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"TRACING THE EVOLUTION OF EMOTIONAL INTELLIGENCE AND COMMUNICATION STUDIES: A BIBLIOMETRIC APPROACH"

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Abstract
Emotional Intelligence (also known as **emotional quotient** or EQ) is a set of qualities and competencies that captures a broad collection of individual skills, usually referred to as soft skills or inter and intra-personal skills, that are outside the traditional areas of specific knowledge, general intelligence, and technical or professional skills. Emotional intelligence has now become an essential quality that companies look for during the hiring process. Emotional intelligence (EI) enhances communication, problem-solving, and relationships within teams. This study aims to study the trends and patterns of research in the area of Emotional Intelligence and Communication through bibliometric analysis. For this purpose, 654 articles were extracted from one of the reputed database, Scopus. And the data was analysed using VOS Viewer program and Bibliometric R-package. The results identified important relevant themes, trends, co-occurrence of keywords, most cited countries, most cited documents, most ranked journals and co-authorshipp analysis. From the analysis, we understand that there has been a sudden increase in the number of publications in this area. The most cited country in this area of research is USA followed by UK and Australia. Most ranked journal is Journal of Surgical Education followed by Frontiers in Psychology and then BMC Medical Education. The most cited document is of goleman. d followed by salovey p., and mayer j.d. From the co-occurrence analysis, we can see that compared to other concepts emotional intelligence has been studied along with communication and leadership the most.

Keywords:
Emotional intelligence, Communication, Bibliometrics, VOS Viewer, Biblioshiny- R package

1. Introduction

Emotional intelligence has long been a popular topic among behavioural psychologists in understanding how people identify, assess and control their emotions (Goleman, 1996, 2004; Mayer, Caruso, & Salovey, 2000; Salovey & Mayer, 1990). Segal (2008) maintains that emotional intelligence is the ability to recognise the emotions in yourself and those of others around you, manage for potential effects of your emotions on others, and consider all of the emotions in relations and in decision-making and problem-solving.

Psychologists have noted that general intelligence alone only contribute around 20 percent of individual success in life while the remaining 80 percent comes from other factors such as emotional intelligence (Goleman, 1995). It is said that individuals possess some abilities in using emotions in order to enhance thought effectively than others (Rastegar & Karami, 2013). Thus, emotional intelligence literature has grown since then (Mayer & Caruso, 2008; Matthews, Roberts, & Zeidner, 2004; Subramanyam, 2012).

EQ facilitates effective communication by enhancing awareness of emotional dynamics, enabling to adjust to different situations, and allowing to express oneself powerfully. Emotional intelligence (EI) is widely regarded as a vital skill that aids in the improvement of communication, management, problem-solving, and interpersonal relationships in the workplace. According to research, EI is thought to influence how well employees interact with their colleagues, as well as how they manage stress and conflict.

Communication and emotional intelligence are two crucial abilities that every employee in a company needs to possess since they can either positively or negatively affect the enterprise's overall

performance. They often need to communicate in different ways with different team members, requiring emotional awareness and flexibility. Despite the huge number of literature on emotional intelligence and communication, to the best of our knowledge, no study has conducted a bibliometric analysis on the aforementioned topics published in the Scopus database. Thus, the primary objective of this study is to fill the existing research gap by providing answers to the following four research questions:

- RQ1: What are the current research trends in the field of emotional intelligence and communication?
- RQ2: Which are the most cited country in research related to emotional intelligence and communication?
- RQ3: Which are the most cited documents in research related to emotional intelligence and communication?
- RQ4: What thematic structure is evident in research related to emotional intelligence and communication?

2. Research Materials and Methods

An important element of the research process is choosing the methods and resources for data analysis. The data for this study has been obtained from one of the online databases. Among the well-known databases frequently employed in bibliometric research are WoS, Scopus, Google Scholar, etc. For this study, the data was collected from the Scopus database. The software used for analysis is VOS Viewer and Biblioshiny. Once the database is selected, the next step is to decide the query string. In this study, documents were extracted using the search terms "emotional intelligence" or "ei" and "communication". Further details of the search strategy are given in Table 1.

