Emergence of Strategic Leadership in the Healthcare sector: A Bibliometric Analysis

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Abstract:
The healthcare sector is a complex workplace where human resource management is of vital importance. The strategic leadership play an important role to direct the diversified workforce towards achieving the goals of organisation to ensure sustainability and competitiveness. The current study has highlighted the emergence of strategic leadership in the healthcare sector. A bibliometric analysis approach has been applied after extracting the date from the Scopus database in the domain of strategic leadership in healthcare sector. The data after the filtration has been analysed using VOS viewer and R-studio (Biblioshine). The findings will help in understanding of the contributions made since 1991 and will be useful to researchers working in this domain. An upsurge trend has been viewed in the publication of documents in this domain since the year 2015. With the application of word dynamics and thematic analysis the study presented the emerging themes in the domain.
Keywords
dynamics, emerging, strategic, leadership, study

Introduction:
Healthcare is one of the critical sectors all around the world. Terms such as patient rights, quality, internal and external customer satisfaction, strategic management and leadership have been in the focal point of modern-day healthcare management (Fatih&Ahmet, 2014). In the recent years, many studies have thrown light on the strategic leadership as a collective mechanism for alleviating healthcare disparities across the countries (Wooten et al., 2006).
Leadership in organisation acts as an interlinkage for the organisation and the workforce to collectively work for the organisational goals, its sustainability and the competitiveness (Kaya, 2015). Managers are expected to supervise their subordinates for the effective performance along with the managerial roles and responsibilities (Soliman& Spooner, 2000). A leader is more than a manager who has tendency to influence his team-mates with the usage of his leadership qualities and traits (Boardley&Kavussanu, 2009). The implementation

of strategies in leading the team towards meeting the milestones of the team towards in fulfilling the organisational goals, leads to the term strategic leadership (Beer et al., 2005). Thus, strategic leadership can be defined as the trait of leadership in creating strategic alliances seeing into the forthcoming opportunities and detecting the right strategies, executing such strategic tact and choosing the right leadership behaviour at the right time with the persistence of ensuring and keeping the sustainability and competitive edge of the organization within a chaotic atmosphere (Poister, 2010). Also the person who execute the correct leadership behaviour and influence its followers for the benefit of organisation is called strategic leader (Kavanagh &Ashkanasy, 2006). Strategic leadership is complex type of leadership in a future-oriented manner by inducing compliance, actively creating novelty, managing change initiatives, personifying norms, and mobilizing efforts toward desired milestones (Peschl&Fundneider, 2017).

The healthcare sector is challenging and complex due to the interdisciplinary work and, occasionally, services complementing each other (Mosadeghrad&Ferdosi, 2013). The strategic leader needs to be convincing and able to direct the various kind of people at work (Mumford et al., 2002). In healthcare institutions, the strategic leader is expected to show determination and achieve success through employee groups with high levels of expertise (Appelbaum&Wohl, 2000). As per the collective leadership theory, the leadership emerges in different forms and engages in a diverse set of strategic actions when addressing healthcare disparities (Paunova, 2015). The causes of healthcare disparities are multiple and include poverty, educational level, access to healthcare, societal discrimination, and lack of understanding for how to treat diseases affecting minority populations (Gostin& Wiley, 2018). This makes it difficult for leaders to craft a viable strategy and define effective mechanisms for alleviating this problem (Feldt, 1980). Hence, the purpose of this study is to through light on the emergence of strategic leadership that address prenatal healthcare disparities using bibliometric analysis technique to answer the following questions.

R1: What is the trend of publications in the domain of 'Strategic Leadership in Healthcare'?

R2: What are the leading documents on the basis of maximum citations contributing in the literature of concerned subject area?

R3: What is the most frequent word cloud used by the authors in this domain?

R4: What are the emerging themes in the concerned domain on the basis of thematic analysis?

