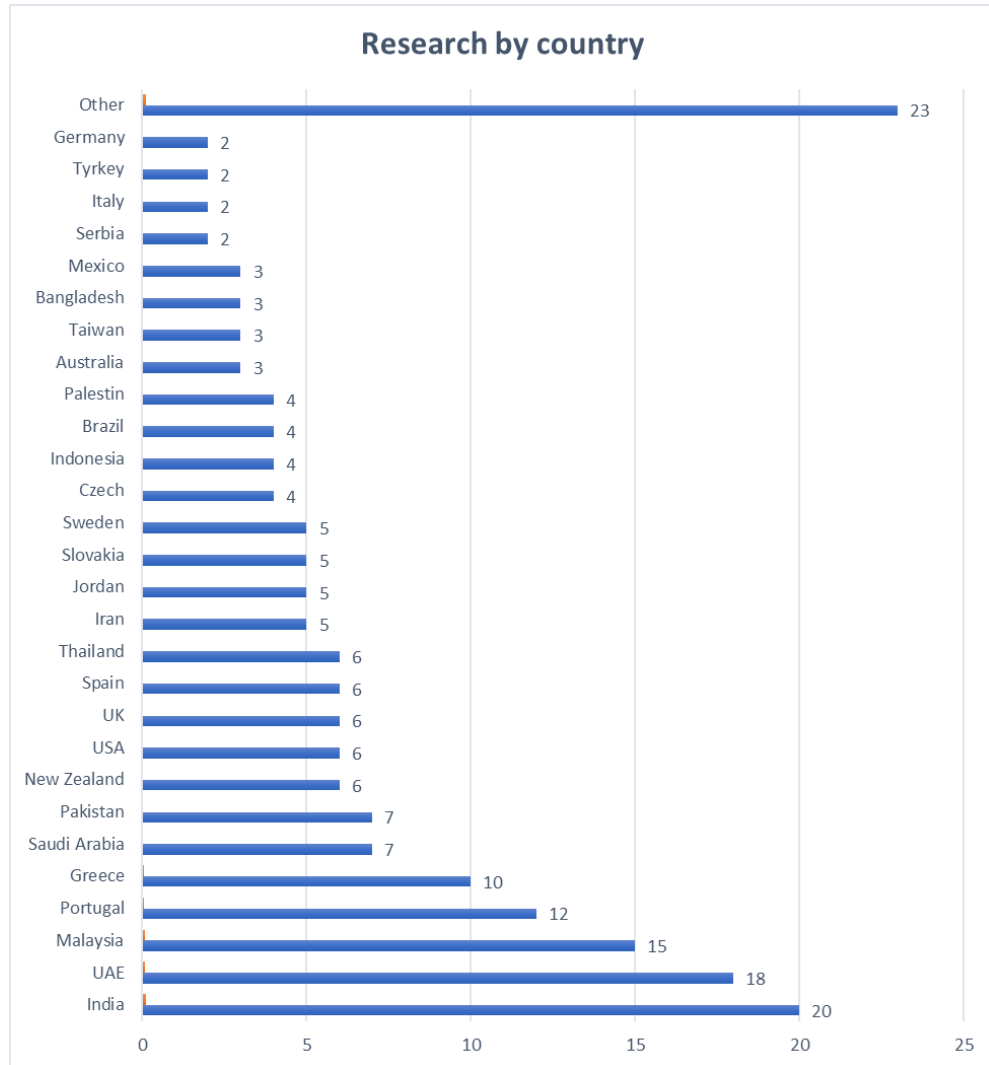


Fig. 3: Countries where research take place

There was a total of 198 publications assessed by the authors, and Table 2 shows that 70.2% (139 articles) of those were empirical papers, which make up the vast majority of the total. Conceptual papers came in second, contributing 15.2% of the total articles (30 articles), while literature reviews came in third, contributing 11.1% of the total articles (22 articles). With 2.0% (4 articles) and 1.5% (3 articles) of the remaining publications, respectively, case studies and exploratory papers made up the remainder, highlighting practical applications. When compared to the chosen literature review articles, the present study has the most recent until November 2024. While the majority of past literature publications combined Leadership and BE or TQM and BE, this study has looked at three different factors (Leadership, TQM, and BE) all together.

