Entrepreneurial Leadership Style During the COVID-19 Pandemic: A Systematic Literature Review

(*Gaya Kepimpinan Usahawan Semasa Pandemik COVID-19: Kajian Literatur Yang Sistematik*)

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ABSTRACT

The COVID-19 pandemic has underscored the urgent requirement for efficient leadership in both traditional workplaces and entrepreneurial enterprises. Despite previous research suggesting various leadership styles to alleviate work-related stress, limited research has investigated the leadership style adopted by entrepreneurs during the COVID-19 pandemic. This SLR identifies various leadership styles, including open leadership, transformational, transactional, responsible, and inclusive leadership, among others. However, the most appropriate leadership style largely depends on the situation at hand. This study's systematic literature review followed the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guideline. It studied data from Scopus and Web of Science from 2020 to 2023. Initially identifying 186 articles, the investigation concluded with 22 articles that provided a full assessment of trends as well as a topic overview. The review found a majority of studies using quantitative methodologies. The review also emphasizes the need for future research to investigate additional characteristics of leadership style, such as the effects of culture, demographic demographics, and organizational decision-making processes on leadership effectiveness. This review provides essential guidance for navigating leadership complexities in entrepreneurship, particularly amidst crises like the COVID-19 pandemic.

Keywords: COVID-19; leadership style; entrepreneur; systematic literature review; scoping review; PRISMA

ABSTRAK

Pandemik COVID-19 telah menekankan keperluan mendesak untuk kepimpinan yang cekap dalam kedua-dua tempat kerja tradisional dan perusahaan keusahawanan. Walaupun penyelidikan terdahulu mencadangkan pelbagai gaya kepimpinan untuk mengurangkan tekanan berkaitan kerja, penyelidikan terhad telah menyiasat gaya kepimpinan yang diguna pakai oleh usahawan semasa pandemik COVID-19. SLR ini mengenal pasti pelbagai gaya kepimpinan, termasuk kepimpinan terbuka, kepimpinan transformasi, transaksional, bertanggungjawab dan inklusif, antara lain. Walau bagaimanapun, gaya kepimpinan yang paling sesuai sebahagian besarnya bergantung kepada situasi yang dihadapi. Kajian literatur sistematik kajian ini mengikut garis panduan Item Pelaporan Pilihan untuk Kajian Sistematik dan Meta-Analisis (PRISMA). Ia mengkaji data daripada Scopus dan Web of Science dari 2020 hingga 2023. Pada mulanya mengenal pasti 186 artikel, penyiasatan diakhiri dengan 22 artikel yang memberikan penilaian penuh arah aliran serta gambaran keseluruhan topik. Semakan mendapati majoriti kajian menggunakan metodologi kuantitatif. Kajian semula itu juga menekankan keperluan untuk penyelidikan masa depan untuk menyiasat ciri tambahan gaya kepimpinan, seperti kesan budaya, demografi demografi dan proses membuat keputusan organisasi terhadap keberkesanan kepimpinan. Ulasan ini menyediakan panduan penting untuk mengemudi kerumitan kepimpinan dalam keusahawanan, terutamanya di tengah-tengah krisis seperti pandemik COVID-19.

Kata kunci: COVID-19; gaya kepimpinan; usahawan; kajian literatur sistematik; kajian skop; PRISMA

INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) proclaimed the SARS-CoV-2 virus (COVID-19) a pandemic. This global health crisis has not only disrupted workplaces but has also underscored the crucial need for good leadership in such circumstances, as previously observed in study (Butt 2021). Some studies have suggested the use of various leadership styles, such as authentic as possible strategies to alleviate work-related stress (Ahmed et al. 2020; Oruh et al. 2021). Although COVID-19 forced us to adopt new habits such as social distancing, mask wearing, and virtual employment, the leadership behaviours required for community and societal

survival during this epidemic are critical. However, to the authors' knowledge, limited research has studied the leadership styles embraced by entrepreneurs during the COVID-19 crisis (Gilani et al. 2023; Portuguez Castro & Gomez Zermeno 2021).

Entrepreneurship plays a crucial role during crises as it offers a positive outlook on changing situations (Galindo-Martín et al. 2021), prompting individuals to recognize opportunities. Two significant responses are apparent concerning entrepreneurship and small and medium-sized enterprises. First, governments worldwide have promptly implemented diverse economic stabilization measures on a global scale to prevent widespread bankruptcies and closures of small businesses (Hemmer 2020), while also aiming to kickstart rapid recovery and growth (Kuckertz et al. 2020). Second, with an emphasis on helping the less fortunate in their areas, local businesses and communities have formed mutually beneficial partnerships.

In times of crisis, small enterprises must adapt their leadership style to ensure their survival and the well-being of their local communities (Ramli et al. 2023). This process entails rebuilding local support systems to alleviate the societal impacts of crises (Nalley 2023). It is essential to comprehend the recovery mechanisms of small enterprises, particularly those that are family-owned (Chaudhuri et al. 2022), due to their substantial impact as critical economic drivers and accelerators for community revitalization (Mahto et al. 2022).

For any organization, significant disruptions like those caused by the COVID-19 pandemic can jeopardize business continuity (Riglietti et al. 2021). Nevertheless, regardless of the magnitude of crises' effects, the research suggests that organizations still prioritize crisis preparedness and management procedures as a secondary issue (Giones et al. 2020). Effective crisis management is crucial because a lack of responsiveness during crises, including the COVID-19 pandemic, can threaten business continuity. In such situations, the leader, as the organization's head, plays a pivotal role in responding appropriately and promptly with limited resources (Beilstein et al. 2021; Dwiedienawati et al. 2021).

Leadership is a complex and evolving concept that has been studied extensively over the years (Maak et al. 2021). Managing challenges arising from diverse sources is crucial, including the situation, followers, and leaders' characteristics. Leaders must adapt to the constantly changing circumstances they encounter to effectively understand and fulfill their roles in managing followers (Issah 2018). However, the situation at hand largely determines the most appropriate leadership approach (Wang & Xu 2019). In addressing employees' concerns, effective management and leadership, particularly in extreme situations like the COVID-19 pandemic, must incorporate compassion as an essential component (Maak et al. 2021). The purpose of this study is to answer the following research question: what leadership styles have been employed by entrepreneurs during the COVID-19 epidemic, as shown in the extant literature?