The results of the study would help the current and future authors and researchers to understand the emergence of strategic leadership in the healthcare sector.

Research Methodology:

In the current study, the bibliometric analysis technique has been used (Pritchard, 1969). The data has been gathered from Scopus which is the largest abstract and citation database of peer-reviewed literature. "Strategic", "Leadership" and "Healthcare" have been used as relevant key words for extracting the data from Elsevier, using the operator "AND". A total of 645 documents are analysed after the applying the inclusion and exclusion criteria. The bibliographic data has been analysed using software VOS viewer and R-studio (Biblioshine) to know about the most prolific documents with maximum number of citations, trend analysis, word growth and trend topics.

The final keyword used is-

TITLE-ABS

KEY ("STRATEGIC" AND "LEADERSHIP" AND "HEALTHCARE") AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "re") OR LIMIT-TO (DOCTYPE , "cp") OR LIMIT-TO (DOCTYPE , "ch"))

Inclusion and Exclusion Criteria:

A total of 697 documents are extracted using the three key words= "Strategic", "Leadership" and "Healthcare". Out of 697 documents, 684 were in English language and rest of the documents were in Spanish (4), German (3), Italian (2) and Persian (2) language. Thus, the documents were excluded to only English language resulting in 684 documents. Out of the 684 documents, the type of document was limited to articles (495), review articles (111), conference paper (23) and reviewed chapters (18).

Documents by Subject Area

Out of the total documents 645 documents are from the domain of 'Medicine', 176 documents are from 'Nursing' domain, 101 documents are taken from 'Business, Management and Accounting' and 64 documents are from the domain of 'Social Sciences'. The rest of the documents taken in the purview of study are from different subject areas such as 'Health Professions' (31 documents), 'Engineering' (21), 'Pharmacology, Toxicology and Pharmaceutics' (16), 'Computer Science' (14), 'Biochemistry, Genetics and Molecular Biology' (12), 'Decision Sciences' (12), 'Multidisciplinary' (9), 'Environmental Science' (8), 'Immunology and Microbiology' (7), 'Energy' (6), 'Agricultural and Biological Sciences' (5), 'Arts and Humanities' (5), 'Economics, Econometrics and Finance' (5), 'Psychology' (5), 'Dentistry' (4), 'Neuroscience' (4), 'Mathematics' (3), 'Earth and Planetary Sciences' (2), 'Materials Science' (2), 'Physics and Astronomy' (2), 'Chemical Engineering' (1), 'Chemistry' (1) and 'Veterinary' (1); shown in the figure 1.
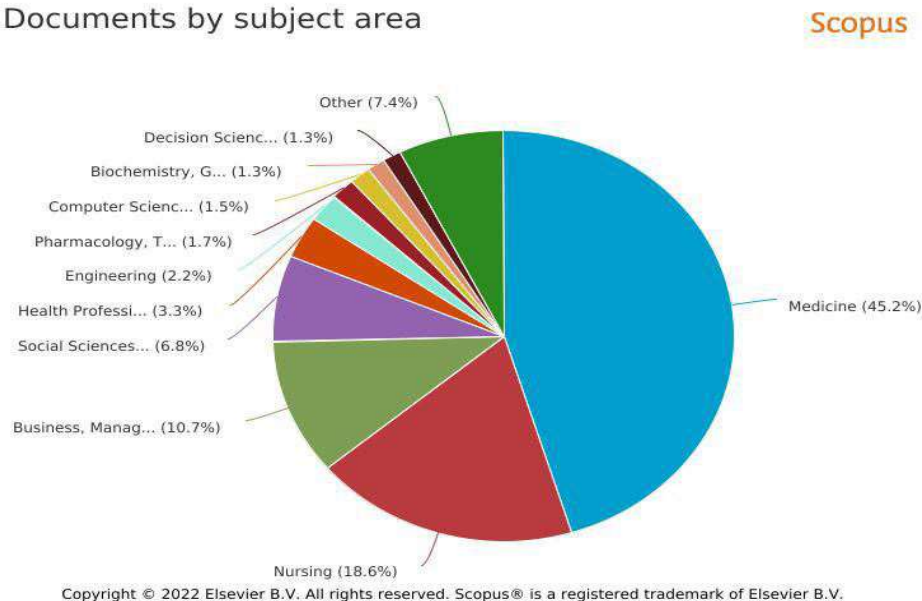
Figure 1: Documents by subject area