Table 2: Types of research paper

No.	Research paper	Total	Percent
1	Empirical studies	139	70.2%
2	Conceptual paper	30	15.2%
3	Literature review	22	11.1%
4	Case studies	4	2.0%
5	Exploratory studies	3	1.5%
		198	100.0%

5. Discussion

5.1. Overview of the Relationship between Leadership, TQM and BE

In several nations, BE models are widely used. According to Mohammad *et al.* (2011), a total of 94 National Quality/BE Awards applications came from 83 different nations. Talwar (2011), on the other hand, listed 100 BE models or National Quality Awards that were being used globally in 82 nations. Between 1985 and 2018 there was a considerable growth in business practises understanding and use in developing nations (Unnikrishnan *et al.*, 2019). Today's most BE models have been created through in-depth research and are constantly updated to the newest revision.

Ferdowsian (2016) emphasised that the current BE, National Quality Awards, and TQM methodologies begin with leadership and end with results. The system criteria that yield excellent results are driven by leadership (Fonseca, 2021). For instance, the premise guiding its award criteria is that leadership encourages activities to succeed in terms of customer satisfaction and company success (Talwar, 2011). According to empirical studies, leadership has a direct and beneficial effect on results (Fok-Yew & Hamid, 2021; Jabi *et al.*, 2024; Thunyachairat *et al.*, 2024; Jiang *et al.*, 2024; Chaher & Lakhal, 2024). As a result, it's critical for leaders to devote the necessary amount of time and effort to the relevant tasks in order to produce superior results (Loh *et al.*, 2018).

In the majority of prior studies, it was found that TQM practises and approaches had a positive impact on a number of important success factors, including innovation performance, performance and productivity, customer satisfaction, employee satisfaction, competitive edge, quality performance (Nadeem *et al.*, 2024), customer base, financial results (Jiang *et al.*, 2024), sustainable performance (Jabi *et al.*, 2024), and overall firm performance (Magd, Negi & Ansari, 2021; Thunyachairat *et al.*, 2024; Chaher & Lakhal, 2024). TQM practises have a considerable impact on operational performance, according to a study (Adem & Viridi, 2020). Importantly, it has been stated that the soft elements are more important for a successful TQM implementation than the hard ones are (Georgiev & Ohtaki, 2019; Calvo-Mora *et al.*, 2014). Intangible soft aspects include the leadership and participation of top management (Georgiev & Ohtaki, 2019; Saleh *et al.*, 2018; Modgil & Sharma, 2017). The involvement of top management is typically one of the key factors contributing to organisational success. The different findings from earlier research studies have therefore prompted the need for additional research studies.

The authors recommend using the conceptual framework depicted in Figure 4 to illustrate the relationship among the leadership, TQM, and BE elements gleaned from the literature. Stated differently, Figure 4 is a synthesize of selected articles from this study. Figure 4 quotes important variables or elements from a recent study that appeared five or more times. Therefore, research has demonstrated the importance of leadership behaviours and styles that drive key elements, including strategy, information, customers, workforce, and process, to achieve BE results in the research model. The BE results are holistic and consist of operational performance or excellence, customer results,

people results, leadership results, financial and market results, society results, and environmental results. Similarly, TQM practices have a causal relationship with strategy, information, customers, workforce, process, and the BE results in this model.

From a theoretical perspective, this model is guided by Stakeholder Theory (Freeman, 1984) and Resource-Based View (RBV) Theory (Barney, 1991, 2001). Stakeholder Theory posits that an organization's success depends on effective collaboration with various stakeholders, such as leadership, customers, and the workforce. Meanwhile, RBV emphasizes that an organization's competitive advantage stems from valuable, rare, inimitable, and non-replaceable resources. This model facilitates the generation of such resources, including strategy, knowledge, and unique internal processes, enabling effective stakeholder integration and positioning stakeholder relationships as an inimitable resource (Barney, 1991, 2001; Fonseca, 2021). Ultimately, this integration contributes to achieving business excellence.