Verma and Gustafsson (2020) undertook a systematic review of numerous theoretical, conceptual, and empirical research opportunities in understanding the evolution of new paradigms and the advancement of existing ideas in the business sector because of the disruption created by the COVID-19 pandemic. As a result, scholars can analyse the leadership styles adopted by entrepreneurs throughout the global crisis as part of their larger research objective. The primary goal of this research is to examine the various leadership strategies used by entrepreneurs in this exceptional situation.

Through this exploration, the study aims to contribute to the existing knowledge and understanding of effective leadership practices during times of crisis. It plugs the gap in existing literature while responding to calls by previous research to study the impact of leadership in the context of traumatic events (Zada et al. 2022; Zhao et al. 2020). This analysis will assist organizations and decision-makers in choosing the most suitable leadership style to significantly boost innovation, thereby securing a competitive edge in the market. By thoroughly examining relevant literature, we gain insight into the extensive research that has been conducted in this area and identify any gaps or areas where further investigation is needed (Xiao & Watson 2017). This study's importance lies in its contribution to the current literature on entrepreneurial leadership amid crises, especially within the COVID-19 pandemic context. It enhances its worth by explicitly concentrating on the leadership styles used by entrepreneurs, which may diverge from standard company leadership techniques during this global crisis. This study highlights how entrepreneurs can adapt leadership styles to address pandemic challenges and seize opportunities for innovation and competitiveness.

LITERATURE REVIEW

CONCEPTUALIZATIONS OF CRISES AND THE ROLE OF ENTREPRENEURIAL LEADERSHIP IN TIMES OF CRISES

Crises are typically defined as incidents that catch leaders and stakeholders off guard, garner significant attention, and have the potential to cause major disruptions (Bacq et al. 2020). One key aspect that sets crises apart from other organizational occurrences is their element of surprise. They are often seen as uncommon and abnormal events for which organizations and leaders are ill-prepared and lack prior experience in handling (Mafimisebi et

al. 2023). Leaders must prepare organizations to handle crises effectively, whether rare events like pandemics or routine issues such as machinery breakdowns, by reducing occurrences and enhancing readiness.

Crises are seen as significant and pressing due to their potential to create substantial predicaments for organizations and attract considerable attention from individuals, thus distinguishing them from ordinary occurrences (Eaddy 2023). Detecting and interpreting crises is subjective, relying on socially constructed perceptions (Shipp & Jansen 2021). Crises, like the COVID-19 pandemic, can swiftly escalate if leaders fail to recognize and address their immediate risks, potentially jeopardizing organizational survival and stakeholder well-being. Despite their challenges, crises can serve as catalysts for positive transformation when managed adeptly. Effective crisis leadership encompasses preparation, response, and growth throughout the crisis lifecycle (Pinto et al. 2024).

This study's conceptualization aligns with Day and Antonakis's (2012) viewpoint on leadership, characterizing it as a goal-influencing and contextually grounded activity that takes place between a leader and followers, organizations, or institutions, official or informal. Our idea of crisis leadership also fits into a larger framework for crisis management, which tries to reduce the possibility of crises, lessen damage, and bring about order after a crisis (Bundy et al. 2017). However, entrepreneurial crisis leadership similarly emphasizes how crises affect entrepreneurs and how they, in turn, influence stakeholders' emotions, thoughts, and actions during crises (Ramli et al. 2023). It explores why certain entrepreneurs excel in crisis situations while others struggle. Entrepreneurial crisis leadership, unlike broader crisis management, focuses on the unique challenges and opportunities that entrepreneurs face during crises. It underscores their role in navigating uncertainty and capitalizing on emerging opportunities through rapid decision-making (Ramli et al. 2023).

Despite the crucial role of leadership during crises, research in this field has been disjointed and does not receive sufficient acknowledgment within the broader domain of leadership. Existing literature largely overlooks crisis leadership as a distinct domain, possibly due to difficulties in defining specific roles, behaviors, and characteristics associated with effective crisis leadership. While contextual theories of leadership may partially address crisis leadership, crises possess unique characteristics that set them apart. Therefore, this study proposes that entrepreneurial crisis leadership deserves greater attention within leadership research, aiming to stimulate further investigation into how leaders can effectively navigate and overcome crisis challenges.

METHODOLOGY

SOURCE OF DATABASE

Systematic Literature Reviews (SLR) are unique because they systematically analyze literature, making them a reliable way to provide an overview of a field (Sauer & Seuring 2023). This approach assesses the extent of literature coverage on a given topic and summarizes its focus. The researcher selected parameters from the start, such as publication year, document type, and language, to guide and limit the search for journal articles in databases. Systematic analysis is increasingly widely used in social science research. A well-organized searching strategy using a database can serve as a strong foundation for a study, as noted by Alessa and Durugbo (2021). Although no single electronic database is comprehensive, Zhu and Liu (2020) argue that combining at least two databases, such as Scopus and Web of Science, can be useful for academic research. As a result, this study makes use of two academic databases: Scopus and Web of Science (WOS). Many additional SLRs use both Scopus and WOS databases, such as those conducted by Akintunde et al. (2021).

PREFERRED REPORTING ITEMS FOR SYSTEMATIC REVIEW AND META-ANALYSIS (PRISMA)

To improve presentation, the systematic review (SLR) in this study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement, as illustrated in Figure 1. In total, 186 articles were retrieved from both databases. Following that, a scoping review was undertaken as part of the SLR to gather all necessary information from each piece of literature, including methodologies, variables, and analysis. The review aims to provide a complete summary of the field and an overview of achievements (Arksey & O'Malley 2005).

