Emotional Intelligence and Leadership in Construction: A Systematic Review and Bibliometric Exploration

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ABSTRACT

This study conducts a Systematic Literature Review (SLR) complemented by bibliometric analysis to examine the landscape of emotional intelligence and leadership in construction, particularly within the context of construction organizations. The review examines five primary themes: personal competencies, relational competencies, organizational climate, leadership experience, and training & development as critical contributors to emotionally intelligent leadership. The findings, based on 78 peer-reviewed articles sourced from Scopus, Web of Science & Science Direct databases, reveal that although research remains limited, its relevance continues to grow across various disciplines and regions. The United States, Australia, and the United Kingdom lead in publication volume, while Malaysia emerges as an active contributor in Southeast Asia. Through bibliometric tools like VOSviewer, key concepts such as personal competencies, relational competencies, organizational competencies, leadership experiences, and training& development were identified as pivotal in emotional intelligence and leadership discourse. This study not only highlights the multidimensional nature of emotional intelligence but also maps its theoretical development and practical implications, emphasizing the need for sustained inquiry, leadership development programs, and sector-specific strategies, particularly in high-stakes industries such as construction.

Keywords: Emotional Intelligence, Leadership, Construction

INTRODUCTION

Conducting a Systematic Literature Review (SLR) on Emotional Intelligence (EI) and leadership is critically important in the present context, given the increasing complexity of organizational dynamics and the growing necessity for emotionally intelligent leadership, particularly within high-stakes and rapidly evolving sectors such as the construction industry [17], [30], [44]. A systematic approach enables researchers to objectively synthesize existing knowledge, minimize bias, and identify gaps across a broad range of empirical studies, thereby ensuring academic rigor and transparency in the investigation of EI in leadership roles [89], [97], [120].

This is particularly critical because EI is multidimensional, encompassing self-awareness, self-regulation, motivation, empathy, and social skills, which are the factors intricately linked to effective leadership performance across diverse cultural and organizational settings [83], [111]. Existing literature shows varied results regarding the impact of EI on leadership outcomes such as team performance, job satisfaction, and organizational citizenship behaviour, necessitating an SLR to resolve conflicting findings and provide integrated insights [22], [46], [129]. The increasing adoption of transformational and servant leadership models, which emphasize emotional alignment and relational competence, further underscores the need to

revisit and consolidate existing EI leadership research through a structured review [12], [82], [133]. Moreover, a comprehensive SLR enables scholars to trace the evolution of theoretical frameworks, assess methodological strengths and weaknesses, and evaluate the cross-cultural applicability of EI leadership models, especially in non-Western settings like Malaysia and the Middle East [33], [80], [110]. Given the post-pandemic shift toward remote work, digital leadership, and mental well-being, understanding the role of emotionally intelligent leadership is not only timely but crucial for sustaining workforce engagement and resilience [7], [25], [92].

This study examines the current state of leadership and emotional intelligence in construction research and assesses the continued relevance of this topic as a research area. In order to determine how this work can aid in the creation of an effective organisation, this study also examines the development of scholarly discourse on emotional intelligence and leadership. The following are the research questions:

RQ1: Does exploration of emotional intelligence and leadership continue to hold relevance for future scholarly research?

RQ2: What is the distribution of research studies focused on emotional intelligence and leadership in construction?

RQ3: What are the theoretical and practical implications from the perspective of future research?

This study employs a Systematic Literature Review (SLR) and a Bibliometric Analysis to address the three research questions. An SLR supports evidence-based policymaking and training programs, as organizations increasingly seek to embed EI competencies in leadership development initiatives for improved interpersonal dynamics and strategic outcomes [18], [30], [109]. Additionally, identifying research gaps such as gender differences, sector-specific challenges, and generational perspectives on EI leadership capabilities will contribute to a more inclusive and context-sensitive body of knowledge [60], [82], [132]. Conducting an SLR on EI leadership capabilities offers a systematic, replicable foundation for advancing theory and directing future empirical research [16], [120], [124]. Meanwhile, the bibliometric analysis will complement the review by quantifying the distribution and impact of publications related to emotional intelligence and leadership in the construction industry. Using VOSviewer and the Scopus, Web of Science & Science Direct databases, this study will analyse articles published up until September 13, 2025. This methodology enables a comprehensive mapping of the field's development and provides a deeper understanding of its growth and future research directions.

LITERATURE REVIEW

Emotional Intelligence

Emotional Intelligence (EI) has emerged as a pivotal construct across various disciplines, including psychology, education, and organizational leadership, reflecting an individual's ability to recognize, manage, and influence their own and others' emotional states. One of the earliest formal definitions of Emotional Intelligence (EI) was introduced by [111], describing it as a component of social intelligence that entails the capacity to recognize, differentiate, and manage one's own emotions as well as those of others, using this emotional information to inform thought processes and behavior. Their ability model emphasized the cognitive processing of emotional information, marking the beginning of EI as a structured psychological theory. Goleman (1995) later expanded and popularized the concept by defining EI as a set of competencies that include self-awareness, self-regulation, motivation, empathy, and social skills, arguing that these are critical for leadership and success in professional environments [43]. His mixed model introduced EI into the realms of business and human resource development, thus gaining widespread acceptance beyond academic circles [26], [44].

Bar-On (1997) [11] made a notable contribution to the conceptualization of Emotional Intelligence (EI) by defining it as a broad set of emotional and social competencies that influence how individuals perceive and articulate their emotions, interact with others, and manage everyday challenges. The framework evaluated

through the Emotional Quotient Inventory (EQ-i) offered a more holistic perspective on EI, encompassing elements such as stress management, interpersonal skills, and overall emotional well-being [9].In the context of workplace and leadership effectiveness, Wong and Law (2002) developed a four-dimensional EI model—comprising self-emotion appraisal, others' emotion appraisal, use of emotion, and regulation of emotion—tailored specifically for organizational research [134]. They defined EI as the ability to perceive, understand, and regulate emotions to enhance interpersonal relationships and job performance, highlighting its relevance in high-stress environments such as construction and project management [58].

In contrast to these ability-based and mixed models, Petrides and Furnham (2001) proposed a trait EI model, which defines EI as a constellation of emotional self-perceptions embedded within the framework of personality [92]. Trait EI is measured through self-report tools, emphasizing behavioral dispositions and self-beliefs regarding one's emotional functioning [99]. This model is particularly useful in explaining long-term behavioral tendencies and workplace adaptability. Further refining the original ability model, Mayer, Salovey, and Caruso (2004) presented a four-branch model that delineates EI into perceiving emotions, using emotions to facilitate thinking, understanding emotional meanings, and managing emotions for growth and well-being [84]. This model treats EI as a measurable and objective cognitive ability, distinct from personality traits or social skills.