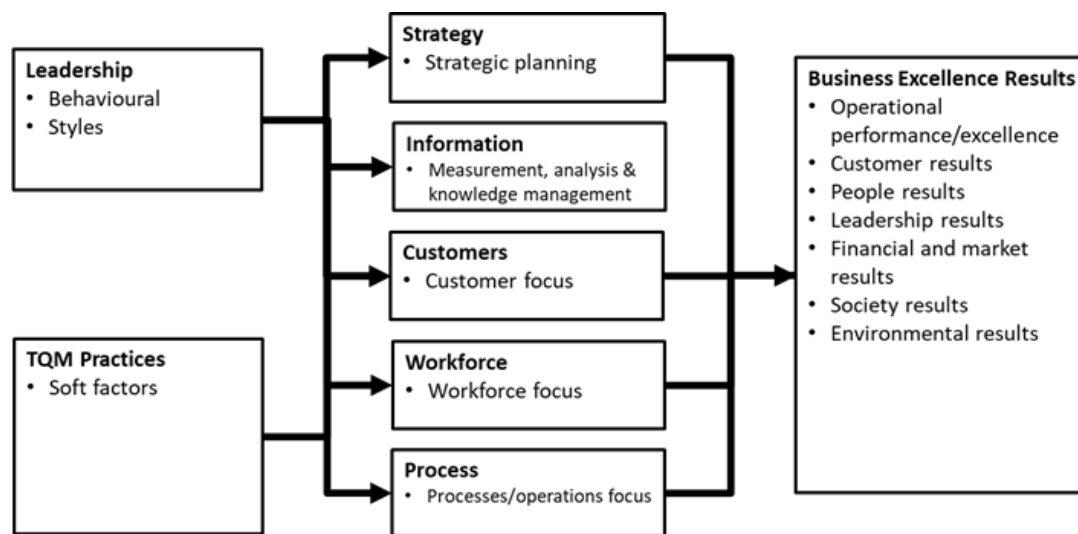


Fig. 4: Conceptual model of Leadership, TQM practices and BE elements

In the present study, the important relationships summarised in the literature were demonstrated by this model as shown below.

1. The effect of leadership behaviours and styles on organisational BE elements (strategy, information, customers, workforce, and process).
2. The influence of soft TQM practises on organisational BE elements (strategy, information, customers, workforce, and process) within the organisation.
3. The effects of the organisational BE elements (strategies, information, clients, employees, and process) on the results of BE.
4. The results of the BE are produced by the combination of the aforementioned factors.

6. Addressing Research Questions and Future Research Suggestions

Before concluding this study, the following section summarises the key findings to address the research questions posed:

1. How do leadership behaviours influence the BE elements and BE outcomes?

This thorough literature assessment also highlighted the requirement for more leadership research in BE models. The review confirms that leadership behaviours, particularly transformational and participative styles, are critical enablers of BE. These leadership styles align strategic objectives with operational processes, fostering collaboration, innovation, and commitment among employees.

Leaders' ability to inspire and guide their teams has a direct impact on achieving excellence across various BE dimensions, such as strategy planning, customer focus, information sharing, workforce engagement, and process management. If an organisation decides to go on such a journey, it may make sure the right leaders are in place by describing the attributes that are more encouraging to a successful BE.

2. What are the critical interrelations between TQM practices and BE models?

TQM practices are found to be integral to the successful implementation of BE models. The analysis highlights those soft factors of TQM, such as culture, leadership commitment and workforce engagement, significantly contribute to achieving sustainable performance. These practices enhance organizational alignment by linking key elements like strategy, customer, information, workforce and process with BE outcomes. In a recent study, Ali and Johl (2021) also found that top management support and the soft TQM dimension are necessary for successful Quality 4.0 adoption in the workplace. Thus, it would be interesting to do an empirical investigation into some of the soft TQM factors and leadership behaviours in future studies. This would help us comprehend the forces behind the BE models better.

3. What research gaps exist in the application of BE models across industries?

Recent studies (e.g., Su et al., 2024; Yaqub & Alsabban, 2024) highlight the emerging digital transformation and Industry 4.0 in manufacturing companies, but integration into BE models is still lacking. Recent research by Ali (2024) indicates that TQM is still a prevalent practice in the manufacturing sector. The results show that TQM research has received a lot of attention in established economies and requires more attention in emerging and developing nations and the service sector. These gaps suggest opportunities for future research to address these limitations and further the understanding of BE models in diverse contexts.