Data Analysis and Results

As shown in the figure 2, the number of documents in the domain of leadership in healthcare started from 1991. Not much significant number of documents published up to the year 2015, but after 2015 an uptrend is seen with increase in the number of documents per year till present. The maximum number of articles are published (80 documents) in the year 2021. Thus, it signifying the upcoming trend of the emergence and importance of strategic leadership in the healthcare sector.
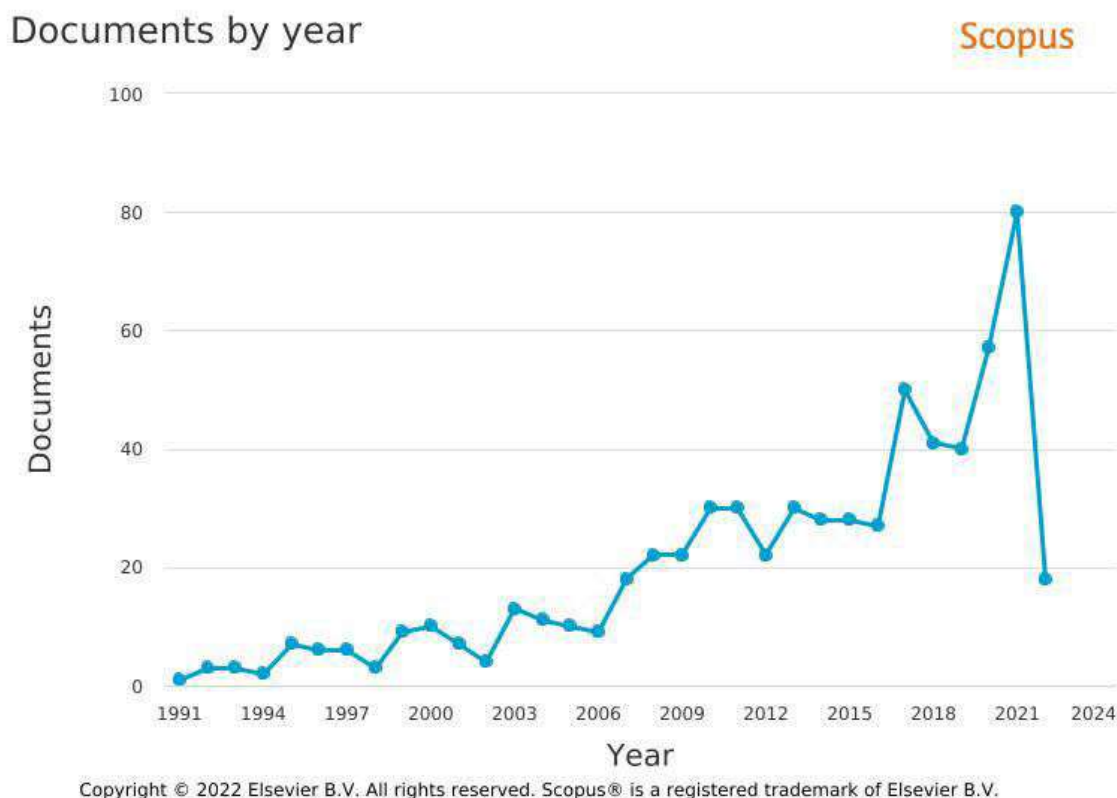
Figure 2 Documents by Year

The most global cited documents are presented in the table 1. The document with maximum number of citations i.e., 679 is 'Strategies to prevent and control the emergence and spread of antimicrobial-resistant microorganisms in hospitals: A challenge to hospital leadership' with total citations per year 25 and the normalized TC as 5.9.