Collectively, these varying definitions and models illustrate the multifaceted nature of Emotional Intelligence. While distinctions exist between ability, trait, and mixed models, all perspectives converge on the understanding that EI is critical for effective leadership, teamwork, and personal development. Particularly in emotionally demanding industries such as construction, healthcare, and education, the ability to navigate emotional complexity is increasingly recognized as a core leadership capability [30], [39]. Thus, understanding and applying the appropriate EI framework is essential for both theoretical development and practical implementation in contemporary organizational contexts.

Table I Definition of Emotional Intelligence

Representative figure	Definition
Salovey and Mayer (1990)	EI is the ability to monitor, discriminate, and use emotions to guide thinking and behavior—viewed as a subset of social intelligence.
Goleman (1995)	EI involves recognizing, managing, and motivating emotions in oneself and others, with emphasis on leadership and interpersonal success.
Bar on (1997)	EI comprises non-cognitive skills and competencies that help individuals cope with environmental challenges and pressures.
Wong and Law (2002)	EI is the ability to perceive and regulate emotions in oneself and others to improve interpersonal relationships, especially in work settings.
Petrides and Furnham (2001)	Trait EI is a set of emotional self-perceptions linked to personality, measured via self-report rather than cognitive performance.
Mayer, Salovey, and Caruso (2004)	EI consists of four core abilities: perceiving, using, understanding, and managing emotions for personal and social growth.

Leadership

Leadership is widely recognized as a complex and dynamic phenomenon that plays a pivotal role in shaping organizational success and human impact. At its core, leadership is often described as the intentional process of guiding, structuring, and facilitating the efforts of others toward achieving collective goals [138]. Leadership involves not only directing individuals but also inspiring and motivating them to achieve shared objectives through purposeful vision, strategic communication, and collaborative action [34]. True leadership is therefore not limited to formal authority or hierarchical position but is equally about cultivating ethical integrity, fostering trust, and demonstrating emotional intelligence and adaptability [44].

Understandings of leadership have shifted considerably over time. Early thinking focused on trait-based theories, which suggested that leaders are born with innate characteristics such as intelligence, charisma, and confidence [116]. Over time, this view was challenged by behavioral perspectives, which examined leadership

in terms of observable actions and styles, such as autocratic, democratic, and laissez-faire approaches [101]. Later, contingency and situational theories argued that leadership effectiveness depends less on a single style and more on the fit between the leader, the task, and the environment [42], [96]. More recent scholarship has shifted toward cognitive and relational approaches, emphasizing the interactions between leaders and followers, including how perceptions, expectations, and biases shape the leadership process [50].

Several theoretical frameworks have emerged to explain leadership from various lenses. For instance, the transformational leadership model, one of the most researched and applied theories today, emphasizes the ability of leaders to inspire and elevate followers beyond their immediate self-interests through vision, idealized influence, intellectual stimulation, and individualized consideration [48]. In contrast, servant leadership prioritizes the needs of followers, promoting empowerment, trust, empathy, and stewardship [11]. The situational leadership model emphasizes the importance of adapting leadership styles according to follower readiness, maturity, and task complexity [78]. The Leader-Member Exchange (LMX) theory highlights the quality of relationships between leaders and individual followers, suggesting that strong dyadic exchanges foster higher organizational commitment and performance [138].

Emerging meta-frameworks also seek to unify these perspectives. The Leadership Canvas, proposed by Bagchi and Sharma (2025), presents a two-dimensional meta-theoretical structure in which foundational competencies, such as traits and behaviors, support higher-order constructs like ethical and transformational leadership [10]. Similarly, the Leadership Learning Framework (LLF) emphasizes the contextual and cultural dimensions of leadership, proposing that leadership knowledge must be integrated with the complexity of organizational systems and the need for decolonized, inclusive thinking [86]. These frameworks underscore the multidimensional and systemic nature of leadership, aligning it with learning, adaptability, and socio-cultural awareness.

Moreover, leadership paradigms such as the master-slave, server-client, and followers-members reflect the shifting dynamics of leadership power structures and influence [14]. These paradigms suggest that communication patterns and leadership relationships vary across contexts, and leaders must understand these models to engage stakeholders effectively. The transactional leadership style, which relies on reward and punishment to drive performance, is still relevant for achieving short-term and task-oriented goals, especially in high-pressure environments like healthcare, but it is often criticized for lacking transformational impact and long-term value [105], [96].

Despite decades of theoretical advancements, leadership studies face ongoing challenges. Scholars have highlighted the ambiguity of definitions, inconsistency in measurement tools, and challenges in isolating leadership effects from contextual influences [107]. Future research directions call for integrative models that combine trait, behavioural, relational, and cultural dimensions into unified systems capable of addressing the complexities of contemporary leadership [71]. Additionally, bibliometric reviews suggest that transformational leadership remains the most influential model in current literature, underscoring the need to continue exploring how different leadership theories converge and diverge across disciplines and sectors [123], [125].

In conclusion, leadership is a dynamic and multifaceted process that has evolved in tandem with shifts in theory, culture, and practice. Its essence lies not only in influence or authority but also in vision, ethical responsibility, adaptability, and relational intelligence. The trajectory of leadership research reflects a broadening of scope, from a focus on traits and behaviors to systemic and cultural perspectives. The growing body of leadership research provides rich yet complex insights that are essential for effective leadership in today's interconnected and volatile world.

Emotional Intelligence and Leadership in Construction

The relationship between emotional intelligence (EI) and leadership within the construction industry is increasingly recognized as a significant factor contributing to project success, team performance, and leadership effectiveness. Emotional intelligence is positively correlated with effective leadership, particularly under the complex and rapidly evolving environment of Construction 4.0, where both human and technological dimensions must be managed concurrently [68]. Leaders with high EI tend to exhibit transformational

leadership behaviors, which include motivating teams, fostering cohesion, and driving innovation, as the traits are especially critical in project-based and dynamic construction settings [19], [102]. Key components of EI, such as self-awareness, interpersonal skills, empathy, and relationship management, enhance a leader's ability to communicate effectively, resolve conflicts constructively, and create a supportive and collaborative work environment [48], [116]. These abilities not only improve team harmony but also foster trust and engagement among team members.

