



Organizational effectiveness: A bibliometric investigation

Dr. Rajni Dewan

Assistant Professor in Commerce, RKSD College of Education, Kaithal, Haryana, India,

E-mail: rajnifeb19@gmail.com

Dr. Meenu Saini

Assistant Professor, Department of Business Administration, National Institute of Technology, Kurukshetra, Haryana, India, E-mail: mnsn4390@gmail.com

Baljit Singh

Assistant, Kurukshetra University, Kurukshetra, Haryana, India

Rahul Kumar

Research Scholar, Department of Mechanical Engineering, Punjabi University, Patiala, Punjab, India,

Email: rahulkumar.ace@gmail.com

Sushma Rani

Research Scholar, Department of Mechanical Engineering, National Institute of Technology, Kurukshetra, Haryana, India, Email: sushma.nolia@gmail.com

Simran Nimma

M.A. English, Deptt. of English, Kurukshetra University, Kurukshetra, Haryana.

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Abstract

Organizational effectiveness (OE) is the image of how effective an organization is in accomplishing the outcomes the organization intends to produce. Investigation on the OE has acquired drive lately. The current investigation plans to recognize significant subsidiaries, major domains, recent dynamics, and propose future examination bearing in the area of the OE. This paper adopted a bibliometric investigation (BI), network analysis (NA), and content analysis (CA) on a sample of 763 studies extracted from the Web of Science (WoS) dataset to analyze the exploration exercises that have occurred on the theme of OE. Most persuasive papers are distinguished depending on reference analysis. The co-citation network is created to check the scholarly design of the research area. Through source co-citation three research clusters have been identified. Thematic evolution and keyword analysis are used to identify changes throughout the time period and different research themes of this area. The present study reveals that the significant concentration in this field is around management and organization theory, effectiveness, leadership, model, performance, and job satisfaction. Also, this investigation distinguished the research interval and proposed an actionable research inclination for the future.

Keywords : Organizational effectiveness, Bibliometric investigation, Web of Science, Biblioshiny, VOSviewer

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1 Introduction

The current literature on organizational effectiveness (OE) is broad and set apart by a variety of perspectives. The absence of consistency in understanding of OE, through more than 5 decades of exploration regarding this matter, is obvious (Sharma and Singh 2019). The "screwy issue" of OE research does not end with an absence of agreement on its definition (Forbes 1998; Henri 2004; Cameron and

Whetten, 2013). In modern studies, an absence of new points regarding the matter of estimation of OE is striking. Henri, 2004 marked an absence of assembly across methods of estimation adequacy also. Academics feel uneasiness and powerlessness to lead a similar investigation on OE dependent on a usual set of measures in light of the obvious non-consensual viewpoints and absence of a general framework (Anspach 1991; Cameron and Whetten 2013;



Cameron et al. 2014; Quinn et al. 2015). Georgopoulos and Tannenbaum (1957) mentioned OE as “generally convoluted and least handled”.

OE is one of the most vital variables in all the organizational analysis and the concept of effectiveness is dominant in organizational theories (Otoo 2019). Arnett et al. (2018) to OE as a concept that is inevitable to authoritative management and conduct yet it implies various views to various people (Latemore 2013; Akhtar et al. 2018). Yukl (2008) referred to OE as a multidimensional build that is identified with numerous areas of organizational activities and furthermore characterized it as the degree to which how adequately an association can endure, play out its central goal, accomplish its results, and ready to keep a great monetary position. According to Sharma and Singh (2019), OE can be characterized as the level of accomplishment which estimated comprehensively through a mix of financial, operational, structural, and attitudinal/behavioral measures of participant-led integrated goals that lead to their satisfaction and empower the drawn-out endurance and maintainability of the association. In the present era, complicated performance drivers are faced by organizations, like the globalization of their organizational capacities, the necessity to follow creative strategies, the requirement to construct even more emaciated, generative, but intelligently efficient and effective processes, and to move the focal of their association to become client-driven (Sparrow and Cooper 2014). Steers (2016) considered OE as an obligatory characteristic for the success of any organization. Friedlander and Pickle (1968) said that organizational effectiveness criteria must take into account organizational profitability, employee satisfaction, and societal value. Tahsildari et al. (2015) revealed that employee participation, training, job description and performance appraisal have significant effects on OE. OE has been influenced by employee engagement. It also revealed that achieving OE through employee engagement results in increased productivity and organizational performance (Lafevor and Street, 2016). Otoo (2019) revealed that human resource development interventions have a significant impact on employees’ competencies in increasing OE. A