Table 1 List of most global cited documents

Rank	Paper	Author/s	Total Citations	TC per Year	Normalized TC
1	Strategies to prevent and control the emergence and spread of antimicrobial-resistant microorganisms in hospitals: A challenge to hospital leadership	GOLDMANN DA, 1996, J AM MED ASSOC	679	25	5.9

2	Transforming healthcare: A safety imperative	LEAPE LL, 2009, QUAL SAF HEALTH CARE	338	24	9.6
3	Promoting patient-centered care: A qualitative study of facilitators and barriers in healthcare organizations with a reputation for improving the patient experience	LUXFORD K, 2011, INT J QUAL HEALTH CARE	254	21	12.2
4	The increase in global HIV epidemics in MSM	BEYRER C, 2013, AIDS	222	22	10.3
5	The implementation leadership scale (ILS): Development of a brief measure of unit level implementation leadership	AARONS GA, 2014, IMPLEMENT SCI	187	21	10.9
6	Patient and Stakeholder Engagement in the PCORI Pilot Projects: Description and Lessons Learned	FORSYTHE LP, 2016, J GEN INTERN MED	152	22	11.1
7	Distributing leadership in health and social care: Concertive, conjoint or collective?	CURRIE G, 2011, INT J MANAGE REV	128	11	6.1
8	Pursuing the Triple Aim: The First 7 Years	WHITTINGTON JW, 2015, MILBANK Q	121	15	13.2
9	Vital directions for health and health care priorities from a national academy of medicine initiative	DZAU VJ, 2017, JAMA	106	18	9.4
10	Institutionalizing evidence-based practice: An organizational case study using a model of strategic change	STETLER CB, 2009, IMPLEMENT SCI	94	7	2.7
11	US organ donation breakthrough collaborative increases organ donation	SHAFER TJ, 2008, CRIT CARE NURS Q	92	6	4.3
12	The path to longer and healthier lives for all Africans by 2030: the Lancet Commission on the future of health in sub-Saharan Africa	AGYEPONG IA, 2017,	91	15	8.1
13	Health systems and the right to the highest attainable standard of health	HUNT P, 2008, HEALTH HUM RIGHTS	88	6	4.1

14	Nature of human error: Implications for surgical practice	CUSCHIERI A, 2006, ANN SURG	87	5	4.3
15	Strategic performance management: Development of a performance measurement system at the mayo clinic	CURTRIGHT JW, 2000, J HEALTHC MANAGE	85	4	2.9

Thematic Analysis

This section investigates the themes that dominate the research landscape in the domain of strategic leadership in healthcare domain and areas that researchers have focussed on over the years (Agbo et al., 2021). The authors' keywords are used to conduct the keyword analysis on the basis of their frequency of occurrence in the published documents. Besides, the study also tries to gain insight into whether there is a shift in the topic of discussion among scholars within the field. We first began by analysing authors' keywords and their frequency of occurrences. Next, we carried out an analysis of keywords dynamics, trending topics, co-occurrence network, and thematic areas of the field.

Key-Word Dynamics and Trend Topics

The authors' keywords on the basis of their frequency of occurrence are presented in the word dynamic table 2. The most frequently used keywords in the domain of 'Leadership in healthcare sector' from the span of time of 2012 to 2021 are 'Leadership' with frequency of occurence-65, 'Healthcare' with frequency of occurence-19, 'Quality Improvement' with frequency of occurence-14, 'Covid-19' with frequency of occurence-14, 'Innovation' with frequency of occurence-13, 'Strategy' with frequency of occurence-12, 'Implementation' with frequency of occurence-12, 'Management' with frequency of occurence-12 and 'Health Policy' with frequency of occurence-10. The other important keywords with frequency ranging from 7 to 10 are Qualitative Research 'Patient Safety', 'Clinical Leadership, 'Nursing', 'Sustainability' and 'Public Health'.

