Journal of Public Value and Administrative Insight
Journal Homepage: http://readersinsight.net/JPVAI

Research Article

Contributions, links, association strength and collaborations in SERVQUAL & healthcare research

Javed Ali[1]*, Ahmad Jusoh[2], Norhalimah Idris[3], Naveed Akhtar Qureshi[4], Nasrullah[5], Alhamzah F. Abbas[6], Nabeel Nisar[7]

[1,4,5,7]Department of Business Administration, Sukkur IBA University, Sindh, Pakistan
[2,3,6]Azman Hashim International Business School, Universiti Teknologi Malaysia.

*Corresponding Author email: javedali@iba-suk.edu.pk

Submitted: 28 October 2021 *Revised: 05 January 2022* *Accepted: 14 January 2022*

ABSTRACT

Purpose: The purpose of the paper was to explore the central themes of the search i.e., 'SERVQUAL & Healthcare' and the link associations between them. It also aimed at identifying the valuable contributions made by authors, journals, countries, and institutions in 'SERVQUAL & Healthcare' search around the world. **Methodology:** Data was extracted from 2010 to 2020 by using Scopus database and analysed through VOSviewer software and MS Excel. PRISMA guidelines were followed to screen and select the records. **Findings:** Results revealed International Journal of Health Care Quality, Chahal, H., Pradhan, B.B., and Samal, A, India and King Abdul Aziz University were the leading journal, authors, country, and institution according to the publication of documents, respectively. Huang C.-Y. and Li M., and United States were the most collaborated and associated authors and country to other authors and countries according to their total link strength score. The most prominent keywords found were healthcare, service quality, SERVQUAL and patient satisfaction. **Originality:** The current study, to best of our knowledge, was the first of its kind in mapping the 'SEVQUAL & Healthcare' search. This will aid in shaping and understanding the central themes and set the future research directions for the researchers and practitioners.

Keywords: *SERVQUAL; Healthcare Services; Service Quality; Bibliometric Analysis*

1. INTRODUCTION

Study was designed top present the bibliometric mapping of 'SERVQUAL & Healthcare'. SERVQUAL was considered as prominent and recognize measurement scale for service quality in a service setting. It was developed by Parasuraman et al., (1988). Initially, it was named as RATER with 10 dimensions, it was modified and changed to SERVQUAL with five dimensions of service quality. These dimensions are Tangibles, Reliability, Responsiveness, Assurance and Empathy.

Healthcare like any other service context contain the complex and complicated array of activities. Patients being consumers of healthcare services expect the desired results from the service provided by the healthcare service providers such as doctors, nurses, and support staff. A lot of attention has been put to healthcare sector recently because of its importance and effect on the economy and population of countries, reducing health disparities, and provide valuable data and information to the policy makers (Muir et al,

https://doi.org/10.31580/jpvai.v4i4.2408

2010). Also because of private and public healthcare streams, competition has been increased in the industry which has forced healthcare organizations to increase the quality and overcome the deficiencies (Kalaja et al., 2016).

Different researchers have performed bibliometric analysis on service quality, but this paper has focused on the links and associations between SERVQUAL and Healthcare which has made it different from others. Ali et al., (2021) conducted bibliometric analysis of service quality in the context of healthcare. They identified the records till 2019 and conducted bibliometric analysis of service quality in healthcare. De Castro Junior et al., (2013) explored different articles on databases of EBSCO and ProQuest and performed bibliometric analysis of service quality. Shi et al., (2020) examined the service quality of education services, medical services, transportation services and financial services from 2000 to 2019 in China. It was the bibliometric study and articles were extracted from CNKI (https://www.cnki.net/).

The current study of bibliometric analysis intended to answer the following research questions.

RQ 1. What was the publication output regarding 'SERVQUAL & Healthcare' research till 2020?
RQ 2. Who were the most influential authors and journals in 'SERVQUAL & Healthcare' research till 2020?
RQ 3. Which were the most prominent countries, and institutions in 'SERVQUAL & Healthcare' research?
RQ 4. What were the associations and collaborations among authors, countries, and keywords related to 'SERVQUAL & Healthcare' research?

2. METHODS

The current paper presented the bibliometric analysis of 'SERVQUAL in Healthcare Service' search from 2010 to 2020. The bibliometric analysis was one of the quantitative techniques which was helpful in visualizing and synthesizing the literature of a particular piece of research work (Khudzari et al., 2018; Alsharif, Salleh and Baharun, 2020; Alsharif et al., 2021). The search was carried out in Scopus database because it was the largest database than others (Khudzari et al., 2018; Ali, Jusoh, Idris, et al., 2021a, 2021b). It also offered wide-ranging coverage of the subjects than that of MedLine, Web of Sciences and so on (Mongeon and Paul-Hus, 2016; Khudzari et al., 2018; Ali et al., 2021).

2.1. Search Strategy

We followed the guidelines of PRISMA approach to screen the documents for analysis. Documents for the analysis were extracted in June 2021. The search was begun with central theme of the search (e.g., SERVQUAL & Healthcare). Inclusion and exclusion criterion was applied during the search. The year 2021 was excluded from the data. Documents were limited to articles only. The source of documents were journals only, and the language of the documents selected was English. After applying those threshold or filters, exact keywords related to SERVQUAL, and Healthcare were selected to scrutinize the documents for selection (Refer the complete search string mentioned in Appendix for exact keyword

applied). Search flow based on PRISMA guidelines (Moher et al., 2019) was mentioned in **Error! Reference source not found.**1. The final number of documents extracted was 529.