By addressing these research questions, this study provides a foundation for advancing the theoretical and practical integration of leadership, TQM, and BE. The insights gained highlight areas for further exploration, particularly in adapting excellence frameworks to evolving organisational and technological landscapes.

7. Conclusion, Implications and Limitations

7.1. Conclusion and implications

This systematic review advances our understanding of how leadership, TQM, and BE interrelate in contemporary organizations. Our analysis reveals several key findings. First, effective leadership remains crucial for successful BE implementation, particularly through transformational and participative approaches. Second, soft TQM factors consistently show stronger influence on BE outcomes compared to technical elements. Third, BE models are increasingly being adopted in service sectors, requiring adaptation of traditional manufacturing-based frameworks. The review identifies important research gaps requiring attention: 1) limited investigation of digital transformation impacts on BE implementation, 2) insufficient integration of Industry 4.0 concepts with BE models, 3) need for more empirical studies in emerging economies and service sectors. Future research should examine how leadership requirements evolve with technological advancement, investigate BE implementation in digital contexts, and develop integrated frameworks incorporating sustainability dimensions.

Our findings have significant implications for practice. Organisations implementing BE models should focus on developing appropriate leadership capabilities, emphasise soft TQM factors, and adapt frameworks to specific industry contexts. The proposed integrated framework provides a practical guide for organisations pursuing excellence while highlighting the critical role of leadership

in driving successful implementation. However, it is crucial to account for the unique context and characteristics of the industry sector to ensure the effective application of this investigation.

7.2. Limitations

Although this review adhered to a systematic literature review methodology and provided valuable insights, certain limitations must be acknowledged. The review focused exclusively on peer-reviewed studies published in English and sourced from major electronic databases such as Scopus, Emerald, ScienceDirect, Web of Science, and EBSCOhost. Consequently, relevant studies in other languages or accessible through alternative databases may have been excluded. Further investigation is encouraged to expand the scope by incorporating studies from additional databases and languages to ensure a more comprehensive understanding of Leadership, TQM practices, and BE elements.

References

- Adebanjo, D. (2001). TQM and business excellence: is there really a conflict? *Measuring Business Excellence*, 5(3), 37-40.
- Adem, M. K. & Viridi, S. S. (2020). The effect of TQM practices on operational performance: an empirical analysis of ISO 9001:2008 certified manufacturing organisations in Ethiopia. *The TQM Journal*, 1754-2731. DOI 10.1108/TQM-03-2019-0076.
- Adem, M. K. & Viridi, S. S. (2023). The structural link between TQM practices and financial performance: the mediating role of operational performance. *International Journal of Quality & Reliability Management*, 41(1), 392-422. DOI 10.1108/IJQRM-08-2021-0290
- Akanmu, M. D., Hassan, M. G., Mohamad, B. & Nordin, N. (2021). Sustainability through TQM practices in the food and beverages industry. *International Journal of Quality & Reliability Management*, 40(2), 335-364.
- Alanazi, M. H. (2020) The mediating role of primary TQM factors and strategy in the relationship between supportive TQM factors and organisational results: An empirical assessment using the MBNQA model. *Cogent Business & Management*, 7(1), <https://doi.org/10.1080/23311975.2020.1771074>
- Alateyyat, S. K., Jaaron, A. A. M. & Igudia, E. (2024). Unveiling the status of TQM-performance link in the private, public, and third sectors: a systematic review. *Total Quality Management*, 35(9), 938–970. <https://doi.org/10.1080/14783363.2024.2348660>
- Ali, K. (2024). Total quality management in manufacturing firms: current and future trends. *Foresight*, 26(3), 505-530. DOI 10.1108/FS-09-2023-0180
- Ali, K. & Johl, S. K. (2021). Soft and hard TQM practices: future research agenda for industry 4.0, *Total Quality Management & Business Excellence*. DOI: 10.1080/14783363.2021.1985448, <https://doi.org/10.1080/14783363.2021.1985448>
- Al-Tabbaa, O., Gadd, K. & Ankrah, S. (2013). Excellence models in the non-profit context: strategies for continuous improvement. *International Journal of Quality & Reliability Management*, 30(5), 590-612, DOI: 10.1108/02656711311315521
- Anderson, M. H. & Sun, P. Y. T. (2015). Reviewing leadership styles: Overlaps and the need for a new ‘full-range’ theory. *International Journal of Management Reviews*. <https://doi.org/10.1111/ijmr.12082>
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643–650. Retrieved from <https://doi.org/10.1177/014920630102700602>
- Burns, J. M. (1978). *Leadership*. New York: Harper and Row.