Table 2 Ranking of Keywords

Rank	Keywords	Frequency	year_q1	year_med	year_q3
1	Leadership	65	2012	2017	2020
2	Healthcare	19	2014	2017	2021
3	Quality Improvement	14	2017	2019	2021
4	Covid-19	14	2021	2021	2021
5	Innovation	13	2013	2017	2021
6	Strategy	12	2012	2017	2020
7	Implementation	12	2017	2019	2020
8	Management	12	2016	2020	2021
9	Health Policy	10	2018	2020	2021
10	Qualitative Research	9	2019	2020	2022
11	Patient Safety	8	2010	2014	2018
12	Clinical Leadership	8	2012	2017	2020

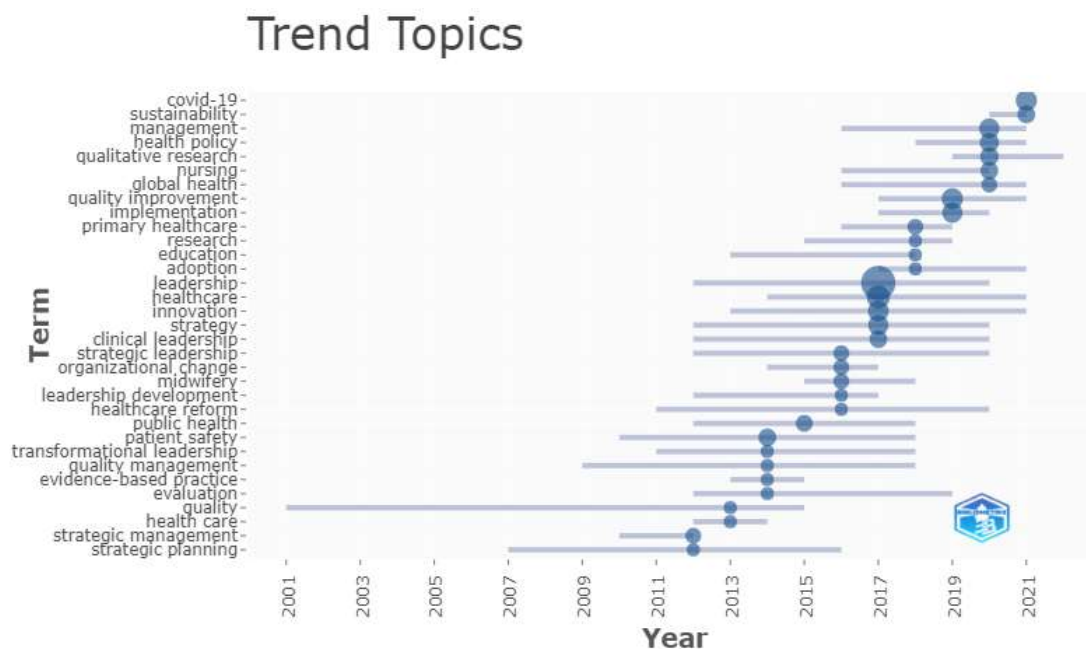| 13	Nursing	8	2016	2020	2020
14	Sustainability	8	2020	2021	2021
15	Public Health	7	2012	2015	2018

Figure 3 Trend Topics

The analysis of trend topics is shown in figure 3. It shows that in the recent years of 2020 and 2021 the most trend topics in the subject area of 'Leadership in Healthcare sector' are

Table 3 Word Dynamics-Year wise

Year	LEADERSHIP	HEALTHCARE	COVID-19	QUALITY IMPROVEMENT	INNOVATION	IMPLEMENTATION	MANAGEMENT	STRATEGY	HEALTH POLICY	QUALITATIVE RESEARCH
2011	15	4	0	1	3	0	1	3	0	0
2012	20	5	0	2	3	0	2	3	0	0
2013	24	5	0	2	4	1	2	4	1	1