A SYSTEMATIC REVIEW PROCESS

Systematic reviews are used to offer a comprehensive and unbiased assessment of the literature by categorizing all publications that address a specific subject (Alexander 2020). According to Bruce (2008), systematic analysis improves the accessibility and reproducibility of the current knowledge framework. SLR is a clear and reproducible process that involves finding, evaluating the quality of literature, and objectively synthesizing it (Kraus et al. 2020). As a result, this study employs SLR to comprehensively gather clear literature on the topic. The SLR process, outlined in Figure 1, encompasses several defined steps by scholars (Kraus et al. 2020).
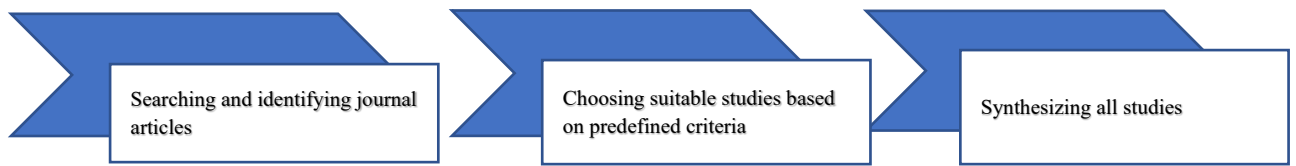
FIGURE 1. The systematic literature review process

The first step in the SLR process is to search and locate relevant journal articles. With many journals available in databases, a systematic examination is required to find relevant papers. The next stage involves selecting appropriate studies based on predetermined criteria that are consistent with the research objectives. In the last stage, all of the collected components and elements are merged to provide valuable study outputs, which is known as synthesis. A thorough review of primary research is required to answer previously stated questions and gather proof. Furthermore, to search for leadership publications in the given academic databases, numerous keywords were used: entrepreneur, business owner, business founder, leadership styles, leadership approaches, COVID-19, pandemic. The researcher specified criteria and constraints to steer the investigation from the beginning, as summarized in Table 1.

TABLE 1. The inclusion and exclusion criteria

Criterion	Eligibility	Exclusion
Literature types	Journal entries (research articles) and conference proceedings	Journal reviews, book series, books, chapters in books
Language	English	Non-English
Timeline	From 2020 to 2023	Prior to 2020
Subject areas	Business, Management and Accounting, Social Sciences, Economics, Econometrics and Finance	Computer Science, Decision Sciences, Engineering, Psychology, Energy, Nursing, Education, Politics

After scanning the databases, the researcher took three more steps to finish the process. The flow of the PRISMA statement, as described by Moher et al. (2009), facilitates in methodical searching. The steps involved—identification, screening, eligibility, and inclusion—are depicted in Figure 2. Initially, 93 records were sourced from both the Scopus and WOS databases. Subsequently, 118 records underwent screening, resulting in the exclusion of 68 records. These exclusions were primarily based on document types (such as conference proceedings and book chapters) and specific subject areas (notably nursing and politics). Figure 2 illustrates the literature selection process for identification and screening, which facilitates resource search, selection, and quality check.
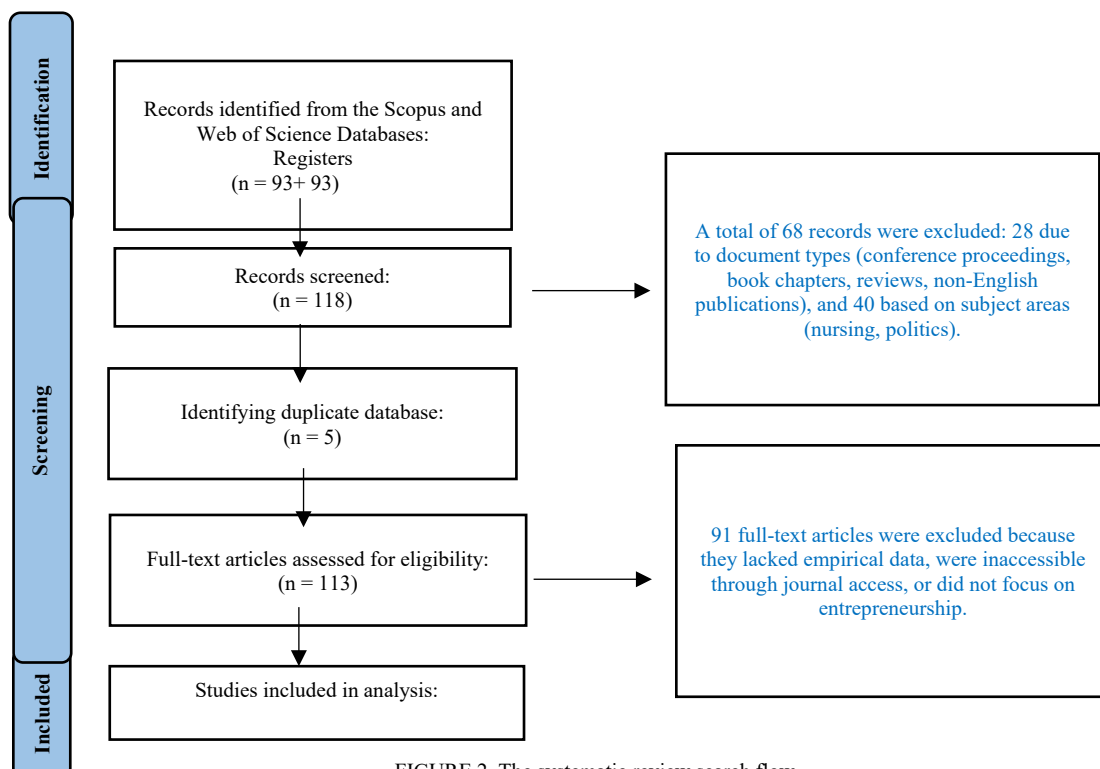

FIGURE 2. The systematic review search flow

Through an SLR search of the Scopus and WOS academic databases, 186 articles were initially selected. After excluding 68 articles that were irrelevant due to document types (such as conference proceedings, book chapters, reviews, and non-English publications) and subject areas (i.e., nursing, politics), along with five duplicates and 91 articles lacking empirical data or focusing on entrepreneur leadership, a total of 22 journal articles were included in the study.

REVIEW AND DISCUSSION

DESCRIPTIVE ANALYSIS IN THE SCOPUS DATABASE

During the initial phase of browsing the Scopus database for journal articles, 93 articles were identified using the specified keywords listed in Table 2. These keywords focused on entrepreneur, business owner, business founder, leadership styles, leadership methods, COVID-19, and pandemic. Publishing activity peaked in 2022, with 50 publications, compared to 19 in 2023 and 20 in 2021. This surge may reflect researchers' increased focus on observing post-COVID leadership styles. In contrast, 2020 saw minimal publishing activity, with only four publications. Overall, there has been a consistent upward trend in publications, rising from four in 2020 to 93 in 2023.