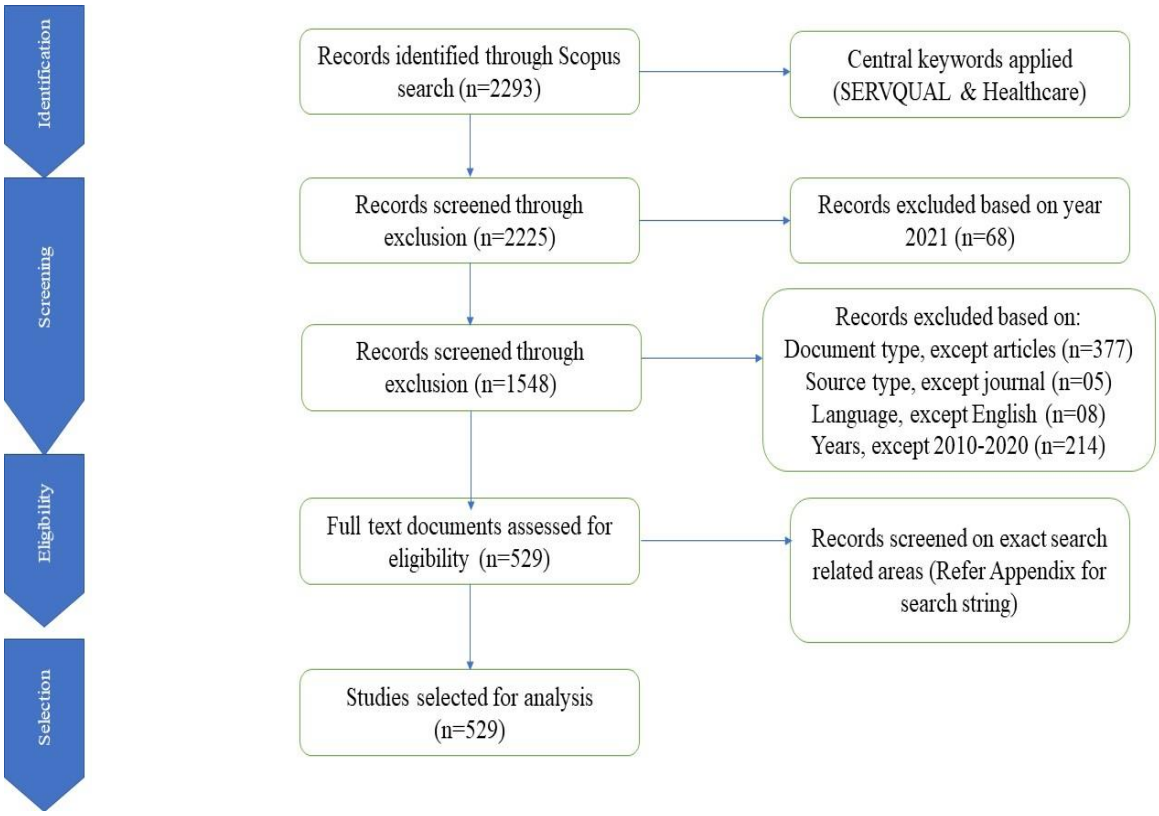

Fig. 1. The search flow diagram following PRISMA guidelines.

3. ANALYSIS AND RESULTS

Document were extracted from Scopus and with the help of VOSviewer (Centre for Science and Technology Studies, Leiden University, Netherlands), bibliometric maps containing links were created. This software was user-friendly and helpful in creating bibliometric maps. Bibliometric maps containing links represent collaborations among authors, countries, and keywords. Authors, countries, keywords, and are considered as items in the software. These items are associated with the links and their strength which is represented with positive numerical value (Van Eck and Waltman, 2013, 2017). The higher the value, the higher the link strength between two items (Van Eck and Waltman, 2013, 2017). The Association strength was selected as the basis of analysis because of visualizing the association between the items (keyword, authors, countries).

3.1. RESEARCH OUTPUT

Publication output of our search regarding 'SERVQUAL & Healthcare' showed gradual increase throughout the years. Search was limited from 2010 till 2020. The number of publications increased from 2010. The year 2020 witnessed 101 number of publications in a single year. it indicated that 'SERVQUAL & Healthcare' was growing and would be growing in future as per the trend appeared (**Error! Reference source not found.**2).

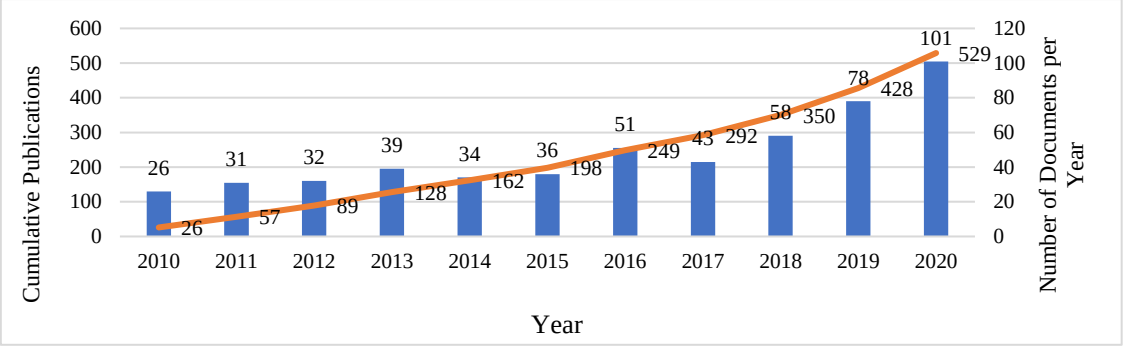

Fig. 2. Publication output per year from 2010 to 2020.