2014	26	5	0	2	4	1	2	5	1	2
2015	27	6	0	2	4	1	2	5	1	2
2016	30	9	0	2	6	2	4	6	1	2
2017	35	10	0	4	7	4	4	6	2	2
2018	37	11	0	6	7	5	4	7	4	2
2019	42	13	0	9	8	8	5	7	4	3
2020	51	13	2	10	8	9	7	9	6	6
2021	63	19	11	14	13	11	12	11	9	6
2022	65	19	14	14	13	12	12	12	10	9

In the table 3 of word dynamics (year wise) it is presented that the occurrence of the keywords-Leadership, Healthcare, Quality Improvement, Innovation, Implementation, Management, Strategy, Health Policy and Qualitative Research is continuously increasing from the year 2011 to 2022. Thus, it is clear that the need of strategic leadership in the healthcare sector started recognizing in the year 2011. After the year 2011, the researchers were attracted towards this domain and in the recent year 2022 there is already the occurrence of 'Leadership is 65 which is maximum of the time spam of 2011 to 2022; along with the maximum occurrence of the keywords Healthcare with 19 occurrence, Quality Improvement with 14 occurrence, Innovation with 13 occurrence, Implementation with 12 occurrence, Management with 12 occurrence, Strategy with 12 occurrence, Health Policy with 10 occurrence and Qualitative Research with 9 occurrence in the year 2022 only. Hence, it can be concluded that the greater extent of emergence of strategic leadership in the health care sector has been felt along with the keyword of quality improvement, innovation, implementation, management and qualitative research.

The figure 4 of Word Growth of the keywords from the domain under study shows the cumulative occurrence of the key words- Leadership, Healthcare, Quality Improvement, Innovation, Implementation, Management, Strategy, Health Policy and Qualitative Research. The maximum word growth has been noticed for the 'Leadership' and 'Healthcare' along with the significant growth of the words such as 'Quality Improvement', 'Innovation', 'Implementation', 'Management' and 'Strategy'.
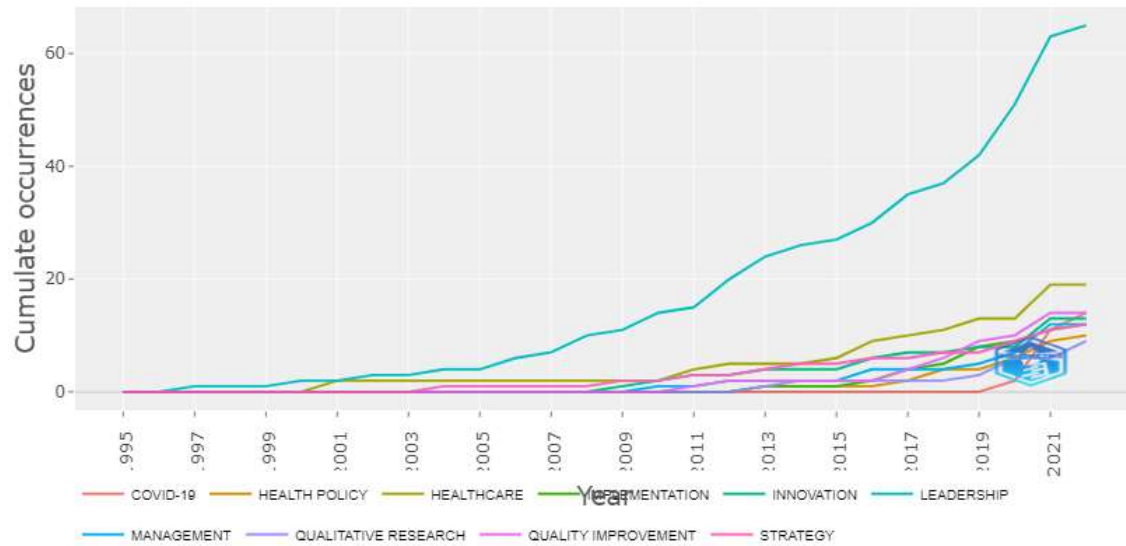
Figure 4 Word Growth