- Calvo-Mora, A., Ruiz-Moreno C., Picón-Berjoyo A. & Cauzo-Bottala, L (2014). Mediation effect of TQM technical factors in excellence management systems. *Journal of Business Research*, 67, 769–774.
- Carneiro, W. N., Mendonça Neto, O. R., Afonso, P., Oyadomari, J. C. T., & Dutra-de-Lima, R. G. (2024). Implementing total quality management in a virtual organisation: Thoughts and lessons from an interventionist approach. *Business Process Management Journal*, 30(6), 1916–1942. <https://doi.org/10.1108/BPMJ-11-2023-0876>
- Chaher, D. & Lakhal, L. (2024). The impact of TQM on financial and non-financial performance: the mediating role of corporate social responsibility. *The TQM Journal*, 1754-2731. DOI 10.1108/TQM-08-2023-0244
- Claeys, F. & Jackson, T. (2012). The iron cage re-revisited: institutional isomorphism in nonprofit organizations in South Africa. *Journal of International Development*, 24(5), 602-622.
- Dahlgaard, J.J., & Dahlgaard-Park, S.M. (2005). In search of excellence – past, present and future. *Paper presented at the International Conference on Quality (ICQ'05), Tokyo, 13-16 September*.
- Dahlgaard-Park, S. M. (2011). The quality movement: Where are you going?, *Total Quality Management & Business Excellence*, 22(5), 493-516.
- Dahlgaard, J. J., Chen, Chi-Kuang, Jang, Jiun-Yi, Banegas, L. A. & Dahlgaard-Park, S. M. (2013). *Business excellence models: limitations, reflections and further development*, *Total Quality Management & Business Excellence*, 24(5-6), 519-538. DOI:10.1080/14783363.2012.756745
- Din, A. M., Asif, M. & Awan, M. U. (2020). What makes excellence models excellent: a comparison of the American, European and Japanese models. *The TQM Journal*, 1754-2731. DOI 10.1108/TQM-06-2020-0124
- Dinh, J. E., Lord, R. G., Gardner, W. L., Meuser, J. D., Liden, R. C. & Hu, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The Leadership Quarterly*, 25(1), 36-62.
- Duh, R.-R., Hsu A.W.-H. & Huang P.-W. (2012), Determinants and performance effect of TQM practices: An integrated model approach. *Total Quality Management & Business Excellence*, 23(5–6), 689–701.
- Ebrahim, A. (2010). Nonprofit agency challenges. *Journal of Policy Analysis and Management*, 29(3), 628-632.
- European Foundation for Quality Management (EFQM). (2015). *The Excellence Model*. EFQM, Brussels.
- Fayyaz, H., Naheed, R. & Hasan, A. (2014). Effect of Task Oriented and Relational Leadership Style on Employee Performance; Moderating Impact of Communicator Competence. *Journal of Marketing and Consumer Research*, 3, 2014.
- Ferdowsian, M. C. (2016). Total business excellence – a new management model for operationalizing excellence. *International Journal of Quality & Reliability Management*, 33(7), 942-984.
- Fok-Yew, O. & Hamid, N. A. A. (2021). The Influence of Lean Practices and Leadership on Business Excellence: Malaysian E&E Manufacturing Companies. *Estudios Economic Aplicada*, 39(4).
- Fonseca, L. (2021): The EFQM 2020 model. A theoretical and critical review. *Total Quality Management & Business Excellence*. DOI:10.1080/14783363.2021.1915121
- Freeman, R. E. (1984). *Strategic Management: a stakeholder approach*. Pitman.