3.2. Prolific Authors and Journals

We analyzed the most prolific and productive authors and journals in 'SERVQUAL & Healthcare' search. Among the top ten journals, International Journal of Health Care Quality Assurance was found at the top with total publications of 42 with 2.1 CiteScore (2019) and it was published by Emerald. "Private healthcare quality: Applying a SERVQUAL model" was its most cited paper. It was cited 125 times. It was followed by International Journal of Healthcare Management, International Journal of Environmental Research and Public Health and others which were mentioned in **Error! Reference source not found.**1.

We also identified top ten authors in chosen search criteria. Chahal, H., Pradhan, B.B., and Samal, A. were leading at the top with 05 publications each. All of them were from India. Chahal, H. had 05 h-index and 163 total citations. Both Pradhan, B.B. and Samal, A. had 01 h-index and 02 total citations each. They were followed by other top eight authors mentioned in **Error! Reference source not found.**2.

Table 1. List of the most productive journals.

No:	Journal	TP	Cite Score 2019	The most cited article (reference)	Times Cited	Publisher
1	International Journal of Health Care Quality Assurance	42	2.1	Private healthcare quality: Applying a SERVQUAL model	125	Emerald
2	International Journal of Healthcare Management	15	2.5	Patient satisfaction with health care services; an application of physician's behavior as a moderator	16	MDPI
3	International Journal of Environmental Research and Public Health	12	3.4	Measuring patient's satisfaction of healthcare services in the UAE hospitals: Using SERVQUAL	25	Tyler and Frances
4	International Journal of Pharmaceutical and Healthcare Marketing	12	1.3	Measuring perceived service quality for public hospitals (PubHosQual) in the Indian context	82	Emerald
5	TQM Journal	12	4.3	Developing and validating a total quality management model for healthcare organisations	30	Emerald
6	Expert Systems with Applications	11	12.7	A combined fuzzy AHP and fuzzy TOPSIS based strategic analysis of electronic service quality in healthcare industry	263	Elsevier

No:	Journal	TP	Cite Score 2019	The most cited article (reference)	Times Cited	Publisher
7	Journal of Health Management	11	1.0	Patients' Perception of Service Quality of Health Care Services in India: A Comparative Study on Urban and Rural Hospitals	18	SAGE
8	Indian Journal of Public Health Research and Development	10	0.1	Increasing inpatient service quality of using Quality Function Deployment method in Nene Mallomo Hospital of Sidrap Regency, Indonesia	16	INDIAN JOURNAL
9	Service Industries Journal	10	6.4	The impact of high-performance work systems in the health-care industry: Employee reactions, service quality, customer satisfaction, and customer loyalty	80	Tyler and Frances
10	Total Quality Management and Business Excellence	9	6.2	An evaluation of SERVQUAL and patient loyalty in an emerging country context	46	Tyler and Frances

Table 2. List of the most influential authors as per their number of publications.

No:	Author	Scopus Author ID	Year of 1st publication*	TP	h-index	TC	Current affiliation	Country
1	Chahal, H.	14038838400	2010*	5	5	163	University of Jammu, Jammu.	India
2	Pradhan, B.B.	36142226500	2017***	5	1	2	Siksha O Anusandhan (Deemed to be University), Bhubaneswar.	India
3	Samal, A.	57200203658	2017*	5	1	2	Siksha O Anusandhan (Deemed to be University), Bhubaneswar,	India
4	Büyüközkan, G.	6602576011	2011*	4	3	497	Galatasaray Üniversitesi, Istanbul,	Turkey
5	Kumari, N.	40461505800	2010**	4	4	130	University of Jammu, Jammu,	India
6	Ahmed, S.	56098522600	2016**	3	3	41	World University of Bangladesh, Dhaka	Bangladesh
7	Akbar, F.H.	57200387760	2019*	3	2	13	Department of Dental Public Health, Makassar	Indonesia
8	Arab, M.	57196780335	2012**	3	3	107	Tehran University of Medical Sciences, Tehran,	Iran
9	Asif, M.	7209125348	2019**	3	3	37	School of Public Affairs, Zhejiang University, Hangzhou	China

No:	Author	Scopus Author ID	Year of 1st publication*	TP	h-index	TC	Current affiliation	Country
10	Atinga, R.A.	35931860700	2011*	3	3	108	University of Ghana Business School, Accra	Ghana

** First Author* *** Second Author* **** Third Author*

3.3. Prominent Countries and Institutions

We identified the most productive and prominent countries and institutions that had contributed to the development of 'SERVQUAL & Healthcare' research. Results revealed that India was the leading country with 86 number of publications. It was followed by United States (66), Iran (49), Malaysia (44), China (38) and others mentioned in **Error! Reference source not found.**3. Among the institutions, King Abdul Aziz University of Saudi Arabia was leading all other institutions with 07 number of publications. It was followed by Shiraz University of Medical Sciences (06), Tehran University of Medical Sciences (06), The University of Jordon (06), and others mentioned in **Error! Reference source not found.**4.

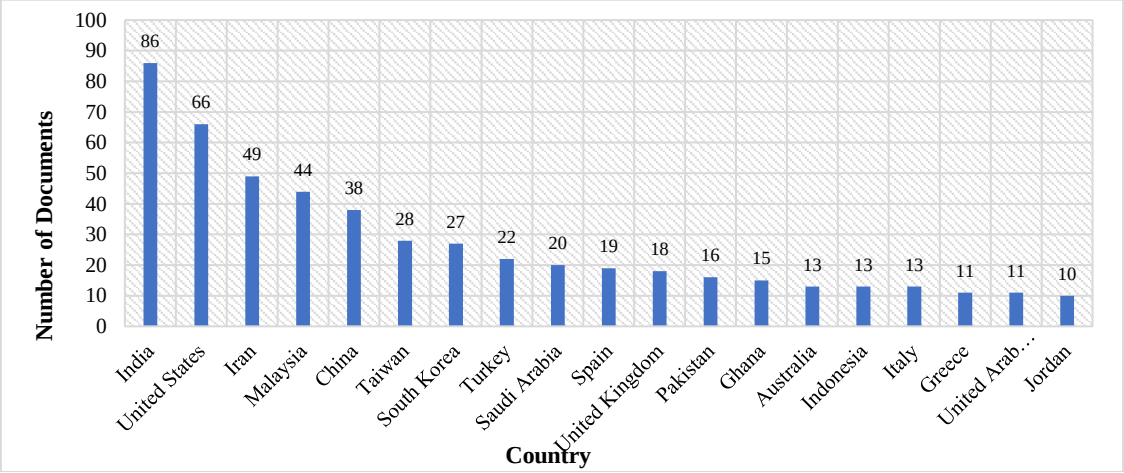

Fig. 3. Graph showing the most productive countries as per their publications.