TABLE 2. Database search string

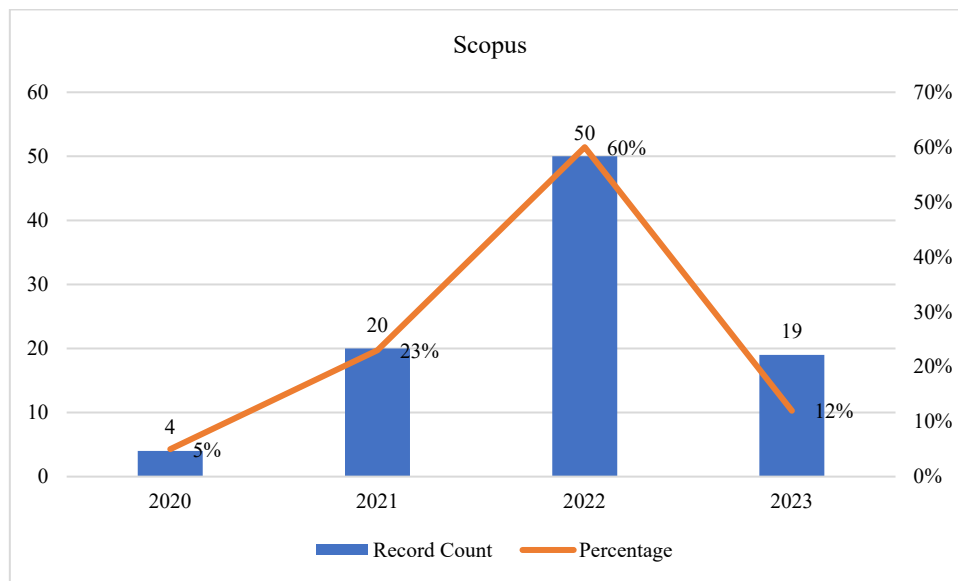| Database	Key words
Scopus	(TITLE-ABS-KEY ("leadership styles*" AND (COVID-19 OR pandemic))) OR (TITLE-ABS-KEY (entrepreneur AND leadership AND (styles OR method) AND (COVID-19 OR pandemic))) OR (TITLE-ABS-KEY ((entrepreneur OR business) AND (owner OR founder) AND leadership AND (styles OR method) AND (COVID-19 OR pandemic)

FIGURE 3. Number of articles in the Scopus database

DESCRIPTIVE ANALYSIS IN THE WEB OF SCIENCE DATABASE

Using keywords from Table 3, 93 journal articles were located in the WOS database during the initial round of exploration. These included COVID-19, pandemic, leadership techniques and styles, business founders and owners, and entrepreneur. 8 publications in 2020, 23 in 2021, 50 in 2022, and 12 in 2023 show a significant increase in publishing activity, indicating a rise in interest in this field in recent years. This implies that the subject is becoming more significant and that researchers are becoming more interested in it. Leadership practices have been profoundly affected by the pandemic. The rise in research publications on leadership style during the COVID-19 pandemic indicates that scholars are eager to learn about the ways in which leaders have responded to the pandemic and the lessons that can be applied to similar situations in the future.

TABLE 3. Database search string

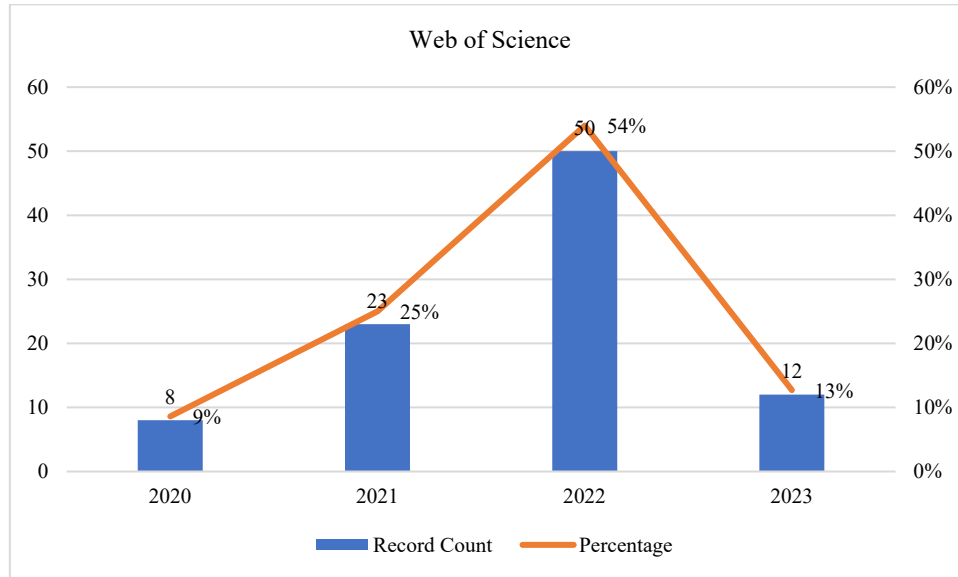| Database	Key words
Web of Science	ALL = (Entrepreneur OR business) AND (owner OR founder) AND leadership AND (styles OR method) AND (COVID-19 OR pandemic) (All Fields) OR Entrepreneur AND leadership AND (styles OR method) AND (COVID-19 OR pandemic) OR "leadership styles*"AND (COVID-19 OR pandemic) (All Fields)

FIGURE 3. Number of articles in the Web of Science database

ANALYSIS OF ARTICLES' CITATION NUMBERS

Citations are often used within research policy and frameworks to demonstrate the impact or influence of a study's findings, indicating achievement in the research community (Aksnes et al. 2019). The article under analysis presents the top five most highly cited articles in the WOS and Scopus databases, as shown in Tables 4 and 5.

In the Web of Science, the highest-cited article is by Zhao et al. (2020) with 51 citations, followed by Ahmed et al. (2020) with 36 citations. Ahmed et al. (2020) also have the most citations in Scopus, with 38, followed by Khan (2021) with 25. There are some articles that are present in both tables, such as Ahmed et al. (2020), Suriyankietkaew et al. (2022), and Mahdi and Nassar (2021). Ahmed et al. (2020) is the only article present in the top three cited articles in both tables, which indicates its high impact in the research community. Two articles are widely cited in both databases in terms of their similarity to other articles (Suriyankietkaew et al. 2022; Mahdi & Nassar 2021). The analysis in both tables emphasizes the importance of leadership practices and their implications across various aspects of the COVID-19 pandemic. High citation counts for certain articles highlight their substantial impact on research and their potential to guide future research directions and practical applications.