strong and positive correlation has been found between effectiveness and performance measures (Kumar and Gulati 2009). Kataria et al. (2014) found that work engagement in terms of power, incorporation, and dedication has a significant positive impact on OE. The proper integration of organizational and self-motivation will helpful in enhancing the effectiveness and efficiency of employees (Yuliansyah et al. 2019). Ashraf and Abd Kadir (2012) reviewed the main four models of OE namely the goal approach, the system approach, the process approach, and the strategic constituency approach. A conceptual unified model would be contributed significantly to OE-related research in a more meaningful way (Sharma and Singh 2019).

The existing reviews have been focused on different aspects of OE. For instance, definition (Arnett et al. 2018; Sharma and Singh 2019), approaches (Ashraf et al. 2011; Sharma and Singh 2019), and performance indicators (Friedlander and Pickle, 1968; (Yukl 2008; Tahsildari and Shahnaei 2015). Due to increasing relevance, it is necessary to analyze and compile the existing literature on this section in recent years (Durán et al. 2017). This investigation recognizes the major areas and prevalent dynamics of OE. A bibliometric investigation was used to recognize the publication patterns and intellectual structure in this area.

1.1 Rationale for the study

OE as a concept is important to organizational management and behavior (Arnett et al. 2018). The existing literature review has been focused on the different aspects of OE like definitions, approaches, models, performance indicators etc. This area of research is untouched by the bibliometric investigation means there is still a lack of comprehensive bibliometric investigation focusing on OE research. Bibliometric is “the quantitative study of physical published unit, or of bibliographic units, or of the surrogates for either” (Broadus, 1987 p. 376). A detailed bibliometric based analysis of OE research fills a key gap in rigidity, orderly and objectively examining how OE research has changed over time (Ruhanen et al. 2015). This investigation recognizes the major domain and prevalent dynamics of OE and suggests future research direction. Through bibliometric investigation, researchers recognize the publication patterns



and intellectual structure in the effective area of the organization. By understanding the importance of OE, the researcher concludes highly valuable to conduct a bibliometric analysis of this area. The study addresses the following research questions:

RQ1: To study the recent publication drift in the field of organizational effectiveness.

RQ2: To know the most contributed nations.

RQ3: To know the significant journals in this field.

RQ4: To know the utmost influential author and their collaboration drift.

RQ5: To analyze the most influential works.

RQ6: To analyze the research focus in different periods.

RQ7: To analyze the intellectual structure of research in this field.

RQ8: To recognize the normal topic of exploration streaming among researcher.

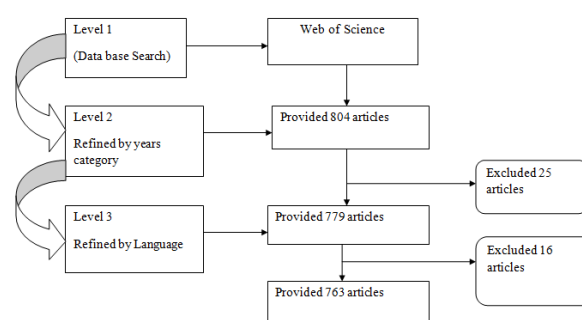
In response to the questions mentioned earlier, we have utilized a blend of bibliometric, network and content analysis. Bibliometric investigation works with the acknowledgment of the present status of exploration and reverence of future courses (Li et al. 2017). Firstly we have used descriptive investigation. We examined the release pattern in OE utilizing a complete release pattern by year, nation, journal, contributing author, and organization. We considered the information for this examination utilizing bibliographic information gathered from the Social Science Citation Index (SSCI), of Web of Science (WoS) dataset. In the subsequent stage, we performed a firm bibliometric investigation in a different manner for example journal impact examination, affiliation analysis, etc. Next for the recognition of the intellectual structure of research on the OE, the citation was performed using Biblioshiny because of its several features that are useful for a thorough bibliometric analysis (Alta fans Masrek, 2021). And co-citation visualization analysis was performed through VOSviewer software because this is flexible, user-friendliness, open-source and compatible with several famous databases including Web of Science (Singh and Vashishtha, 2022).