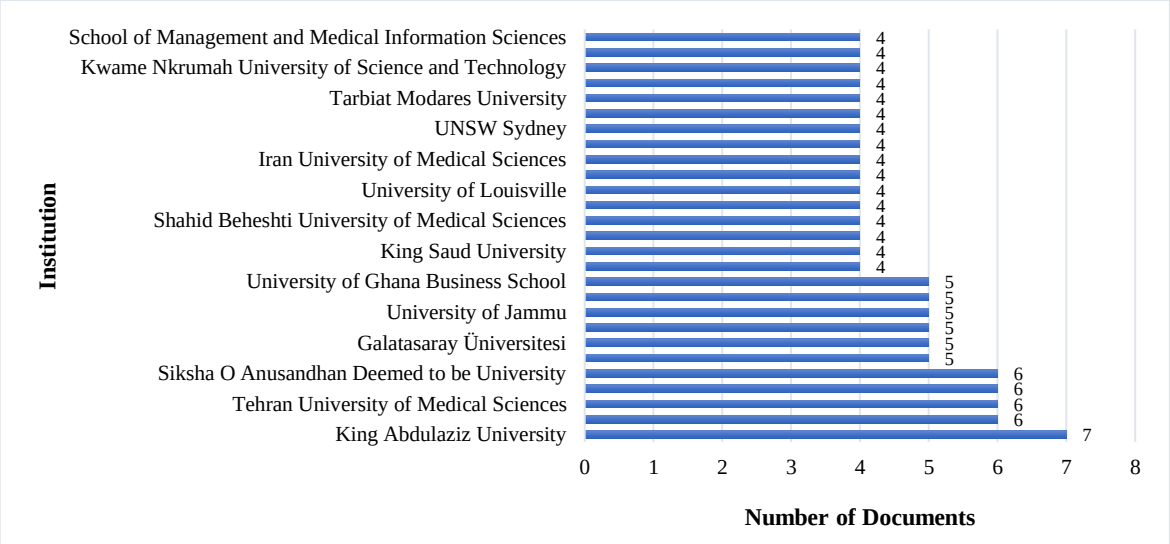

Fig. 4. Graph showing the most influential institutions across the globe.

3.4. Bibliometric Maps

We created bibliometric maps of the data extracted. The current study comprised of 529 documents. Maps comprised of co-authorship analysis of authors and countries, and co-occurrence analysis of author keywords, bibliographic coupling of documents and co-citation analysis.

3.4.1. Co-authorship (Authors)

The co-authorship analysis demonstrated the links between items (e.g., authors) who had coauthored the published documents. It was denoted with the link strength. Therefore, the total link strength (TLS) displayed the total co-authorship strength of one author with the other (Van Eck and Waltman, 2017).

We applied certain thresholds while executing Co-authorship analysis. Maximum number of authors per document was 25. Minimum number of documents of an author was 01, and minimum number of citations was remained 00. All the 1588 items (e.g., authors) met the threshold, but analysis included 1000 items.

Results showed that Huang C.-Y. and Li M. had the highest total link strength (TLS) of 21, respectively and both had published 03 documents. The former had 41 citations whereas the latter had 43 citations. They were followed by Arab M. (TLS, 18; Documents, 04; Citations, 124), Zhao P. (TLS, 18; Documents, 02; Citations, 41) and Zhao Y. (TLS, 17; Documents, 03; Citations, 70). List of top 40 authors, based on TLS ranking, found in co-authorship was mentioned in **Error! Reference source not found.**3.

Maps of co-authorship analysis showed both not-connected set (n=1000) and connected set of items (n=30). The former map was created by modifying the values of attraction to 03 and repulsion to 01 so that visualization could be shown better (**Error! Reference source not found.**5). The latter map was developed at default values set by the software (**Error! Reference source not found.**6). The map of not-connected set showed the prominence of authors having higher TLS as compared to others. Similarly, map of connected set showed the prominence of authors who were related to larger set having higher TLS.

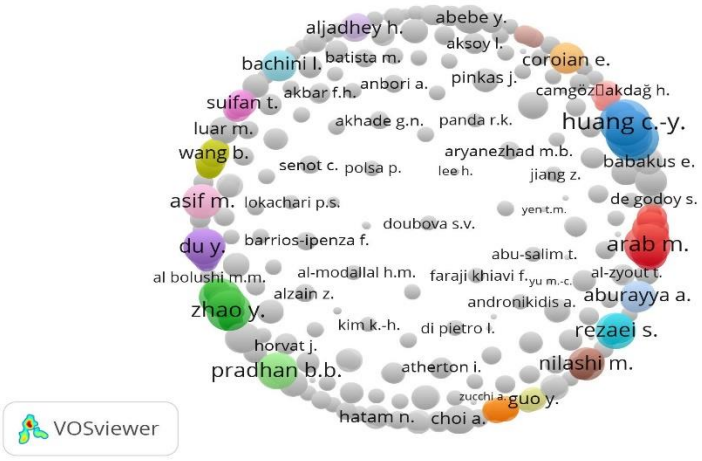

Fig. 5. Screenshot showing the network visualization of co-authorship (authors) for all items (n=1000) as per TLS.