Moreover, project managers with strong emotional intelligence are more adept at handling disputes using accommodating or collaborative conflict resolution strategies, promoting win-win outcomes, and maintaining team morale [18]. Team effectiveness is notably influenced by emotionally intelligent leadership, with team cohesion acting as a mediating variable and project duration as a moderating factor in indicating that EI is especially valuable in long-term projects where team dynamics evolve [137]. From a performance standpoint, studies have demonstrated that the strategic application of EI by construction project leaders can improve project outcomes by as much as 50.7%, underlining its substantial contribution to organizational performance [3]. Despite these benefits, the integration of EI into leadership practices in construction faces several barriers. Challenges such as resistance to change, lack of awareness, and insufficient education on emotional intelligence impede the full realization of its benefits [93]. Notably, construction students as future industry leaders tend to exhibit lower levels of EI compared to peers in other fields, suggesting an urgent need to incorporate EI development into construction education and professional training programs [91].

Training and development initiatives aimed at enhancing EI competencies can significantly strengthen leadership capability across all project levels. Recommendations include revising curricula, providing mentoring and secondment opportunities, and improving recruitment practices to identify individuals with high EI potential [57].

In conclusion, emotional intelligence is an indispensable element of effective leadership in the construction industry. It supports transformational leadership, improves communication and conflict resolution, enhances team cohesion and project outcomes, and prepares leaders to meet the demands of increasingly complex construction environments.

METHODOLOGY

A systematic literature review utilizing a bibliometric method offers a quantitative means of evaluating existing publications to identify prevailing trends, patterns, and major contributors within a specific academic domain. Guided by structured protocols such as the PRISMA framework, this method promotes thoroughness and reproducibility, ensuring a transparent and detailed exploration of the subject matter [45]. The criteria for inclusion in this review were as follows: (1) studies published up to September 13, 2025, (2) publications written in English, and (3) a thematic focus on emotional intelligence and leadership in construction. Bibliometric analysis was conducted using VOSviewer, which enabled the visualization of bibliographic data to assess citation relationships, collaborative networks among authors, and frequently co-occurring keywords. This analysis highlighted the underlying intellectual structure and dynamic evolution of the research area. By merging bibliometric techniques with systematic review strategies, the study not only synthesizes empirical evidence but also charts the progression of scholarly activity, pinpointing influential researchers and emerging areas of inquiry [79]. This integrated approach is particularly valuable in interdisciplinary research, offering a holistic perspective on the field's development and potential future directions [63], [79].

The initial stage of this academic inquiry involves the careful selection of keywords, typically approached using a macro (top-down) methodology that begins with broad search themes and gradually narrows to more specific areas of study. In light of the identified gaps in previous literature and the limited focus on emotional intelligence and leadership in construction, this study adopts the keyword "Emotional Intelligence Leadership in construction" for targeted use in the article's title, abstract, and keyword sections. Additionally, the Scopus, Web of Science & Science Direct databases are utilized due to their wide applicability in academic research, including conducting literature reviews, identifying leading experts in the field, and tracking the evolution of research trends.
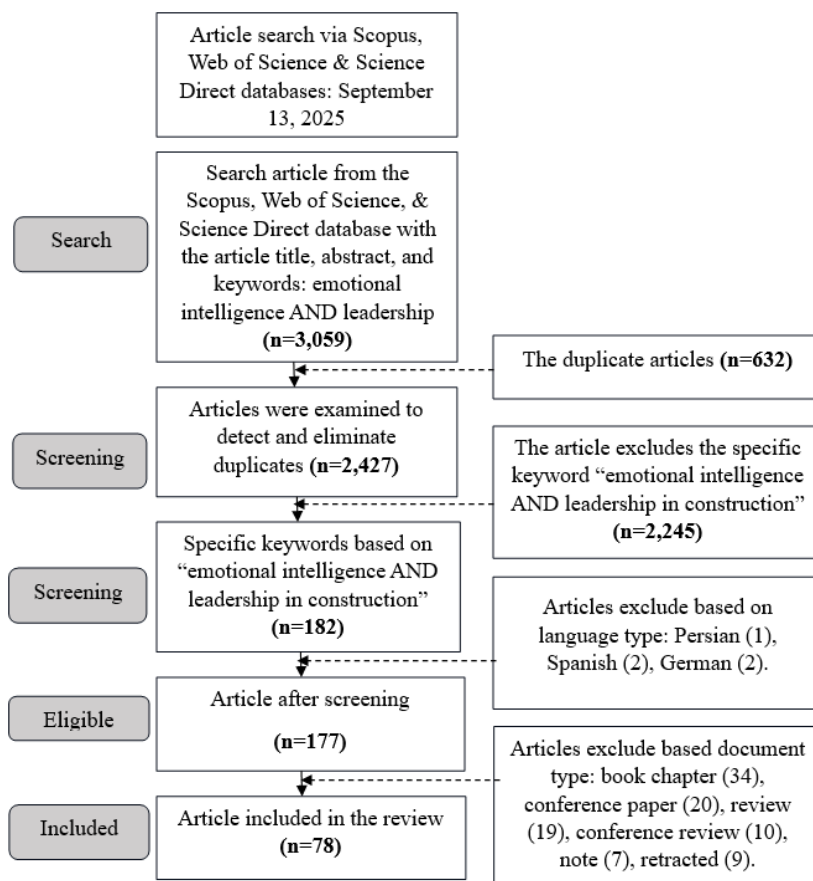
Fig. 1 Systematic Literature Review (SLR) information flow using PRISMA

According to the search outcomes retrieved on September 13, 2025, from the Scopus, Web of Science & Science Direct databases utilizing the article title, abstract, and keywords: "Emotional Intelligence AND Leadership" across diverse academic disciplines, spanning from earliest publication in 2003 to the most recent in 2025, the total number of articles about Emotional Intelligence AND Leadership is 3,059 documents (refer to Fig. 1). Following these findings, a screening process filters documents according to their classification. The duplicate articles are eliminated up to 632 articles, and the remaining 2,427 articles. Next, articles are eliminated based on the document type: book chapter (34), conference paper (20), review (19), conference review (10), note (7), retracted (9), and non-English (5), culminating in a total of 104 documents. The screening results, categorized by document types, yielded 78 articles. This document is then further analysed in this study to answer *RQ1: Does exploration of emotional intelligence and leadership in construction continue to hold relevance for future scholarly research? RQ2: What is the distribution of research studies focused on emotional intelligence and leadership? RQ3: What are the theoretical and practical implications from the perspective of future research?*

RESULT AND DISCUSSION

The results of this study focus on findings from 78 articles in the Scopus, Web of Science, and Science Direct databases on emotional intelligence and leadership in construction. These data are sourced from identifying the number of articles published, publications throughout the years, and journal sources. This study will also highlight the most influential elements in EI in construction, including the authors, affiliation, and the countries involved.