- Georgiev, S. & Ohtaki, S. (2019). Critical success factors for TQM implementation among manufacturing SMEs: Evidence from Japan. *Benchmarking: An International Journal*, 27(2), 473-498. DOI: 10.1108/BIJ-01-2019-0037.
- Ghafoor, S., Mann, R. S. & Grigg, N. (2023). An investigation of the global awareness of business excellence and best practices in promoting the use of business excellence. *Total Quality Management & Business Excellence*, 34(13-14), 1857-1881. <https://doi.org/10.1080/14783363.2023.2210061>
- Hunter, S. T., Bedell-Aver, K. E., & Mumford, M. D. (2007). The Typical Leadership Study: Assumptions, implications, and potential remedies. *The Leadership Quarterly*, 18, 435-446.
- Jabi, I., Faour, M. & Saleh, Y. (2024). Impact of total quality management on the sustainable performance in the Palestinian construction industry. *The TQM Journal*, 1754-2731. DOI 10.1108/TQM-05-2024-0174
- Jankalova, M., & Jankal, R. (2020). How to Characterize Business Excellence and Determine the Relation between Business Excellence and Sustainability. *Sustainability* 2020, 12, 6198. DOI:10.3390/su12156198
- Jankalova, M., Jankal, R. & Blaskova, M. (2018). The Importance of Leadership in Selected Business Excellence Models. *Quality Access to Success*, 19(162).
- Jevanesan, T., Antony, J., Rodgers, B. and Prashar, A. (2021). Applications of continuous improvement methodologies in the voluntary sector: a systematic literature review. *Total Quality Management & Business Excellence*, 32(3/4), 431-447.
- Jiang, J., Younis, I., Chen, W., Zhou, H., Yao, Q. & Cheng, L. (2024). The impact of quality awards on the financial performance of manufacturing industries. Evidence from the Delta region of China. *Total Quality Management & Business Excellence*, 35, 13-14.
- Karakasnaki, M. & Gerou, A. (2024). Soft TQM for competitive advantage in the transportation sector: investigating green human resource management and stakeholder integration. *The TQM Journal*. DOI:10.1108/TQM-07-2023-0225
- Kerr, S., Schriesheim, C. A., Murphy, C. J. & Stogdill, R. M. (1974). Toward a contingency theory of leadership based upon the consideration and initiating structure literature. *Organizational Behaviour and Human Performance*, 12, 62-82.
- Kumar, D., Biswas, S., Manna, S. & Sarkar, D. (2024). Implementation of Total Quality Management in Small Manufacturing Enterprises, *International Journal of Advanced Research in Science, Engineering and Technology*, 11(1).
- Laureani, A., & Antony, J. (2017). Leadership characteristics for Lean Six Sigma. *Total Quality Management & Business Excellence*, 28(3-4), 405-426.
- Loh, K. L., Yusof, S. M. & Lau, D. H. C. (2018). Blue ocean leadership in lean Sustainability. *International Journal of Lean Six Sigma*, <https://doi.org/10.1108/IJLSS-06-2016-0029>
- Magd, H., Negi, S. & Ansari, M. S. A. (2021). Effective TQM Implementation in the Service Industry: A Proposed Framework. *Quality Innovation Prosperity/Kvalita Inovacia Prosperita*, 25(2), 95-129, DOI: 10.12776/QIP.V25I2.1594
- Magnani, F., Carbone, V. & Moatti, V. (2019). The human dimension of lean: a literature review. *Supply Chain Forum: Supply Chain Forum: An International Journal*. Retrieved from <https://doi.org/10.1080/16258312.2019.1570653>