Table 1. Parameters of the search strategy

Database	Scopus
Search Date	2 July 2024
Search word	Emotional intelligence and Communication
Category	Article Title, Abstract and Keyword
Query String	"emotional intelligence" or "ei" and "communication
Total docs before filtration	2330
Subject criteria	Social Sciences, Psychology and Business, management and Accounting
Document type	Article
Period time	No filtration
Language	English
Source type	Journal
Publication Stage	Final
Total docs after filtration	654

3. Results and Discussion

3.1 Most Cited Countries

Country	TC	Average Article Citations
USA	3608	21.20
UNITED KINGDOM	1167	36.50
AUSTRALIA	806	22.40
CHINA	400	13.80
ITALY	399	33.20
SWITZERLAND	275	275.00

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GERMANY	230	23.00
SPAIN	194	9.20
CANADA	164	23.40
BELGIUM	119	59.50

Note: TC= Total Citations

Table 3.1 shows the citations across different countries, with the United States leading by a significant margin of 3,608 citations. The results from the table clearly show the dominance of the US in this domain of research. The United Kingdom ranks second with 1167 citations, followed by Australia with 806 citations. Notably, there is a sharp decline in citations after the first three countries, with countries such as China (400 citations) and Italy (399 citations) showing significantly lower figures. The remaining countries, including Switzerland, Germany, Spain, Canada, and Belgium, contribute even fewer citations, indicating that the majority of influential research is concentrated in a few key countries.

3.2 Bradford Law Analysis

SO	Rank	Freq	cumFreq	Zone
JOURNAL OF SURGICAL EDUCATION	1	17	17	Zone 1
FRONTIERS IN PSYCHOLOGY	2	15	32	Zone 1
BMC MEDICAL EDUCATION	3	9	41	Zone 1
NURSE EDUCATION TODAY	4	9	50	Zone 1
MEDICAL EDUCATION	5	7	57	Zone 1
EMOTION	6	6	63	Zone 1
PERSONALITY AND INDIVIDUAL DIFFERENCES	7	6	69	Zone 1
SAGE OPEN	8	6	75	Zone 1
SUSTAINABILITY (SWITZERLAND)	9	6	81	Zone 1
INFANTS AND YOUNG CHILDREN	10	5	86	Zone 1

Table 3.2 shows the ranking of journals based on Bradford Law Analysis using biblioshiny. The results reveal that the most ranked journal is Journal of Surgical Education and second rank is for Frontiers in Psychology followed by BMC Medical Education and so on.

3.3 Co-authorship Analysis:

Co-authorship network between countries was performed to investigate the international collaboration among authors in the field of emotional intelligence and communication. Only countries with at least five published articles on the topic were considered when constructing the co-authorship network. The network is obtained using the VOS Viewer software.

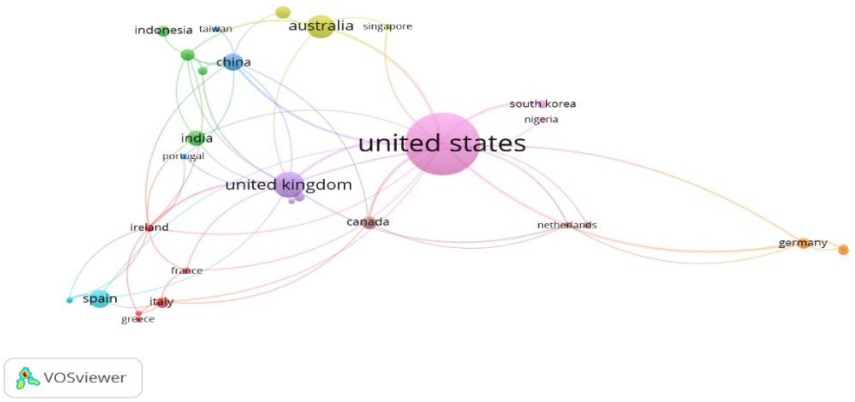

Figure 1. Co-authorship network between countries.

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This network map demonstrates the importance of international collaborations in advancing research, where leading countries contribute significantly to the global exchange of knowledge and scientific innovation. The circles in Figure 1 represent countries, while the links between them indicate the co-authorship relationships. By examining this interactive network map, it is possible to determine which countries have a higher number of international co-authorships, indicating a greater level of collaboration and co-publication activity between them. From the figure, it is understood that the United States is the most central and influential country in the area of emotional intelligence and communications research.