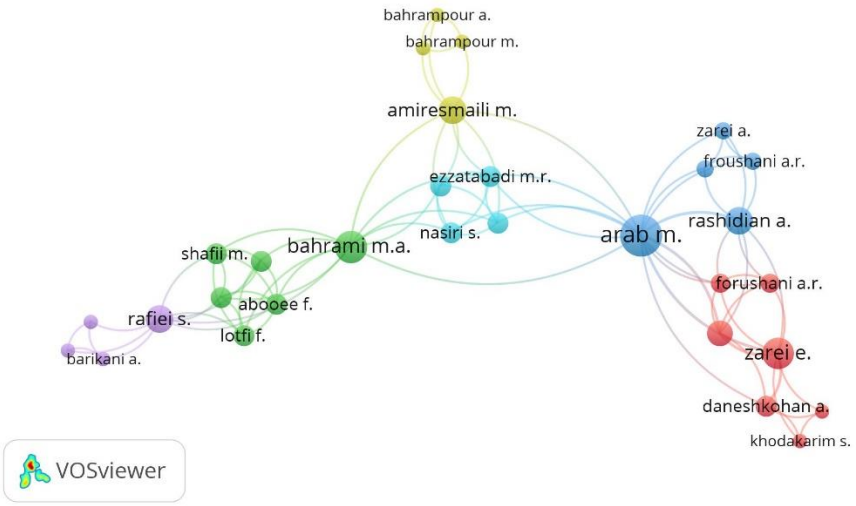

Fig. 6. Screenshot showing the network visualization of co-authorship (authors) for the largest connected set (n=30) as per TLS.

Table 3. List of authors having highest TLS.

Item (Author)	Documents	Citations	TLS	Item (Author)	Documents	Citations	TLS
Huang C.-Y.	3	41	21	Tan Q.-Z.	1	34	13
Li M.	3	43	21	Wang W.	2	11	13
Arab M.	4	124	18	Wang X.-R.	1	34	13
Zhao P.	2	41	18	Washburn D.J.	2	11	13
Zhao Y.	3	70	17	Wu X.-H.	1	34	13
Li Z.	2	12	15	Yang H.-L.	1	34	13
Pradhan B.B.	5	2	14	Zhu Y.-C.	1	34	13
Rezaei S.	3	28	14	Bahrami M.A.	2	35	12
Samal A.	5	2	14	Nilashi M.	2	54	12
Asif M.	4	39	13	Aburayya A.	2	13	11
Chen S.-Y.	1	34	13	Al Marzouqi A.	2	13	11
Du Y.	2	11	13	Zarei E.	3	28	11
He S.-H.	1	34	13	Danet A.	2	10	10
Hussain A.	3	37	13	Fan L.	2	17	10
Lee S.	3	15	13	Hajizadeh M.	2	21	10
Lowrie D.B.	1	34	13	March J.C.	2	10	10
Lu H.-Z.	1	34	13	Prieto M.A.	2	10	10
Lu X.-C.	1	34	13	Shi H.	2	24	10
Maddock J.E.	2	11	13	Suess A.	2	10	10
Shayiti M.	1	34	13				

3.4.2. Co-authorship (Countries)

We analyzed the co-authorship analysis for countries. It showed the links among countries that had collaborated studies together. The closer these countries will be, the stronger their relatedness will be (Van Eck and Waltman, 2013, 2017). Also, the thicker links between them, the stronger the link between them (Van Eck and Waltman, 2013, 2017).

We applied different thresholds while mapping the data. The maximum number of documents of a country was 25, minimum number of documents of a country was 01 and minimum number of citations of a country was 00. Thus, 81 items (countries) met the threshold except one which was not representing any country and was excluded. Therefore, the analysis was comprised of 80 items (countries).

Results showed the prolific contribution and collaboration from different countries as per their TLS score. United States was leading all other countries involved in the chosen search area with highest TLS (52) with 66 documents and 1136 citations. It was followed by China, Malaysia, United Kingdom, and others mentioned in **Error! Reference source not found.**4.

The normalization method of analysis was association strength. We created both not-connected set and connected one. The not-connected set comprised of all 80 items. The layout values were slightly changed as attraction to 05 and repulsion to 01 (**Error! Reference source not found.**7). The largest connected set comprised of 70. The layout was modified at attraction (06) and repulsion (02) by keeping minimum size of clusters at 03 (**Error! Reference source not found.**8). Both maps showed the dominance of items (countries) which had higher total link strength (TLS) as compared to other countries.