This comprehensive study gives a general information structure of the research territory. The findings of the present investigation would be helpful for scholars in recognizing the present research structure of the subject and will provide a direction for future research. To the best of the author's knowledge, this is the first investigation to implement bibliometric, network, content analysis, and keyword analysis on organizational effectiveness.

This paper is split into five segments. Segment 1 exhibits the introduction of organizational effectiveness. Segment 2 is related to the methodology used in the present study. Segment 3 contains the descriptive analysis. In segment 4 the bibliometric investigation and content analysis, pursued by keyword analysis are given. Segment 5th of the study is related to the conversation and future inclination, trailed by the finishing section of the present investigation.

2 Research methodology

In present investigation, we have performed a bibliometric investigation on OE with the assistance of tools like Citation Analysis (CA), Co-Citation Analysis (CoC), Key Word Analysis, Co-occurrence analysis, and Co-authorship (CoA) analysis like Fahimnia et al. 2015 and Xu et al., 2018. It is a blend of bibliometric, network analysis and content analysis. WoS data base for narrative investigation, Biblioshiny, VOSviewer have been adopted in research work of bibliometric investigation.



2.1 Fig. 1 Procedure of narrating article search delimiting standards

In the beginning, our early investigation was based on the 'WoS' dataset on 17th May 2022 with our search string "organizational effectiveness". At that point, delimited outcomes utilizing a mix of rejection and inclusion standards. Firstly, searching the whole topic on



'WoS' found 804 papers. Further, we followed four stages to distinguish the most important information for bibliometric examination. From 804 papers, we included information just those relating to last 20 years means 2003-2022. Further, papers in the languages other than English were rejected. At last, an informational collection of 763 papers was acquired for bibliometric investigation. Figure 1 describes the procedure of narrating articles.

2.2 Descriptive investigation

A narrative investigation of 763 articles was done to know the essential progressing pattern of release on topic organizational effectiveness. To answer RQ1 (To study the recent publication drift in the field of organizational effectiveness), RQ2 (To know the most contributed nations) and RQ3 (To know the significant journals in this field.) we analyzed the publication trend in organizational effectiveness using complete publication by year, nations/region, journals, and institution.

2.2.1 Trend of year-wise publication

Figure 2 present the trends of year-wise publication between 2003 and early 2022. It shows a vertical pattern in publication. 2011 and 2021 exhibit the greatest number of publications i.e., 55 and 53 articles respectively. This figure show good rate of publication, for this subject average more than 25 articles published per year after year 2004.

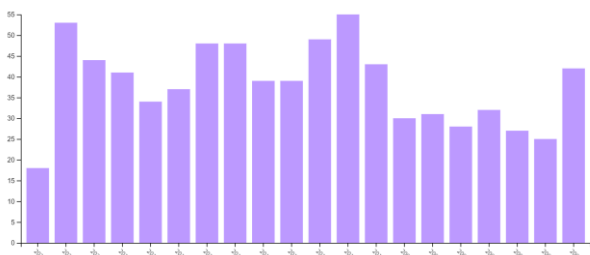


Fig.2 Annual number of articles published on organizational effectiveness. *Note* above figure depends on a literature search acted in WoS on May 17, 2022.

2.2.2 Publishing activity by country

Table 1 shows the main 12 nations adding to organizational effectiveness; with the contribution of at least 16 articles each. It is well recognized that USA is the top assistant in this field, with 364 articles. England and Peoples R

China is respectively second and third contributor. In top 12 contributors India score 11th place with 17 articles in this field.

Table 1 Top contributing nation/region

Nation/Regions	Record count	% of 763	1155
USA	364	47.71%	
England	69	9.04%	
Peoples R China	68	8.91%	
Australia	46	6.03%	
Canada	45	5.90%	
South Korea	36	4.72%	
Taiwan	30	3.93%	
Netherland	28	3.67%	
Germany	24	3.15%	
Turkey	18	2.36%	
India	17	2.23%	
Spain	16	2.10%	

Table 2 Top contributing journals

Source Titles	Record Count
Nonprofit and Voluntary Sector Quarterly	26
International Journal of Human Resource Management	21
Human Resource Management	14
Journal of Business Ethics	13
Sustainability	13
Personnel Review	11
Journal of Management & Organization	10
Journal of Managerial Psychology	10
Leadership & Organization Development Journal	10
Journal of Business Research	9



Table 3 Top contributing institution

S.no	Organizations	Record count
1	University System of Georgia	25
2	State University System of Florida	20
3	University of North Carolina	19
4	Indiana University System	17
5	League of European Research Universities Leru	16
6	Indiana University Bloomington	15
7	State University of New York Suny System	14
8	Texas A M University College Station	14
9	Texas A M University System	14
10	University of Georgia	14

2.2.3 Top contributing journals

Table 2 shows the best 10 diaries in which articles appeared. This indicates the journals with the most articles on organizational effectiveness; their contribution is at least 9 articles each. The leading journals are NVSQ, *IJHRM*, and HRM,. The best 10 journals contribute 168 articles in the complete set of 763.