3.4 Trending topics

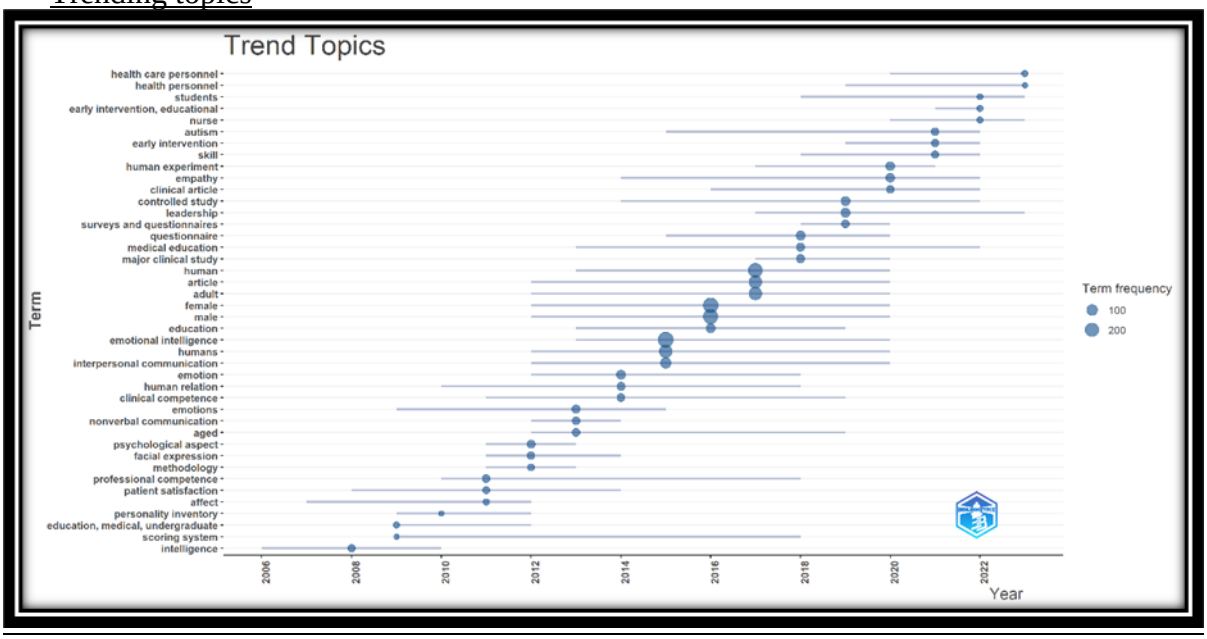
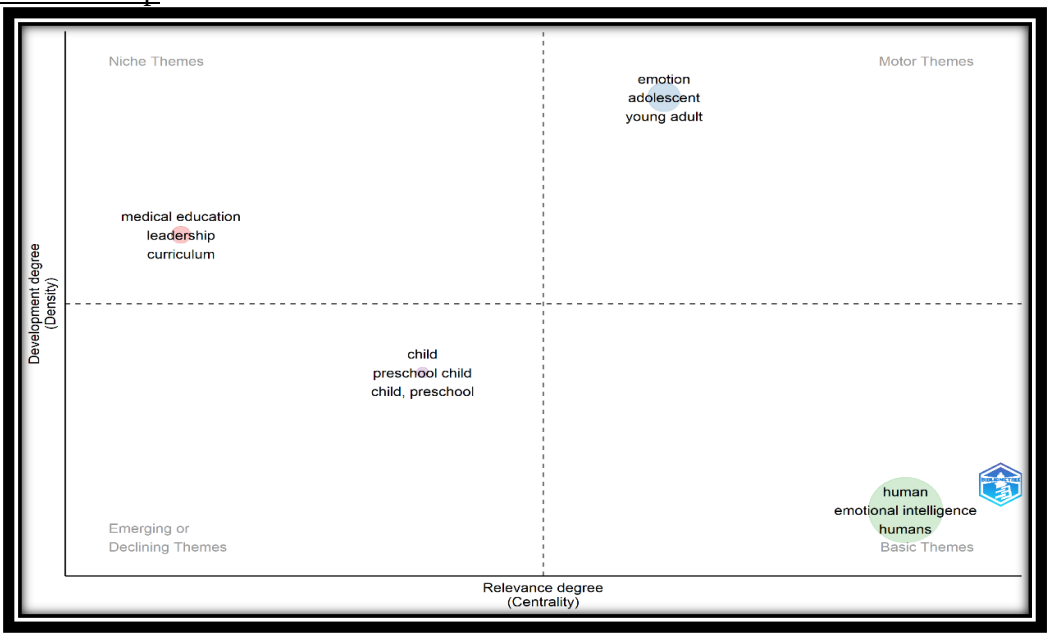


Figure 2 Trending topic analysis provides the keywords utilised in the most trending articles. This is a relevant method for determining the recent trends in the area of our research topic. The graph shows that the recent research in this area are concentrated around the healthcare sector.

3.5 Thematic Map



In Figure 3 the thematic map shows four regions such as niche themes, motor themes, emerging or declining themes and basic themes. The thematic map highlights that the most developed and

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influential research areas in the intersection of emotional intelligence and communication focus on emotions and their impact on adolescents and young adults. There are specialised but significant contributions in medical education and leadership, while basic foundational work is still ongoing in understanding the core concepts of emotional intelligence, particularly in relation to humans in general. Emerging research may be focusing on children, specifically in early childhood, but this area is still under development and may represent an emerging trend or a declining area of interest.