TABLE 4. Number of citations in the Web of Science Database

AUTHOR / YEAR	TITLE	NUMBER OF CITATIONS
(Zhao et al. 2020)	Caring for the caregiver during the COVID-19 outbreak: Does inclusive leadership improve psychological safety and curb psychological distress? A cross-sectional study	51
(Ahmed et al. 2020)	How and When Does Inclusive Leadership Curb Psychological Distress During a Crisis? Evidence From the COVID-19 Outbreak	36
(Suriyankietkaew et al. 2022)	Sustainable Leadership Practices and Competencies of SMEs for Sustainability and Resilience: A Community-Based Social Enterprise Study	13
(Suriyankietkaew et al. 2022)	The perceptions of SME retailers towards the usage of social media marketing amid the COVID-19 crisis	10
(Mahdi & Nassar 2021)	The Business Model of Sustainable Competitive Advantage through Strategic Leadership Capabilities and Knowledge Management Processes to Overcome the COVID-19 Pandemic	9

TABLE 5. Number of citations in the scopus database

AUTHOR / YEAR	TITLE	NUMBER OF CITATIONS
(Ahmed et al. 2020)	How and When Does Inclusive Leadership Curb Psychological Distress During a Crisis? Evidence From the COVID-19 Outbreak	38
(Khan 2021)	COVID-19's impact on higher education: A rapid review of early reactive literature	25
(Alsharif et al. 2021a)	Impact of entrepreneurial leadership and bricolage on job security and sustainable economic performance: An empirical study of Croatian companies during the COVID-19 pandemic	16
(Suriyankietkaew et al. 2022)	Sustainable Leadership Practices and Competencies of SMEs for Sustainability and Resilience: A Community-Based Social Enterprise Study	12
(Mahdi & Nassar 2021)	The Business Model of Sustainable Competitive Advantage through Strategic Leadership Capabilities and Knowledge Management Processes to Overcome the COVID-19 Pandemic	12

THEMATIC ANALYSIS

According to this study, the research setting refers to the location where the research is conducted. The distribution of studies by nation in the Scopus and WOS databases is shown in Table 6, which indicates that the United States carried out the most studies, with nine (9) in Scopus and seven (7) in the WOS, followed by Indonesia with seven (7) in Scopus and three (3) in the WOS, and China with six (6) in Scopus and seven (7) in the WOS. Australia and Malaysia each have five (5) studies in Scopus. In the WOS, Australia has two (2) studies, and Malaysia has four (4). Spain has five (5) studies in Scopus and three (3) in the WOS, while the United Kingdom has five (5) in Scopus and none in the WOS. India has four (4) studies in both Scopus and the WOS, while Saudi Arabia has four (4) in Scopus and two (2) in the WOS. Pakistan has three (3) Scopus studies and four (4) WOS studies, while Thailand has three (3) Scopus studies and two (2) WOS studies. Finally, Greece, Italy, Romania, and Turkey each have two (2) studies in Scopus, while Greece has none. Italy and Romania have one study each in the WOS. Overall, the table shows that the United States, Indonesia, and China have conducted extensive research on leadership practices and their impact during the COVID-19 pandemic. Interestingly, differences exist between the countries with the highest number of studies in Scopus and the WOS, indicating variations in database coverage and regional research practices.

TABLE 6. Top-15 number of studies based on country

Country	Database	
	SCOPUS	WOS
United States	9	7
Indonesia	7	3
China	6	7
Australia	5	2
Malaysia	5	4
Spain	5	3
United Kingdom	5	-
India	4	4
Saudi Arabia	4	2
Pakistan	3	4
Thailand	3	2
Greece	2	-
Italy	2	-
Romania	2	-
Turkey	2	1

METHODOLOGIES OF THE STUDIES

In every research study, the methodology involves analyzing, strategizing, and classifying information to process and interpret data related to the subject. This methodology assists researchers in clearly identifying the research problem and goals, as well as presenting conclusions derived from the data gathered over the duration of the study
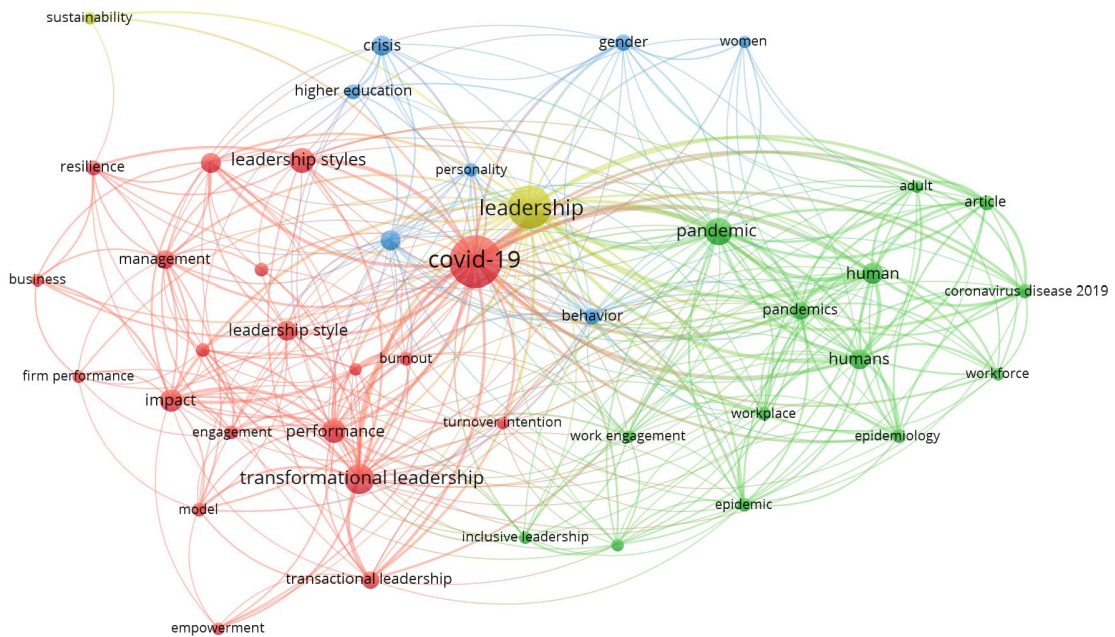
(Moser & Korstjens 2018). Quantitative research uses statistical analysis and numerical data to examine hypotheses or ideas, whereas qualitative research employs interpretations and notions to delve into detailed experiences or concepts.