The thematic network structure is shown in the figure 5, highlighting the four types of themes (Herrera-Viedma et al., 2020) named as the motor themes in quadrant 1, isolated themes in quadrant 2, emerging themes in quadrant 3 and basic themes in quadrant 4 on the basis of centrality and density of authors' keywords. The basic themes are the themes which are relevant for the field of research but are not well developed shown in the quadrant 4 with high relevance but less density. Thus, there is a lot of scope of the research studies to be conducted in future connecting the key words leadership, healthcare and management.
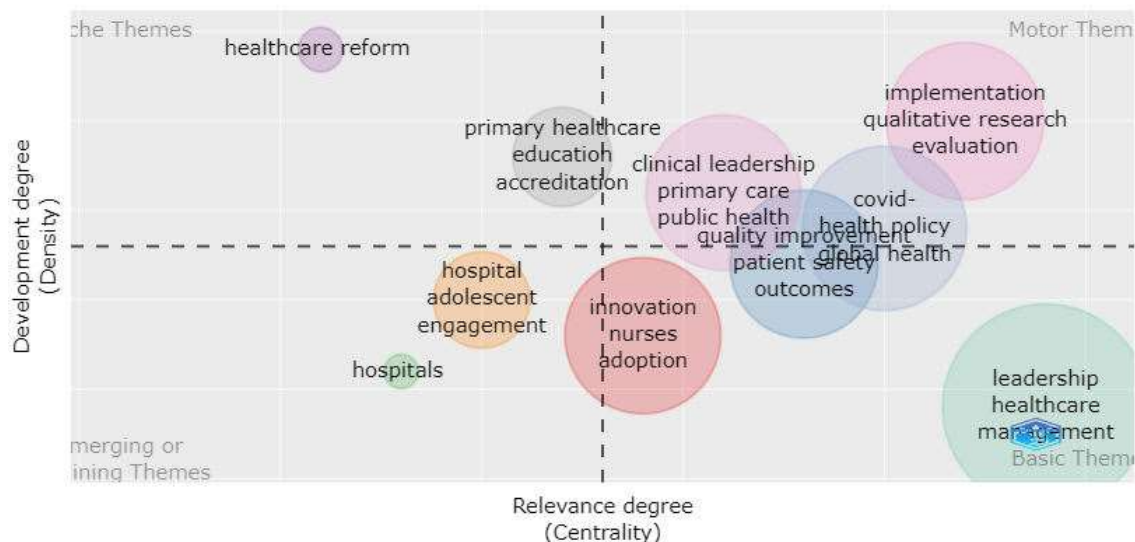

Figure 5 Thematic Network Structure

Conclusion

From the results of the study, it has been concluded that there is an upsurge trend of publications in the domain of 'Strategic Leadership in Healthcare.' The leading documents in are presented on the basis of maximum citations contributing in the literature of concerned

subject area. The most frequent keywords used by the authors in this domain are shown along with the word growth. With the application of thematic network structure, it has been observed that the area of theme which is having a scope of development in future is the combination of Leadership, Healthcare and Management. Thus, it is proved that there is emergence of the strategic leadership in the healthcare sector.The results of the study would help the current and future authors and researchers to understand the emergence of strategic leadership in the healthcare sector.

Strategic leadership in healthcare institutions also necessitates being open for change and developing new strategies. Embracing change requires tackling healthcare workers who resist change. For this reason, the leader should explain the vision to the employees, get them to adopt such vision and guarantee that the employee acts in line with the vision.

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