3.6 Co-occurrence network of author keywords

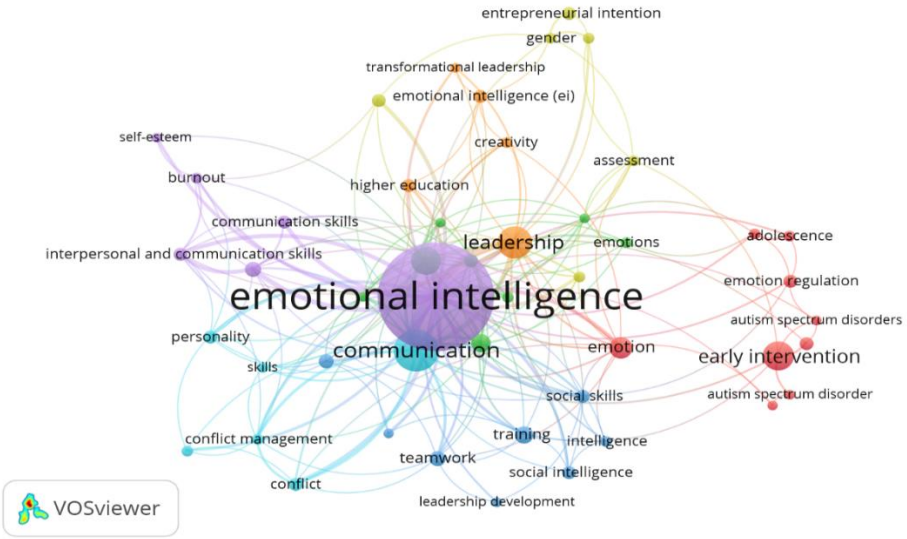

Figure 4, represents a co-occurrence network map related to the concept of "emotional intelligence," with various associated terms clustered around it. The size of the nodes corresponds to the frequency of the terms, while the connections indicate the strength of their association with emotional intelligence. Key terms like "communication," "leadership," and "early intervention" are prominently linked to emotional intelligence, suggesting these are central themes in the literature. Other connected terms, such as "self-esteem," "burnout," "transformational leadership," and "social skills," indicate a broad range of interdisciplinary research exploring how emotional intelligence intersects with various aspects of personal and professional development. This network map highlights the diverse applications and relevance of emotional intelligence across different fields, emphasizing its role in leadership, education, interpersonal relationships, and mental health.

3.7 Co-citation network of references

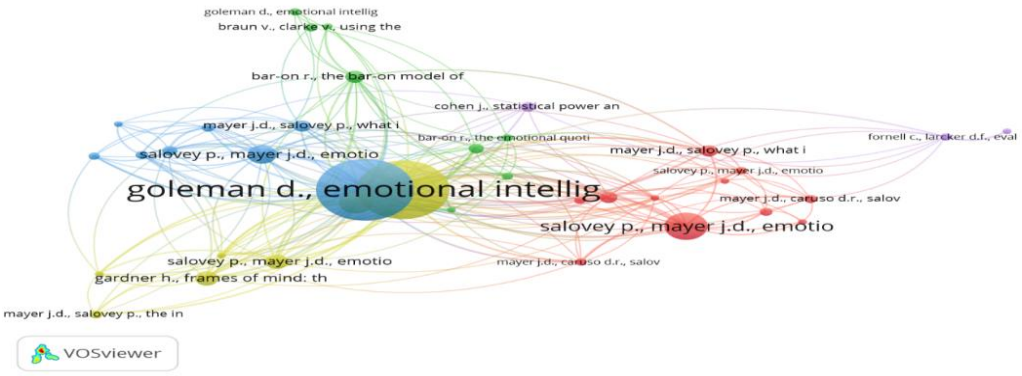

Figure 5 shows co-citation network analysis of cited authors. It depicts that the most cited document is of goleman d followed by salovey p., and mayer j.d.

4 **Conclusion**

The current study contributes to a better knowledge of the state of research conducted in the area of Emotional Intelligence and Communication till 2nd July 2024. This bibliometric analysis clearly helps to understand the trends and patterns in emotional intelligence and communication research. From the analysis, we understand that there has been a sudden increase in the number of publications in this area. A total of 654 documents were extracted from the Scopus database for analysis. The most productive country in this area of research is USA followed by UK and Australia. Most ranked journal is Journal of Surgical Education. From the co-occurrence analysis, we can see that compared to other concepts emotional intelligence has been studied along with communication and leadership the most.

5 **Limitations and Future Scope**

While the paper offers significant insights, it is imperative to acknowledge certain limitations inherent in the research. One significant drawback is the exclusive dependence on a single database for data retrieval, which ignores the advantages of potentially combining data from several sources.

Future studies might think about obtaining data from different databases or sources to improve the findings' robustness and generalizability. By reducing potential biases and boosting the overall reliability of the results, incorporating multiple datasets may offer a more thorough and varied perspective on the research topic. Moreover, the utilization of multiple sources can provide a more comprehensive range of information and facilitate cross-validation of findings, thereby fortifying the conclusions of the paper.

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