RQ1: Does exploration of emotional intelligence and leadership in construction continue to hold relevance for future scholarly research?

According to the data retrieved from Scopus, Web of Science, and Science Direct databases, it has been ascertained that over four decades, scholarly work about emotional intelligence and leadership capability comprises 78 articles. This suggests that investigations remain comparatively scarce, as illustrated in Fig. 2. The exploration has commenced its progressive development during the last decades, specifically from 2011.

The inaugural study was executed by Bagshaw, M. (2003) [9] and was entitled "Emotional intelligence using brainpower you never knew you had", which signified the advent research on emotional intelligence and leadership in construction has begun to captivate a substantial number of scholars, concentrating on the enhancement of organizational value, organizational culture, employee performance, job satisfaction, work motivations, and work engagement [29], [96].
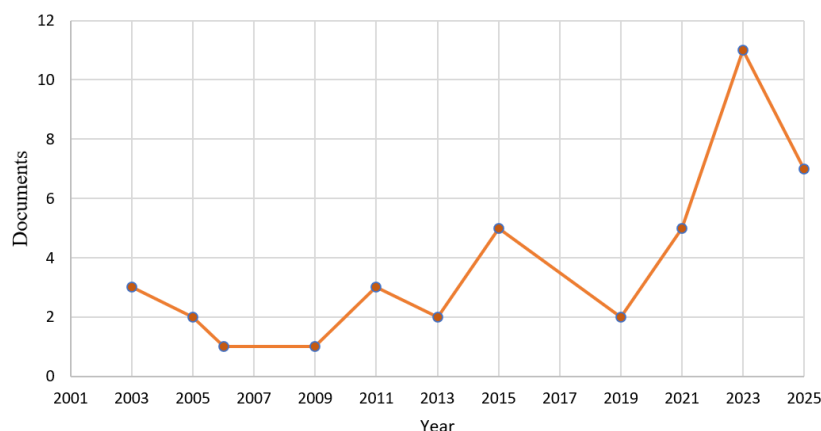

Fig. 2 Number of Emotional Intelligence and Leadership publications

Since 2003, there has been limited literature on emotional intelligence and leadership in construction due to lack of research published in reputable journals, creating an opportunity for future researchers to fill this gap. This research is significant for advancing insights into emotional intelligence and leadership, affecting both personal conduct and the evolution of the Emotional Intelligence and Leadership framework. This study perhaps facilitates a more profound comprehension of emotional intelligence and leadership in construction practical and sustainable application in construction sectors.

RQ2: What is the distribution of research studies focused on emotional intelligence and leadership?

This analysis of the distribution of the research in the 78 articles was executed by categorizing the articles according to classifications such as nation, region, affiliation, source, and author, with a constraint of solely the top 10 articles in each classification. Arguments regarding the allocation of scholarship pertinent to Emotional Intelligence and Leadership will be advantageous for scholars and practitioners in elucidating the forthcoming research agenda, particularly in the sustainable advancement of emotional intelligence and leadership in the construction paradigm.

First, the allocation of scholarly inquiry pertinent to emotional intelligence and leadership in construction, categorized by nation or geographical area, is dominated by the United States with 23 articles, Australia with 11 articles, the United Kingdom with 10 articles, India with 7 articles, and China with 5 articles (see Fig. 3).
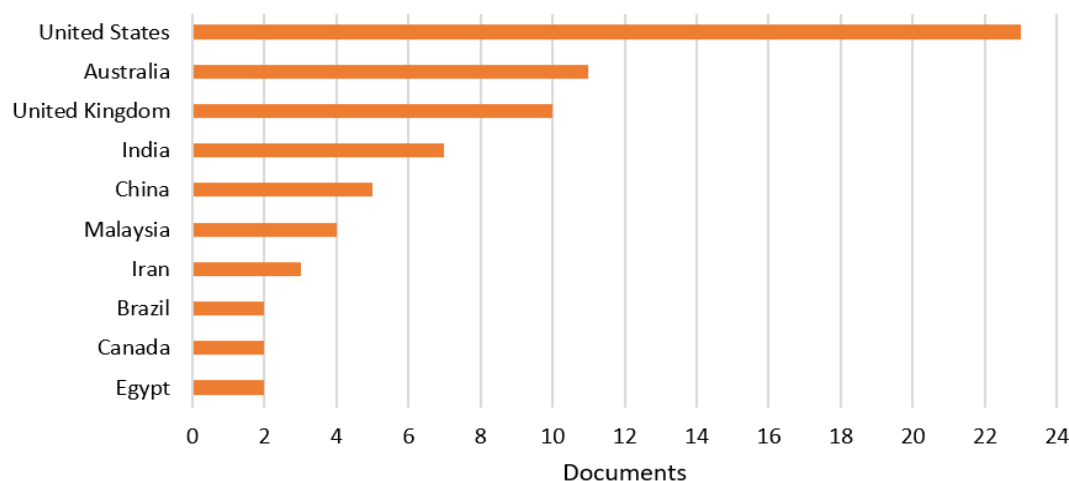