The choice of research methodology is dependent on the research objective. Quantitative research typically aims to test or validate hypotheses and theories, while qualitative research focuses on understanding complex phenomena, attitudes, beliefs, and behaviors in depth. In summary, a research study's methodology plays a critical role in defining the course, recommendations, and interpretation of the data gathered. Which methodology to use depends on the goal of the study and whether quantitative or qualitative research methodologies are being used (Moser & Korstjens 2018).

TABLE 7. Methodologies of the studies

Data Base	Quantitative				Qualitative	
	Longitudinal	Multi-level	Survey	Case Study	Phenomenology	Mixed
Scopus			3		1	1
Web of Science	1	1	12	3		
Sub Total	1	1	15	3	1	1
Total		17			5	

TRENDING KEYWORDS, TOPICS, AND CO-OCCURRENCES

The examination of keywords used by authors in their research is a valuable tool for identifying popular topics in a specific field. Figure 4 depicts a word cloud of the most used keywords, with "leadership" being the most prominent keyword. Other related leadership styles and concepts also feature prominently. In addition to the word cloud, the researchers also investigated the co-occurrence of keywords in their network. Figure 5 provides an explanation of how various keywords are connected in this network. This shows the connections between various keywords and provides intriguing combinations, like the total link strength for each keyword, which represents the combined strength of all the links that are connected to that keyword. COVID-19 is by far the most frequently occurring keyword, with 89 instances in the data set. Leadership and its related terms (transformational leadership and transactional leadership) are also highly represented in the data set, with a total of 103 occurrences. The COVID-19 situation relates to crises and crisis management, making these topics highly relevant. Engagement and innovation are linked to management and leadership, indicating their significance for organizational success.

FIGURE 4. A visualized word cloud of frequent keywords

FIGURE 5. Co-occurrence network of keywords

ANALYSIS OF THE FIELDS OF STUDY ON LEADERSHIP STYLES IN COVID-19

Organizations focus not just on improving existing processes and offers, but also on recognizing potential for enhancements that strengthen and preserve their market position (Scheepers & Storm 2019). Leadership significantly influences organizational innovation and determines the level of support for innovation initiatives. Studies have explored these dynamics across various sectors: one in private education (Zahari et al. 2022), two in business associations (Benjathikul 2021; Visser & Scheepers 2022a), nine in the business sector, five in tourism and hospitality, two in the information technology sector (Ahmad et al. 2022a; Liu et al. 2022), one study in the pharmaceuticals sector (Angelis & Polychronidou 2022), one study in the engineering/construction sector (Tvedt et al. 2022), and one study in the media/entertainment sector (Blas et al. 2022).
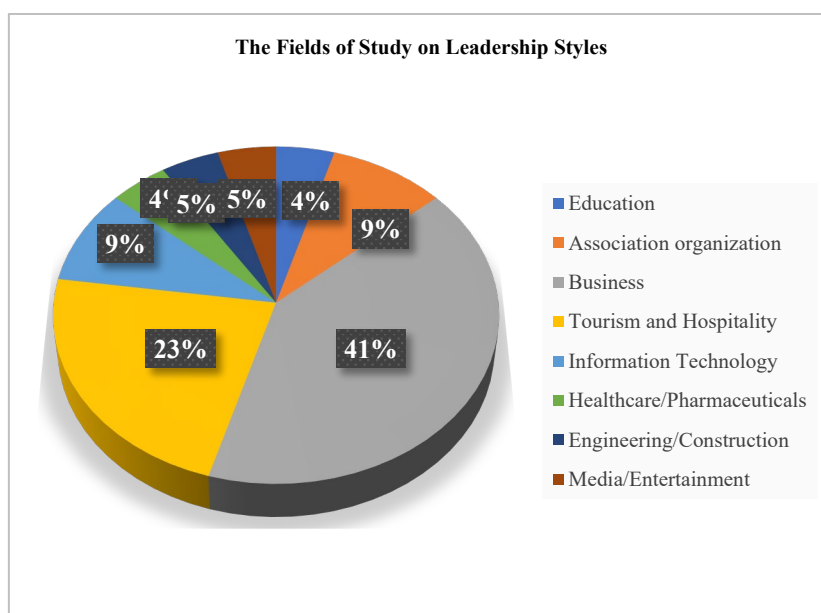
FIGURE 6. The fields of study on leadership styles