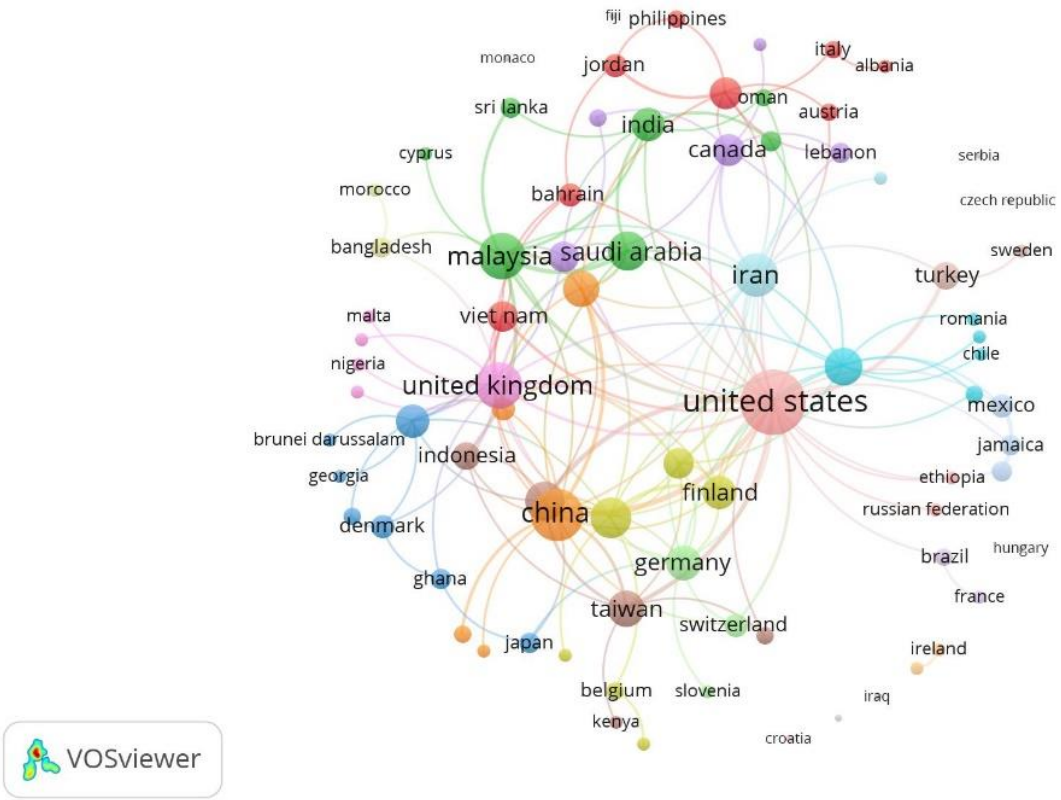

Fig. 7. Screenshot showing the network visualization of co-authorship (countries) for all items (n=80) as per TLS.

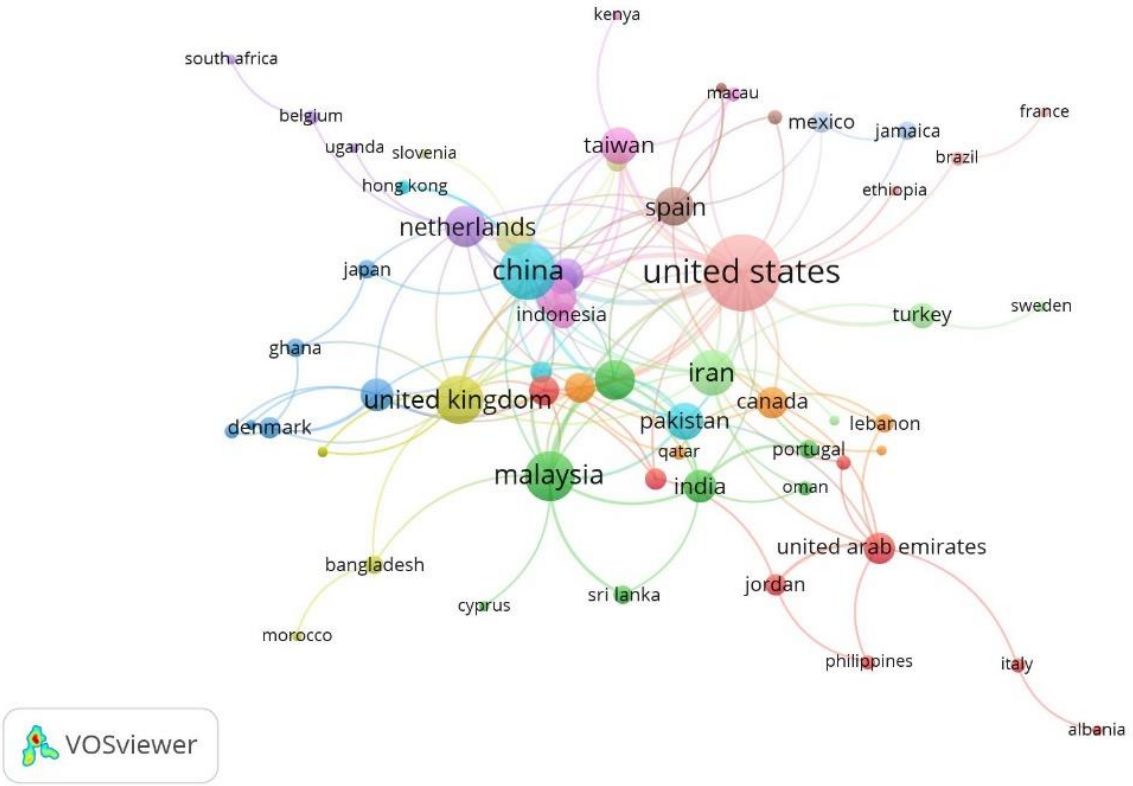

Fig. 8. Screenshot showing the network visualization of co-authorship (countries) for the largest connected set (n=70) as per TLS.

Table 4. List of countries with high and low TLS.

Countries with highest TLS					Countries with lowest TLS				
S/No	**Country**	**Documents**	**Citations**	**TLS**	**S/No**	**Country**	**Documents**	**Citations**	**TLS**
01	United States	66	1136	52	01	Croatia	03	18	00
02	China	38	618	29	02	Czech Republic	01	27	00
03	Malaysia	44	612	22	03	Fiji	02	02	00
04	United Kingdom	18	193	21	04	Hungary	02	02	00
05	Iran	49	527	19	05	Iraq	02	01	00
06	Netherlands	09	64	15	06	Monaco	01	11	00
07	Saudi Arabia	20	254	14	07	Poland	03	18	00
08	South Korea	27	509	14	08	Serbia	01	27	00

3.4.3. Co-occurrence (Author Keywords)

To explore the links and association among the keywords, we performed the co-occurrence analysis. Different threshold was applied. Minimum occurrence of a keyword was set at 02. Out of 1136 keywords, 244 met the threshold. To make the visualization of map better, layout values were set as attraction at 05 and repulsion at -01. Unit of analysis was based on association strength and weight assigned to the items was total link strength. The

minimum size of the cluster was set at 12. Screenshot of the co-occurrence map for connected set of author keywords was shown in **Error! Reference source not found.**9.