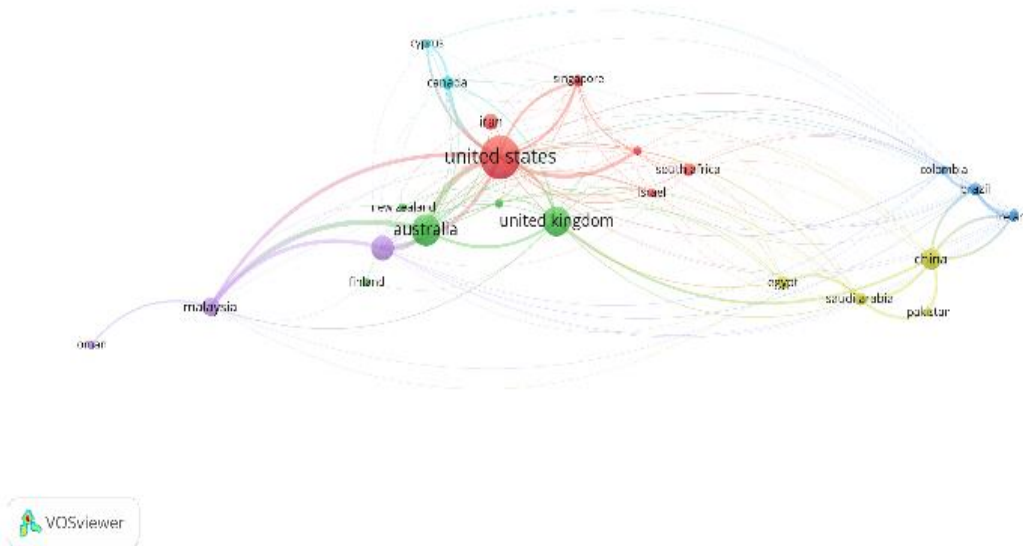Fig. 3 Number of articles by country or territory (top 10 countries)

Fig. 4 Network country visualization

The VOSviewer analysis reveals that research on emotional intelligence and leadership in construction demonstrates a globally distributed landscape, with the United States, United Kingdom, Australia, and China emerging as central contributors and collaboration hubs. The United States, as the most prominent node, exhibits extensive cross-continental linkages, particularly with Singapore, Iran, Canada, and the United Kingdom, highlighting its role in facilitating global EI knowledge dissemination. The United Kingdom and Australia display strong interconnections within Commonwealth networks, while China is expanding its influence through collaborations with Saudi Arabia, Egypt, and Pakistan. Notably, Malaysia is an emerging contributor, actively engaging with Australia and Oman, suggesting a growing interest in EI research within Southeast Asia. This distribution underscores the significance of EI as a research area with widespread scholarly attention while indicating opportunities for future collaboration, particularly between emerging contributors and established research hubs. The visualization also suggests the potential for Malaysia to strengthen its research profile through expanded regional and international collaborations, supporting the continued relevance of EI inquiry within the construction industry context.

Next, the allocation of scholarship pertinent to Emotional Intelligence and Leadership predicated on institutional affiliation is predominantly characterized by Henley Business School with 4 articles, University of the Peloponnese with 2 articles, University of Houston with 2 articles, Washington University in St. Louis with 2 articles, University of Reading with 2 articles, Swinburne University of Technology with 2 articles, and Swinburne University of Technology Sarawak Campus with 2 articles.
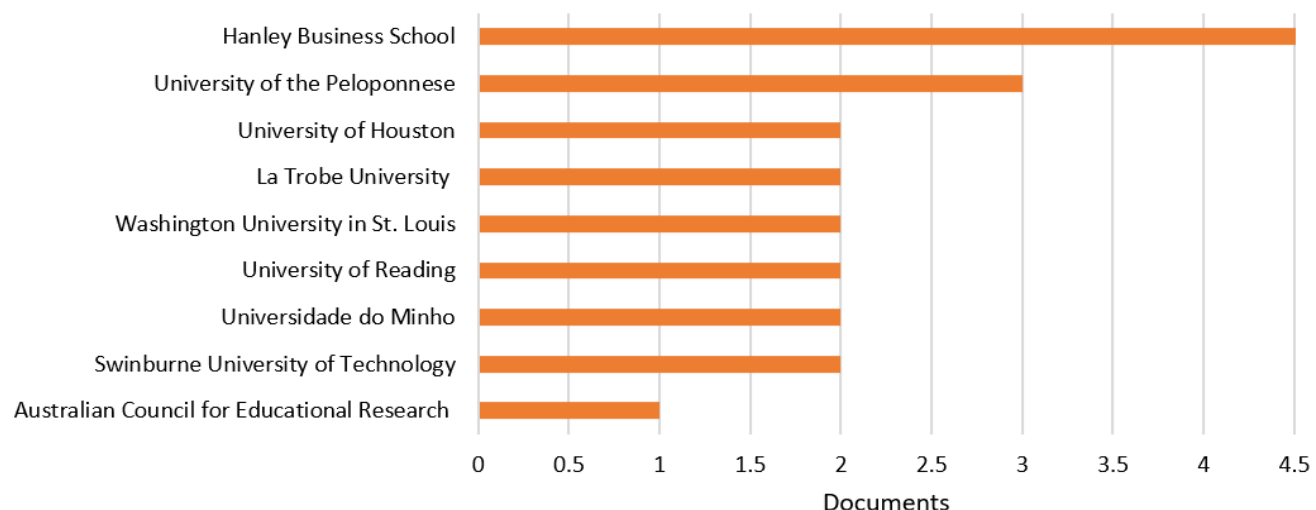

Fig. 5 Number of articles by affiliation (top 10 countries)

Henley Business School leads in publications on emotional intelligence and leadership due to its strong focus on leadership and organizational behaviour research, supported by dedicated centres like the Henley Centre for Leadership and strong industry collaboration. The University of the Peloponnese follows closely, leveraging its strengths in psychology and business, active participation in European research collaborations, and a growing emphasis on soft skills and emotional intelligence as key leadership competencies. Both institutions contribute significantly due to their academic focus, interdisciplinary research, and engagement with contemporary leadership challenges.

Third, the allocation of inquiries about Emotional Intelligence and Leadership based on the source is predominantly characterized by Leadership Organization Development Journal with 2 articles, Development and Learning in Organizations with 2 articles, International Journal Managing Projects in Business with 2 articles, Journal of Leadership Studies with 2 articles, Journal of Management Development with 2 articles, European Journal of Innovation Management with 1 article, European Journal of Engineering Education with 1 article, International Journal of Economic Research with 1 article, Journal of Knowledge Management with 1 article, and Social Science Journal with 1 article (see Fig 6).