Underpinning theories are theoretical frameworks used in research to understand social significance. These theories were developed to explain how society functions and the reasons behind these dynamics. As stated by Scheiner and Mindell (2020), these theories aim to answer the questions of "how" and "why" regarding the functioning of society. According to Figure 7, the most frequently cited underpinning theory is transformational leadership theory, which is mentioned four times. Dynamic capabilities theory, contingency theory, social cognitive theory, cultural tightness-looseness theory, organizational theory, entrepreneurial theory, acceptance theory, social exchange theory, situational leadership theory, transactional leadership theory, organizational cognition and learning, laissez-faire/liberal leadership theory, sustainability leadership theory, dialogic communication theory, attribution theory, and communicative action theory are each mentioned once. The most frequently cited leadership theory is transformational leadership theory, followed by transactional leadership theory. There is a mix of theories from different disciplines, including psychology, management, organizational behavior, cross-cultural psychology, and communication. The theories cover a range of topics, including leadership, organizational behavior, cross-cultural communication, and public relations.
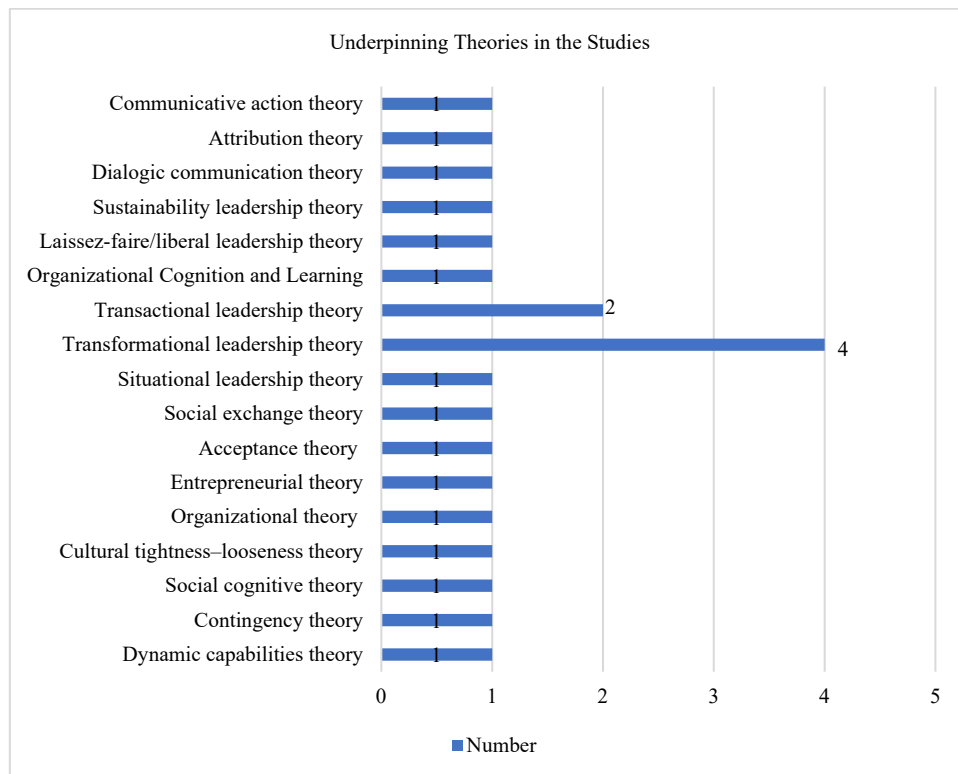

FIGURE 7. Underpinning theories in the studies

Transformational leadership (TL) encompasses visionary, inspiring, risk-taking, and thoughtful qualities (Żywiołek et al. 2022) and involves a reciprocal relationship between leaders and followers (Purnomo et al. 2021). Fowler and Robbins (2022) suggest that, during a crisis, the structured form of transactional leadership may impede problem solving and innovation. In entrepreneurship, transformational leaders foster innovation and creativity, while transactional leaders provide stability, highlighting the need for a balance between both styles for success.

(a) These theories signify leadership styles with profound influence, drawing followers through internal recognition, belief, and respect. (b) Leaders lead by example, embodying directions and fostering understanding rather than dictating tasks, thereby illuminating the objectives through demonstration (Ahmad et al. 2022b). (c) Emphasizing empowerment and trust in followers' abilities, leaders provide clear guidance without imposing narrow managerial perspectives (Song et al. 2023). (d) Representing a contemporary leadership paradigm, these styles prioritize innovation culture and unconventional practices, aligning with entrepreneurs' roles as market catalysts, ensuring growth and survival for micro and small businesses amid uncertainty (Muafi & Johan 2022).

In this review, several leadership styles have been analyzed and categorized based on their occurrence in the literature. Figure 8 depicts the most frequently mentioned leadership style, transformational leadership, which appears six times in the review. Transformational leaders inspire and motivate their followers to attain a common goal while also enhancing their abilities and potential (Ahmad et al. 2022c). Transactional leadership, which appears twice in the evaluation, has a clear chain of command, with leaders rewarding and punishing followers based on their performance (Visser & Scheepers 2022c). Democratic leadership, sustainable leadership, and virtual leadership are also mentioned multiple times in the review. Democratic leaders involve their followers in decision-making processes (Angelis & Polychronidou 2022), while sustainable leaders consider the environmental, social, and economic impact of their decisions (Cahyadi et al. 2022). Virtual leaders manage remote teams and utilize technology to communicate and collaborate effectively (Hutajulu et al. 2021). A variety of leadership philosophies are covered in the review, including situational leadership, organic leadership, self-leadership, open leadership, entrepreneurial leadership, participatory leadership, diversity-oriented leadership, liberal/laissez-faire leadership, and strategic leadership. Every style has unique characteristics and works well in a range of settings and situations.

As a result, the review revealed that the transformational leadership style was commonly used during the pandemic. Burns (1979) saw transformational leadership, together with transactional theory, as a technique to inspire followers to go beyond their apparent limitations. According to Northouse (2012), transformational leaders are acknowledged as changemakers, which is critical for providing assistance to stakeholders during crises. The concept of transformational leadership, which is widely recognized, can be traced back to the necessity of encouraging and inspiring people to overcome obstacles and strive towards a common goal. In times of crises, transformative leaders are especially important for guiding their people and helping them reach their full potential (Megheirkouni & Mejheirkouni 2020).
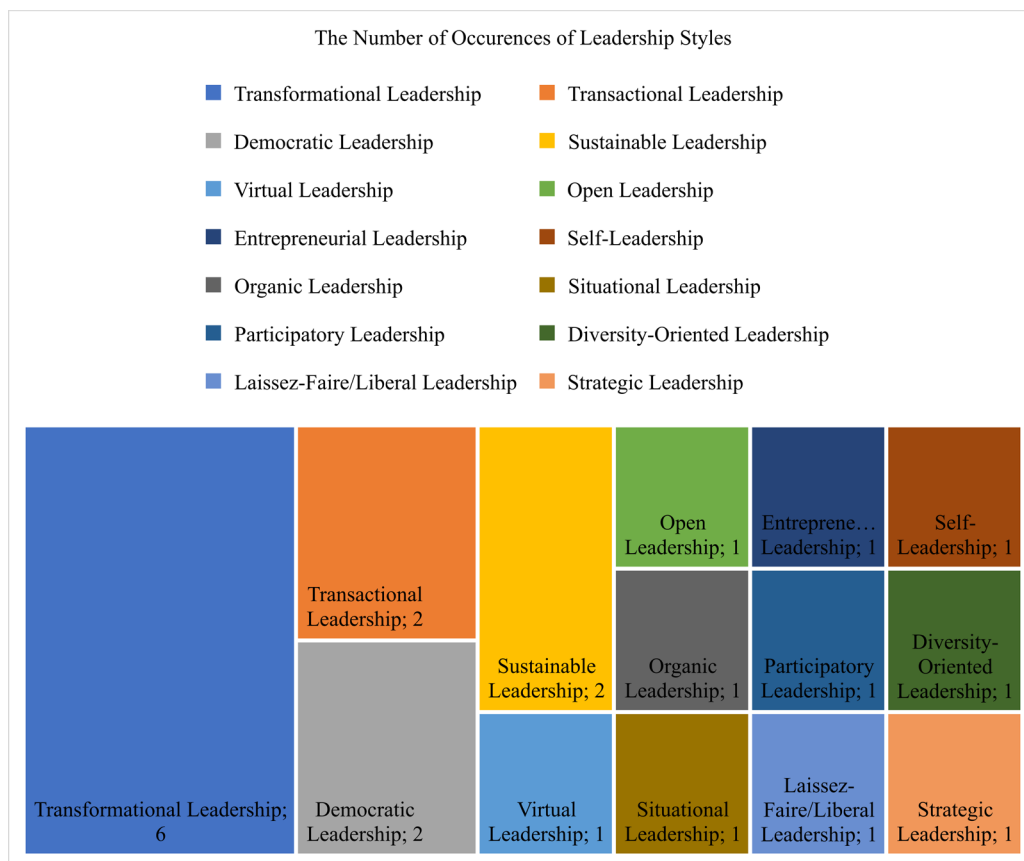