Results revealed the prominence of keywords based on their association strength with the occurrence of other keywords. The occurrence of 'healthcare' was 257 times with total link strength of 735. It was followed by 'service quality' (occurrence, 178; TLS, 537), 'SERVQUAL' (occurrence, 167; TLS, 473), and 'patient satisfaction' (occurrence, 82; TLS, 286).

Moreover, we identified the link strength between SERVQUAL and other important keywords. It indicates the occurrence of these keywords with that of SERVQUAL. Firstly, we highlighted the link strength between SERVQUAL and Patient-related keywords (**Error! Reference source not found.**5). The highest link strength was found between SERVQUAL and 'Patient Satisfaction'. Secondly, we identified the link strength between SERVQUAL and Hospital-related keywords (**Error! Reference source not found.**6). The highest link strength found between SERVQUAL and 'Private Hospital and Corporate Hospital'. Lastly, link strength between SERVQUAL and Healthcare-related keywords were highlighted (**Error! Reference source not found.**7). The highest link strength was found between SERVQUAL and Healthcare.

Table 5. List showing the link strength between SERVQUAL and Patient-related keywords.

Item (Keyword)	Link Strength
SERVQUAL - Patient Satisfaction	37
SERVQUAL – Patient	5
SERVQUAL - Patient Perception	4
SERVQUAL - Patient Loyalty	2
SERVQUAL – Outpatient	1
SERVQUAL - Patient Expectation	1

Table 6. List showing the link strength between SERVQUAL and Hospital-related keywords.

Item (Keyword)	Link Strength
SERVQUAL - Private Hospital	3
SERVQUAL - Corporate Hospital	3
SERVQUAL - Public Hospital	2
SERVQUAL - Private and Public Hospital	2
SERVQUAL - Maternity Hospital	2
SERVQUAL - Teaching Hospital	1

Table 7. List showing the link strength between SERVQUAL and Healthcare-related keywords.

Item (Keyword)	Link Strength
SERVQUAL – Healthcare	48
SERVQUAL - Healthcare Quality	9
SERVQUAL - Healthcare Tourism	6
SERVQUAL - Healthcare Service Quality	5
SERVQUAL - Mobile Healthcare	1
SERVQUAL - Healthcare Marketing	1

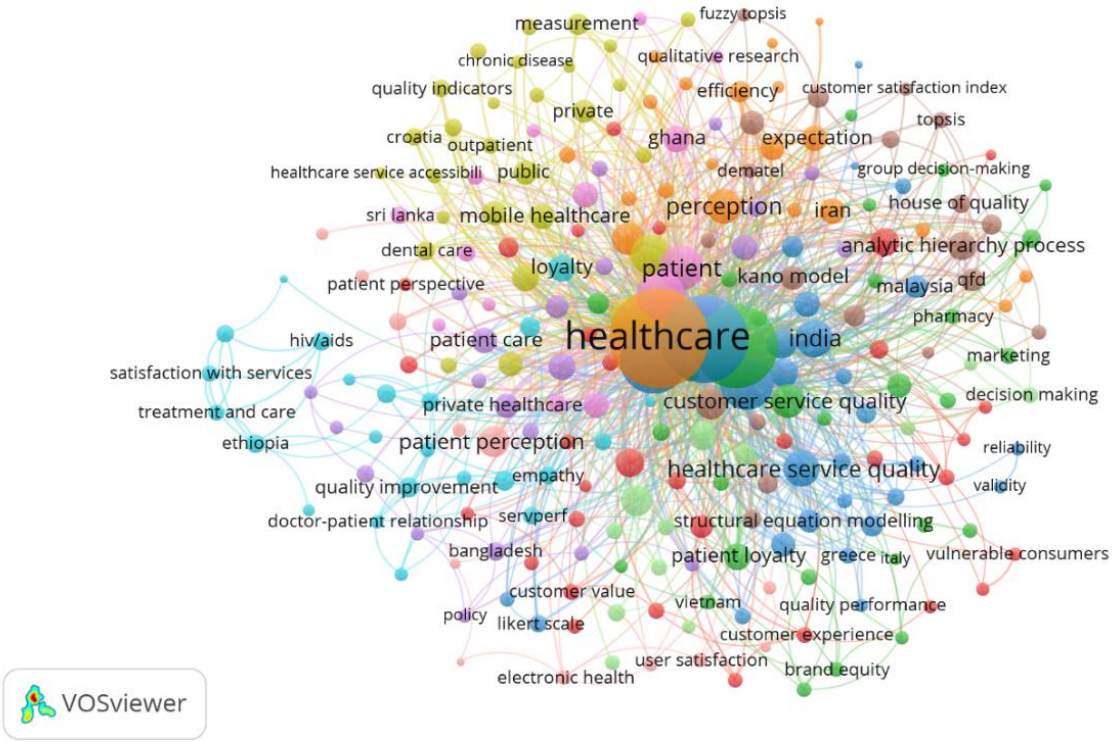

Fig. 9. Screenshot showing the network visualization of Co-occurrence (Author Keywords) for the all connected items (n=244) as per TLS.