Fig. 6 Number of articles by sources (top 10 countries)

Fourth, the distribution of research related to emotional intelligence and leadership in construction, based on authors, reveals no clear dominance. Among the top 10 authors, 7 of them (Aigbavboa, C; Anandh, K.S.; Cao, J.; Dainty, A.; Fu, Y.; Kukah, A.S.; Owusu-Manu, D.G.) have each written 1 article, 1 of them (Hadikusumo, B.H.W.) has written 3 articles, and 1 author (Sunindijo, R.Y.) has written 5 articles (see Fig. 7).
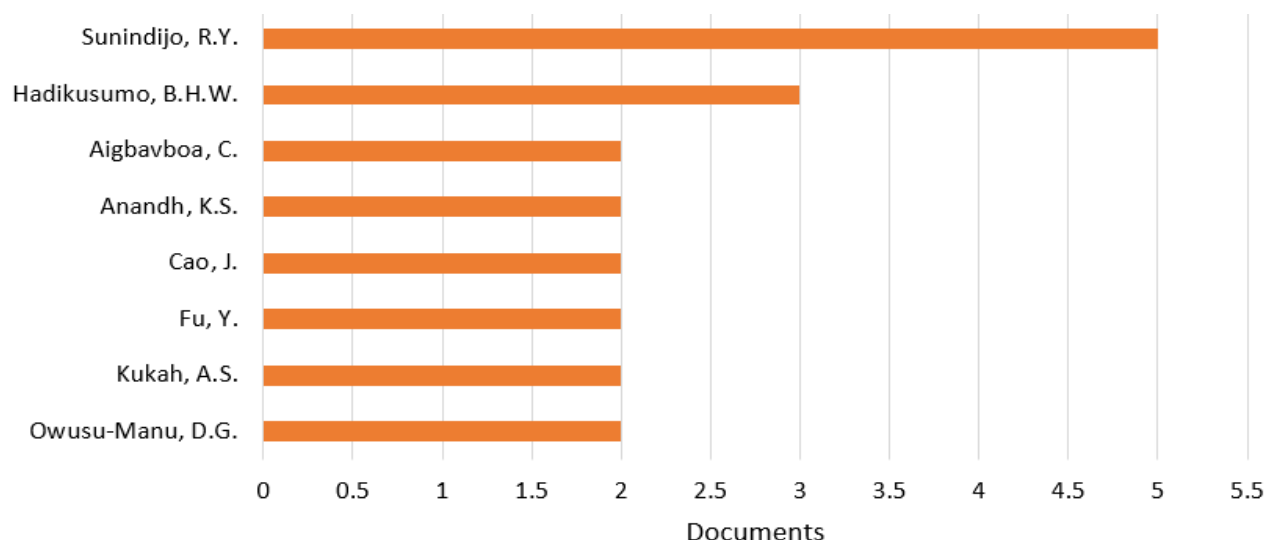

Fig. 7 Count of publications by author (top 10 authors)

RQ3: What are the theoretical and practical implications from the perspective of future research?

The examination was undertaken on 78 manuscripts amassed from the Scopus repository. VOSviewer was employed to illustrate that the results possess theoretical and pragmatic ramifications for forthcoming inquiries into researchers and practitioners to better understand the assumptions and findings related to emotional intelligence and leadership in construction. The bibliometric analysis results using VOSviewer can show which variables have been extensively researched by previous researchers and which variables have not been explored much, serving as a foundation for future studies. From a practitioner's perspective, the literature analysis results using VOSviewer will assist practitioners in implementing emotional intelligence and leadership in construction sustainably in the future and promoting the framework for construction organizations.

From Fig 8, the occurrence of emotional intelligence (42), leadership (30), personal competences (5), relational competence (4), organization climate (4), human resource management (1), innovation (3), social competence (3), sustainability (2), organizational citizenship (1), employee performance (1), self-efficacy (2), empathy (3), psychology (3), ethics (2), work engagement (2), transformational leadership (4), interprofessional relations (2), motivation (2), teamwork (1), creativity (1), emotion recognition (1), knowledge management (1), higher education (1), character (2), communication (3), self-care (5), and agility (1).
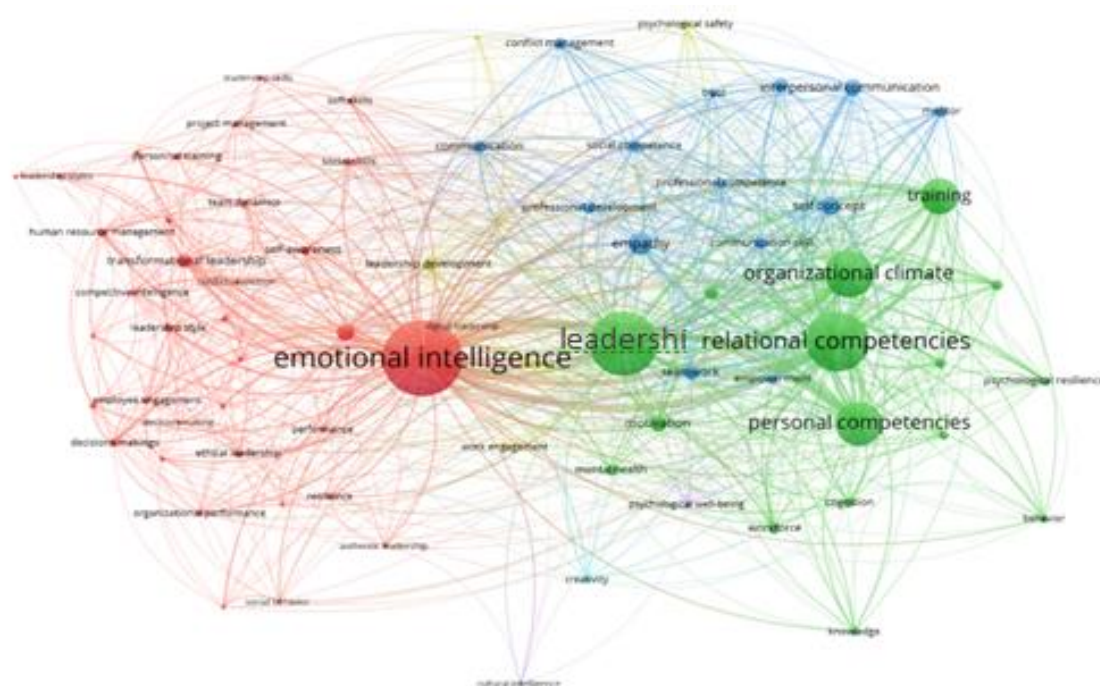
Fig. 8 Co-occurrence framework and representative of key terms

Table 2 Keywords by authors

Rank	Keyword	Total link strength
1	Emotional Intelligence	201
2	Leadership	198
3	Personal competences	103
4	Relational competence	97
5	Organizational climate	77
6	Training	65
7	Empathy	58
8	Leadership strategies	34
9	Work-life balance	29
10	Transformational leadership	18