2.2.4 Top contributing institutions

The list of top contributing organizations is shown in Table 3. The most dynamic associations in this field were University System of Georgia with 25 articles and State University System of Florida with 20 articles, followed by University of North Carolina, Indiana University System and League of European Research Universities Leru, with 19, 17, and 16 respectively. A large portion of the institutions belong to the United States.

3 Bibliometric investigations

Bibliometric investigation is the analysis in which bibliographic material analyze and classify by framing representative summaries of

the extant literature (Donthu et al. 2020). The bibliometric modus allows biographic data from publication dataset to outline primary picture of scientific fields (Zupic and Čater 2015). Bibliometric was enumerated by Pritchard in 1981 as “the application of mathematical and statistical methods to books and other means of communication”. In other words, bibliometric can be portrayed as a powerful method to depict, enumerate, and monitor published research in a dataset and often is adopted in the areas of information science, library science, etc. However these days it has application in social science research, as well (Kumar et al., 2020). Bibliometric investigation is often segregated into two categories by productivity or relationship. The first category transferor realities about the proportion of the impact of measure of research work while second category recognizes the interconnected links among various research areas and researches. Citation and co-citation examination are the most utilized expansive methods to get these outcomes used (Ramos-Rodríguez and Ruíz-Navarro 2004, Kumar et al. 2020).

3.1 Co-authorship analysis

To address RQ4 (To know the utmost influential author and their collaboration drift), we have analyzed the top contributing author and top cooperating authors who have co-wrote more than one article. To quantify the creator impact, the recurrence of creator was examined using Biblioshiny. George E. Michell, George B. Cunningham and Jurgen Wllems are found most contributing authors in the field of OE. Table 4 shows the top ten influential authors. To understand collaboration, we have carried co-authorship investigation of nations and institutions (Zhang et al. 2019). The co-creator network presented in Fig. 3 uncovers the circumstance of cooperation between most productive nations. The USA was highly connected to United Kingdom, Canada, and People R China. The outcomes additionally empowered the distinguishing proof of three clusters, as follow: countries surrounding the USA (the red cluster), green cluster of countries (Malaysia, Pakistan, Turkey, Australia) and blue cluster of Belgium, Canada, Germany, and Switzerland. Texas A & M University, Indiana University, University of Georgia, Arizona State University, Seoul National University and Korea



University were among the top institutions in the world in term of high number of articles on OE published from 2003 to 2022 see Fig 4. Further, among the other Institutions University

of Washington, University Hamburg, Suny Albany University, and Brock University also have a good number of publishing articles on the research area of OE.

Table 4 The utmost influential authors

S.no	Author	Affiliation	Country	TP
1	George E. Mitchell	City University of New York	United State	7
2	George B. Cunningham	Texas A & M University	United State	5
3	Jurgen Willems	Vienna University of Economics and Business	Australia	5
4	Dirk De Clercq	Brock University	Canada	4
5	Jen-te Yang	National Kaohsiung Hospitality College	Taiwan	4
6	Yehuda Baruch	University of Southampton	United Kingdom	3
7	Karin Sanders	University of New South Wales	Australia	3
8	Kristina Lambright	Binghamton University	United State	3
9	Edward E Lawler	University of Southern California	United State	3
10	Alec Levenson	University of Southern California	United State	3