4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The current study was limited to the only one measurement scale of service quality that was SERVQUAL. The search was also limited to only one context that was Healthcare. The timeframe was chosen from 2010 to 2020 and excluded the year 2021 which might miss to include the important aspects of SERVQUAL and Healthcare in the analysis. Selected thresholds were applied while performing the bibliometric analysis and left other optional which might have limited our findings.

Different avenues for future research have been suggested. Other services contexts for example education, hospitality, transportation or banking and others can be used instead of healthcare. Future studies can rather narrow down the search by focusing the specific dimensions of SERVQUAL (e.g., tangibles, reliability, responsiveness, assurance and empathy). Similarly, the healthcare services can be narrowed down to its types (e.g., public, private or specialized healthcare) and search can be limited to one country or journal source to cover the comprehensive understanding of searched terms or keywords.

5. CONCLUSION

The study was designed to map the 'SERVQUAL' literature in 'Healthcare' from 2010 till 2020. Bibliometric analysis was based on 529 documents screened via PRISMA guidelines and extracted from Scopus. Publication output was identified. The prominent and influential authors, countries, institutions, and journals as per the publications of documents were highlighted. The links and their association strength were identified

among authors, countries, and author keywords with the help of Co-authorship and Co-occurrence analysis techniques in VOSViewer software.

Conflict of Interest

No conflict of interest was declared by the authors.

Funding Declaration

Authors have not received any funding for the publication of this paper.

Acknowledgements

Author gratefully thanks and acknowledges the fruitful contributions of co-authors in completing the study.

Reference:

Ali, J., Jusoh, A., Idris, N., *et al.* (2021a) 'Everything is Going Electronic, so do Services and Service Quality: Bibliometric Analysis of E-Services and E-Service Quality', *iJIM*, 15(18), p. 149.

Ali, J., Jusoh, A., Abbas, A. F., *et al.* (2021) 'Global Trends of Service Quality in Healthcare: A bibliometric analysis of Scopus Database.', *Journal of Contemporary Issues in Business and Government Vol*, 27(1).

Ali, J., Jusoh, A., Idris, N., *et al.* (2021b) 'Nine Years of Mobile Healthcare Research: A Bibliometric Analysis.', *International Journal of Online & Biomedical Engineering*, 17(10).

Alsharif, A. H. *et al.* (2021) 'Neuroimaging Techniques in Advertising Research: Main Applications, Development, and Brain Regions and Processes', *Sustainability* . doi: 10.3390/su13116488.

ALSHARIF, A. H., SALLEH, N. O. R. Z. M. D. and BAHARUN, R. (2020) 'BIBLIOMETRIC ANALYSIS', *Journal of Theoretical and Applied Information Technology*, 98(15).

de Castro Junior, D. F. L. *et al.* (no date) 'Quality of Service: a study in databases bibliometric international'.

Van Eck, N. J. and Waltman, L. (2013) 'VOSviewer manual', *Leiden: Univeristeit Leiden*, 1(1), pp. 1–53.

Van Eck, N. J. and Waltman, L. (2017) 'Citation-based clustering of publications using CitNetExplorer and VOSviewer', *Scientometrics*, 111(2), pp. 1053–1070.

Kalaja, R., Myshketa, R. and Scalera, F. (2016) 'Service quality assessment in health care sector: the case of Durres public hospital', *Procedia-Social and Behavioral Sciences*, 235, pp. 557–565.

Khudzari, J. M. *et al.* (2018) 'Bibliometric analysis of global research trends on microbial fuel cells using Scopus database', *Biochemical Engineering Journal*, 136, pp. 51–60.

Moher, D. *et al.* (2019) 'Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev. 2015; 4 (1): 1–9', *Rev Bras Farm Hosp Serv Saude*, 10(2), p. 477.

Mongeon, P. and Paul-Hus, A. (2016) 'The journal coverage of Web of Science and Scopus: a comparative analysis', *Scientometrics*, 106(1), pp. 213–228.

Muir, K. W., Bosworth, H. B. and Lee, P. P. (2010) 'Health Services Research and How It Can Inform the Current State of Ophthalmology', *American journal of ophthalmology*, 150(6), pp. 761–763.

Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1988) 'Servqual: A multiple-item scale for measuring consumer perc', *Journal of retailing*, 64(1), p. 12.

Shi, H. *et al.* (2020) 'Research of Service Quality in China: A Bibliometric Analysis', in *2020 The 11th International Conference on E-business, Management and Economics*, pp. 211–216.

APPENDIX-I

THE SEARCH STRING:

servqual AND healthcare AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (EXCLUDE (PUBYEAR, 2021)) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012) OR LIMIT-TO (PUBYEAR, 2011) OR LIMIT-TO (PUBYEAR, 2010)) AND (LIMIT-TO (EXACTKEYWORD, "SERVQUAL") OR LIMIT-TO (EXACTKEYWORD, "Health Care") OR LIMIT-TO (EXACTKEYWORD, "Hospitals") OR LIMIT-TO (EXACTKEYWORD, "Healthcare") OR LIMIT-TO (EXACTKEYWORD, "Health Services") OR LIMIT-TO (EXACTKEYWORD, "Hospital") OR LIMIT-TO (EXACTKEYWORD, "Health Service") OR LIMIT-TO (EXACTKEYWORD, "Healthcare Services") OR LIMIT-TO (EXACTKEYWORD, "Private Hospital") OR LIMIT-TO (EXACTKEYWORD, "Health Care Facility") OR LIMIT-TO (EXACTKEYWORD, "Hospital Service") OR LIMIT-TO (EXACTKEYWORD, "Hospital Sector") OR LIMIT-TO (EXACTKEYWORD, "Hospitals, Public") OR LIMIT-TO (EXACTKEYWORD, "SERVQUAL Model") OR LIMIT-TO (EXACTKEYWORD, "Health Care System") OR LIMIT-TO (EXACTKEYWORD, "Health Services Research"))