The keyword analysis reveals that "Emotional Intelligence" and "Leadership" hold the highest total link strengths (201 and 198 respectively), indicating their central importance and frequent co-occurrence in scholarly discussions on leadership capabilities. Keywords such as "Personal competencies," "Relational competencies," and "Organizational climate" highlight the psychological and reflective dimensions of emotional intelligence in leadership development. Meanwhile, terms like "Training" and "Empathy" underscore the interpersonal and relational skills essential to emotionally intelligent leadership. The presence of "Leadership strategies," "Work-life balance," and "Transformational leadership" further reflects a holistic and strategic perspective, suggesting that effective leadership requires not just emotional awareness but also practical approaches to managing people and personal well-being.
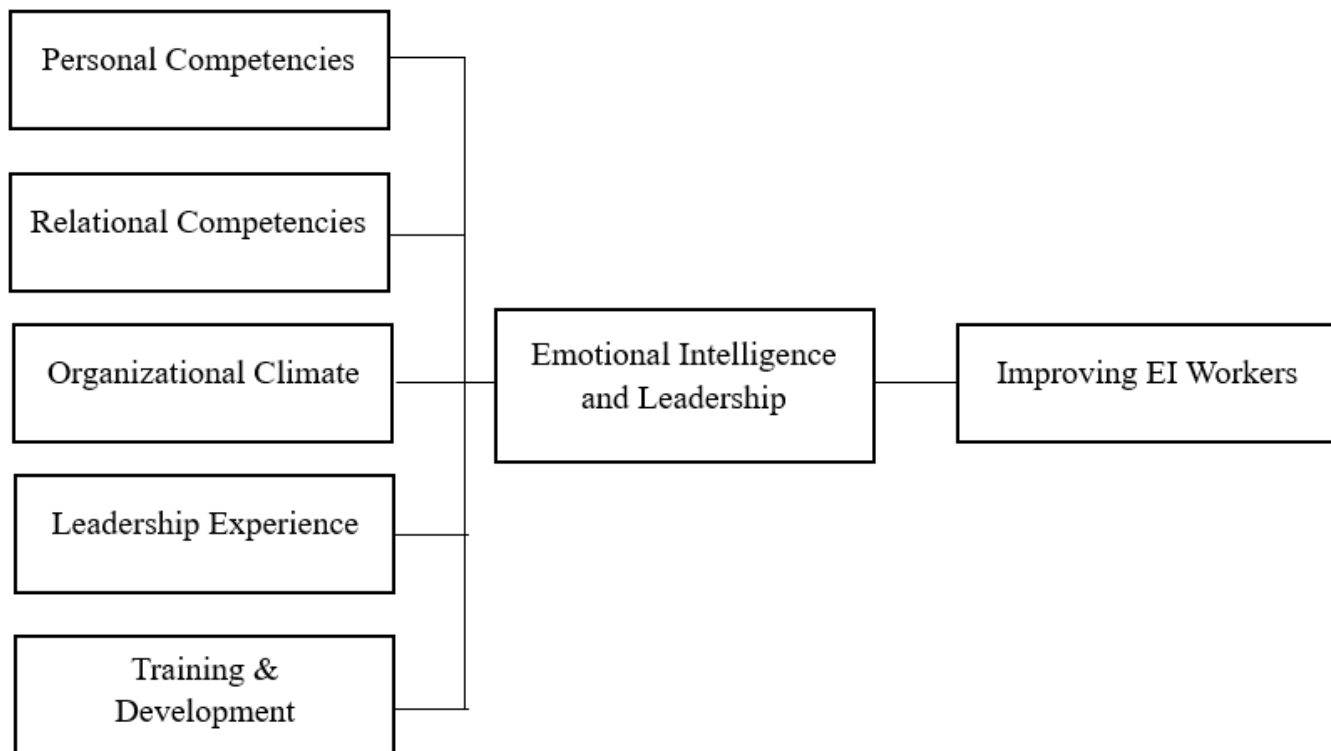

Fig. 9 Conceptual framework of emotional intelligence and leadership in construction

Personal Competencies

Personal competencies represent the foundation of emotional intelligence (EI) and significantly influence leadership performance. Self-awareness allows leaders to understand their emotions and the impact they have on others, which enhances authenticity and decision-making [38], [88], [126]. Similarly, self-esteem contributes to a leader's confidence in their ability to lead and manage relationships effectively [88]. The Big Five personality traits, especially conscientiousness, agreeableness, and openness, have been linked to emotional awareness and interpersonal effectiveness, both vital in emotionally intelligent leadership [31], [66]. Leaders also benefit from cognitive flexibility, enabling them to adapt their thinking and strategies in dynamic environments [51], [52], [115]. Another crucial trait is emotional stability, which allows leaders to remain composed and constructive in high-pressure situations [62], [87], [121]. In addition, a strong motivation level enhances leaders' drive to achieve goals and improve team outcomes [73], [76]. Reflective capacity allows for continuous self-improvement and deeper emotional insight, both crucial in emotionally intelligent behavior [1], [2]. Finally, stress tolerance ensures leaders can maintain composure and clarity during crises, facilitating calm and rational decision-making [56], [119].

Relational Competencies

Relational competencies are equally critical in EI leadership, as they shape how leaders interact with others. Team support fosters a culture of collaboration and shared responsibility, reinforcing psychological safety and trust [35], [37]. Peer feedback encourages mutual learning and enhances performance by facilitating open

communication and continuous development [27], [29]. A low conflict frequency often reflects a leader's capacity to de-escalate tensions and resolve issues constructively [77], [96]. Moreover, social learning from peers and supervisors helps leaders' model emotionally intelligent behaviours [36], [121]. The quality of workplace communication is also vital—clear, respectful, and empathetic exchanges promote team cohesion and reduce misunderstandings [1], [66]. Trust among team members is a fundamental relational pillar that enables openness and risk-taking, which are vital for innovation and accountability [51], [115]. Peer role modelling encourages the replication of positive leadership behaviours, thus reinforcing a culture of emotional intelligence [29], [49]. Finally, psychological safety, where team members feel safe to express themselves without fear of retribution, is a key outcome of emotionally intelligent leadership [35], [37].