- Metaxas, I. N., & Koulouriotis, D. E. (2017). Business excellence measurement: a literature analysis (1990–2016). *Total Quality Management & Business Excellence*. Retrieved from <http://doi:10.1080/14783363.2017.1356201>
- Modgil, S. & Sharma, S. (2017). Impact of hard and soft TQM on supply chain performance: empirical investigation of pharmaceutical industry. *International Journal of Productivity and Quality Management*, 20(4), 513-533.
- Mohammad, M., Mann, R., Grigg, N., & Wagner, J. P. (2011). Business Excellence Model: An overarching framework for managing and aligning multiple organisational improvement initiatives. *Total Quality Management & Business Excellence*, 22(11), 1213-1236.
- Mohsin, M., Shamsudin, M. N., Jaffri, N. R., Idrees, M., Jamil, K. (2023). Unveiling the contextual effects of total quality management to enhance sustainable performance. *The TQM Journal*. DOI 10.1108/TQM-05-2023-0124
- Murthy, M. A. N., Sangwan, K. S. & Narahari, N. S. (2021). Tracing evolution of EFQM and its relationship with Industry 4.0. *Total Quality Management and Business Excellence*. DOI: 10.1080/14783363.2021.1999802
- Nadeem, F., Hussain, A & Awan, M. U. (2024). Investigating the role of entrepreneurial orientation and total quality management in enhancing pharmaceutical quality performance. *International Journal of Pharmaceutical and Healthcare Marketing*, 1750-6123. DOI 10.1108/IJPHM-05-2023-0036
- National Quality Institute (2007). *Canada Awards for Excellence*. Retrieved from <https://excellence.ca/en/knowledge-centre/articles/why-nqi-for-organizations-inbritish>
- NIST. (2015). *Baldrige Excellence Framework*. National Institute of Standards and Technology.
- Peters, T.J. & Waterman, R.H. (1982), *In Search of Excellence: Lessons from America's Best Run Companies*, 1st ed., Harper & Row, New York, NY.
- Pfeffer, J., & Salancik, G. R. (1975). Determinants of supervisory behavior: A role set analysis. *Human Relations*, 38, 138-153.
- Pimentel, L. & Rogala, P. (2022). The Relationship Between EFQM Recognition System and Management Maturity. *Management and Production Engineering Review*, 13(2), 81-91. DOI: 10.24425/mper.2022.142057
- Qadir, K. H. & Yesiltas, M. (2020). Effect of leadership styles on organizational commitment and performance in small- and medium-sized enterprises in Iraqi Kurdistan. *Social Behavior and Personality*, 48(9). Retrieved from <https://doi.org/10.2224/sbp.9197>
- Oon F.-Y., Aziati, A. H. N. & Abu, A. S. E. (2021). Business Excellence, Leadership and Lean: A Systematic Literature Review. *International Journal of Business and Society*, 22(1), 332-345. Retrieved from <https://doi.org/10.33736/ijbs.3178.2021>
- Saleh, R.A., Sweis, R.J. & Mahmoud Saleh, F.I. (2018). Investigating the impact of hard total quality management practices on operational performance in manufacturing organizations: evidence from Jordan. *Benchmarking: An International Journal*, 25(7), 2040-2064.
- Salih, O. & Dolah, R. (2022). Implementing business excellence models in Saudi nonprofit organizations and the impact of human resources availability. *Measuring Business Excellence*. DOI: 10.1108/MBE-01-2022-0008

- Su, J., Liu, J., & Wang, S. (2024). A study on the action mechanism of digital transformation on the output quality of technological innovation. *Total Quality Management & Business Excellence*, 35(7), 1-20. DOI:10.1080/14783363.2023.2290651
- Talwar, B. (2011). Business excellence models and the path ahead *The TQM Journal*, 23(1), 21-35.
- Thunyachairat, A., Jangkrajarn, V. & Theeranuphattana, A. (2024). Total Quality Management Lean Practices and Firm Performance: Integrated Approach Using MBNQA Criteria in the Thai Automotive Industry. *Production Engineering Archives 2024*, 30(3), 273-284.
- Tickle, M., Mann, R., & Adebajo, D. (2016). Deploying business excellence – success factors for high performance. *International Journal of Quality & Reliability Management*, 33(2), 197-230.
- Unnikrishnan, P. M., Tikoria, J. & Agariya, A. K. (2019). TQM to business excellence: A research journey (1985-2018). *International Journal of Business Excellence*, 19(3), 2019 323-363
- Yaqub, M. Z. & Alsabban, A. (2023). Industry-4.0-Enabled Digital Transformation: Prospects, Instruments, Challenges, and Implications for Business Strategies. *Sustainability*, 15. Retrieved from <https://doi.org/10.3390/su15118553>
- Yukl, G. A. (2006). *Leadership in organizations* (6th ed., ch. 3). Upper Saddle River, NJ: Pearson Education.
- Zdrilic, I. & Dulcic, Z. (2016). Business Excellence as a Success Factor for the Performance of Large Croatia Enterprises, *Management*, 21(1), 145-162.