FIGURE 8. The number of occurrences of leadership styles

DISCUSSION

Transactional Leadership (TL) is identified as the most active and effective leadership style according to the Full-Range Leadership Theory (Żywiołek et al. 2022). It is extensively studied for its correlation with leadership effectiveness during crises (Sommer et al. 2016). Groves (2020) implies that the capacity of TL to change

followers' perspectives and promote alignment with the leader's objectives and beliefs accounts for much of its effectiveness in crisis situations. Entrepreneurship plays a vital role in both national and global economies. Key concerns in entrepreneurship research persist in areas such as identifying opportunities, fostering innovation, and embracing risk-taking, echoing traditional views portraying entrepreneurs as risk-takers, creators (Thurik et al. 2023), or agents addressing economic imbalances (Kirzner 1973). Entrepreneurial leadership (EL), a concept often advocated for dynamic and turbulent environments (Alsharif et al. 2021b) places emphasis on the entrepreneur as a natural leader. Applying EL principles to leadership is an ideal way to demonstrate effective leadership in the turbulent post-COVID-19 age, where recovery is important for entrepreneurs.

Both TL and EL share a strong correlation, indicating that they often intermingle in the study of entrepreneurship, with TL frequently used to measure EL due to their conceptual similarities. The questionnaires used to assess EL have significant overlap with those used for TL (Ahmad et al. 2022d; Alsharif et al. 2021c; Visser & Scheepers 2022d), especially in items measuring interpersonal leadership, which suggests that the two leadership styles share common ground in focusing on influencing others towards shared goals. EL is an evolving field of study that lacks a universally accepted definition. TL and EL frequently intersect in entrepreneurship research (Reid et al. 2018). Recent reviews, like those by Clark and Harrison (2019) and Haim Faridian (2023), aim to achieve clarity with admirable depth and acuity, but some questions remain unresolved. Despite some conceptual divergence, the practical application in research often treats TL and EL synonymously, with many researchers using TL as a default measure for EL, highlighting the intertwined nature of these leadership constructs (Ravet-Brown et al. 2023).

LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS

The study's SLR sought to ascertain the specific leadership style applied by entrepreneurs during COVID-19, using WOS and Scopus as the primary sources of information. However, limitations are inherent to all research, and to address these, future studies could explore more databases and other dimensions of leadership styles. For instance, research could investigate how cultural factors impact leadership styles across different regions and countries, how leadership styles influence organizational resilience and sustainability, how they affect decision-making processes and outcomes, and how demographic variables like gender and age shape leadership styles and their effectiveness.

Among the 22 studies reviewed, the majority adopted quantitative approaches, yet these studies lacked depth in their analysis. In contrast, qualitative studies offer flexibility and adaptive capabilities that counterbalance the rigidity of quantitative methods, enabling a more thorough examination of research subjects (Flick 2018). While this review identified a few qualitative studies, future researchers are encouraged to incorporate them to enrich theoretical aspects and discussions within the methodology of entrepreneurial leadership styles. Scholars with an interest in leadership can investigate a range of subjects, including how cultural contexts affect leadership styles in various geographical areas, how leadership styles affect organizational resilience and sustainability, how leadership styles affect the processes and results of decision-making, and how demographic factors like age and gender shape leadership styles and their efficacy.

Future research must focus on developing a specific definition that distinguishes between entrepreneurial leadership "in" companies and entrepreneurial leadership "of" businesses in order to obtain a greater knowledge of how entrepreneurial leadership functions in many circumstances. Researchers are encouraged to develop a specific and clear model for EL that can show how it is different from other types of leadership, like TL, by using new ways to measure EL that are not just based on TL. It would be helpful to explore EL in various cultural and geographical settings to see if the concepts of EL and TL apply differently across different regions and cultures, as current studies suggest their overlap might not be universally applicable.

CONCLUSION

The objective of this Systematic Literature Review (SLR) was to identify and analyze various leadership styles that emerge during crises. The review examined existing literature on leadership styles, encompassing both quantitative and qualitative studies for a thorough analysis. The findings highlight several leadership styles prominent during crises, including authentic, transformational, transactional, responsible, and inclusive leadership styles. The review underlines that the best appropriate leadership style is greatly dependent on the specific situation. Furthermore, it emphasizes the importance of future research into other aspects of leadership, such as the influence of culture, demographics, and organizational decision-making on leadership effectiveness. While quantitative research ensures objectivity and broad applicability, qualitative research is recommended for nuanced insights. This study suggests that a compassionate managerial approach could be particularly effective in responding to the pandemic. This research study addresses a previously underexplored area in the literature, meeting the demand for further research on leadership impacts during traumatic situations (Zada et al. 2022; Zhao et al. 2020). Finally, this review provides valuable insights into the leadership styles used by entrepreneurs during

the COVID-19 pandemic, assisting organizations and decision-makers in determining the most appropriate leadership style to stimulate innovation and maintain market competitiveness.

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