Organizational Climate

The emotional tone of an organization, its climate, is shaped in large part by leadership behavior. Communication transparency enables honest dialogue and builds trust, while also preventing the spread of misinformation or fear [53], [108]. Leaders who uphold strong leadership values, such as integrity and inclusivity, establish a consistent and value-driven climate [88], [126]. An emotional feedback culture, where emotions are acknowledged and constructively addressed, promotes open communication and emotional safety [47], [136]. Work-life balance practices contribute to employee well-being and reduce emotional burnout, thus enhancing organizational commitment [1], [2], 19]. Similarly, stress-reducing policies such as workload management and flexible scheduling enhance emotional regulation among employees [31], [40]. The presence of incentives for collaboration motivates cooperative behavior and emotional engagement among team members [2], [6]. A fair reward system reinforces positive emotional behavior and ensures that contributions are acknowledged [119], [131]. Finally, minimizing power distance and hierarchical barriers allows for more inclusive communication and a climate of respect and psychological empowerment [74], [104].

Leadership Experiences

Leadership experience plays a formative role in developing and refining EI capabilities. Greater years of managerial experience correlate with enhanced emotional resilience and insight [29], [119]. Exposure to project failures offers critical learning opportunities that deepen a leader's reflective ability and emotional maturity [2], [6]. A positive conflict management record indicates that a leader can effectively navigate emotionally charged situations without escalation [1], [3]. Leading multi-cultural teams fosters adaptability, empathy, and inclusiveness skills deeply embedded in emotional intelligence [21], [104]. A leader's crisis navigation history also reveals their emotional agility under stress, which is vital for maintaining morale and clarity during uncertainty [6], [5]. A broader scope of responsibilities typically expands a leader's emotional insight by exposing them to varied interpersonal and organizational scenarios [72], [136]. Lastly, cross-functional exposure enhances EI by developing a leader's capacity to collaborate across disciplines and perspectives [67], [126].

Training and Development

Targeted training and development efforts are instrumental in building EI leadership capabilities. Participation in EI workshops help leaders build foundational emotional skills through theory and practice [76], [107]. Coaching and mentoring provide personalized guidance that helps leaders reflect on and adjust their emotional behaviors [20], [128]. Formal leadership training integrates emotional intelligence modules to foster self-awareness, empathy, and conflict resolution skills [29], [103]. EQ assessments, such as self-report tools or 360-degree feedback, provide insight into emotional strengths and areas for growth [21], [74]. Reflective journaling allows leaders to process experiences, monitor emotional responses, and set developmental goals [47], [136]. Role-play and simulation exercises offer hands-on learning environments to practice emotionally charged scenarios safely [107], [126]. Meanwhile, online learning modules expand accessibility to EI training and allow for flexible, scalable learning solutions [40], [94]. A robust continuous improvement culture supports lifelong learning and reinforces emotional agility through feedback and self-directed growth [72], [75].

Table 3 Factors of Emotional Intelligence and Leadership

Factors of Emotional Intelligence and Leadership		Source
A)	**Personal Competencies**	
1.	Self-awareness ability	[38], [88], [126]
2.	Self-esteem	[38], [88], [126]
3.	Personality traits (Big Five)	[31], [66]
4.	Cognitive flexibility	[51], [53], [115]
5.	Emotional stability	[62], [87], [121]
6.	Motivation level	[38], [73], [76], [94]
7.	Reflective capacity	[1], [2], [31]
8.	Stress tolerance	[57], [104], [119]
B)	**Relational Competencies**	
1.	Team support	[35], [37], [41]
2.	Peer feedback	[27], [29], [81]
3.	Conflict frequency	[77], [90], [112]
4.	Social learning	[36], [121]
5.	Workplace communication quality	[1], [31], [66]
6.	Trust among the team	[51], [66], [115]
7.	Peer role modelling	[27], [29], [31], [49]
8.	Psychological safety	[35], [37]
C)	**Organizational Climate**	
1.	Communication transparency	[53], [108], [131], [135]
2.	Leadership values	[88], [126]
3.	Emotional feedback culture	[6], [47], [136]
4.	Work-life balance practices	[1], [2]
5.	Stress-reducing policies	[31], [40]
6.	Incentives for collaboration	[2], [6]
7.	Reward system	[119], [131]
8.	Power distance/ hierarchy perception	[74], [104]
D)	**Leadership Experiences**	
1.	Years of managerial experience	[29], [104], [119]
2.	Exposure to project failures	[2], [6], [40]
3.	Conflict management record	[1], [10]
4.	Leading multi-cultural teams	[21], [104], [131]
5.	Crisis navigation history	[5], [6], [136]
6.	Scope of responsibilities	[69], [72], [136]
7.	Cross-functional exposures	[38], [67], [126]
E)	**Training and Development**	
1.	Participation in the EI workshop	[2], [69], [76], [94], [107]
2.	Use of coaching/mentoring	[20], [21], [103], [113], [128]
3.	Formal leadership training	[29], [103]
4.	EQ assessments	[21], [74]
5.	Reflective journaling	[47], [136]
6.	Role-play and simulation	[107], [126]
7.	Online learning modules	[40], [94]
8.	Continuous improvement culture	[72], [75], [107]

CONCLUSION

This systematic review of emotional intelligence and leadership in construction provides a comprehensive understanding of how emotional competencies intersect with leadership effectiveness, particularly in high-pressure and dynamic environments like construction. The findings affirm that it is a multifaceted construct

comprising personal and relational competencies, the broader organizational climate, practical leadership experience, and targeted training and development efforts. Each of these dimensions plays a vital role in shaping emotionally intelligent leaders capable of fostering team cohesion, resolving conflicts, and driving organizational performance. Despite its proven value, research on emotional intelligence and leadership in construction remains relatively scarce, presenting an opportunity for scholars to explore this field further, especially in emerging economies and culturally diverse sectors necessity in today's evolving leadership landscape.

LIMITATION AND RECOMMENDATION

The relatively small sample size of 78 articles represents a limitation of this study, as it allows for the identification of emergent themes but may not adequately reflect the overall breadth of existing research on emotional intelligence and leadership in construction. The exclusive reliance on Scopus, Web of Science, and ScienceDirect may also introduce selection bias, particularly by privileging English-language and Western-centric publications, which could potentially underrepresent perspectives from other cultural and regional contexts. Additionally, the use of bibliometric tools such as VOSviewer, though effective for mapping conceptual linkages, may oversimplify complex theoretical relationships. Future research should expand the scope of sources, incorporate cross-cultural and longitudinal analyses, and combine bibliometric approaches with qualitative meta-syntheses to capture the multidimensional nature of emotionally intelligent leadership in the construction industry. Future research should continue to investigate the contextual factors that influence EI, develop culturally sensitive models, and establish evidence-based training programs that enable leaders to navigate emotional complexities with competence and integrity.

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