TP total publication

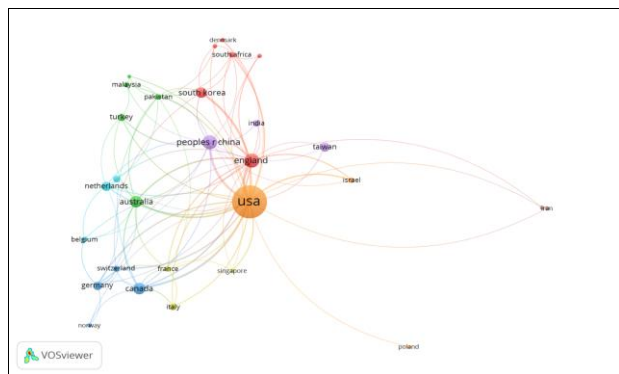


Fig 3 Co-authorship network of countries

3.2 Citation analysis

Research question five *RQ5* (To analyze the most influential works.) means to recognize the most powerful articles on OE. To address this query, we analyzed the citation networks of 763 articles. There are a few techniques that are accessible to measure the effect of a research publication, however references investigation is considered the most popular (Ding and Cronin 2011; Kent Baker et al. 2020). Referencing and citation analysis empower to install intellectual linkages (Appio et al. 2014). Biblioshiny used to deal with citation investigation. Table 5 shows the top research publication by worldwide citation. Worldwide references mean the occasions other work refers to articles in information database including the works of other research areas and discipline. According to global citation, Orlitzky et al., (2003) cultivate the most citation with 3408 citations, followed by Bowen and Ostroff (2004) with 1602 citation.

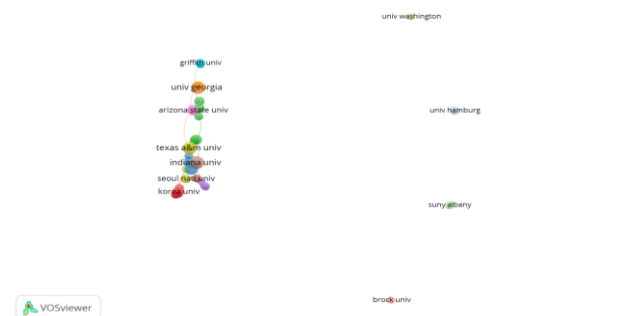


Fig 4 Co-authorship network of Institutions



Table 5 Citation analysis: Top 10 global cited articles

S.no	Paper	Total Citations	TC per Year
1	Orlitzky M, 2003, Organ Stud	3408	170.4
2	Bowen De, 2004, Acad Manage Rev	1602	84.3158
3	Datta Dk, 2005, Acad Manage J	756	42
4	Richard Pj, 2009, J Manage	677	48.3571
5	Schneider B, 2013, Annu Rev Psychol	669	66.9
6	Gilboa S, 2008, Pers Psychol	550	36.6667
7	Lemieux-Charles L, 2006, Med Care Res Rev	498	29.2941
8	Zheng W, 2010, J Bus Res	473	36.3846
9	Tucker Al, 2003, Calif Manage Rev	449	22.45
10	Pfeffer J, 2010, Acad Manage Perspect	391	30.0769

3.3 Thematic evolution

Research question RQ6 (What research focus in different periods?) is addressed by thematic evolution of the OE research. The thematic evolution analysis review the rules that changing, evolutionary relationships, evolution tracks, and evolutionary shifts of the thematic content, strength, and structures that occur over time (Xie et al. 2020). The Sankey diagram shown in Fig. 5 is a type of flow chart. It is mainly used for data visual analysis. In present paper, through Sankey diagram, we visualize the thematic evolution of the OE over the time. Sankey diagram shows topics utilized in papers that are the object of examination keep on changing, particularly from papers that have recently been published when extracted with papers that have been published for a long time (Rusydia et al. 2021).

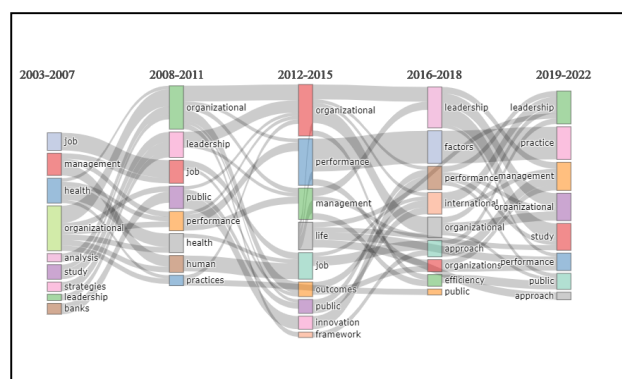


Fig. 5 Thematic evolution of the organizational effectiveness research (2003-2022).

Although, the themes of this exploration are OE, this information exhibits several sub-topics that

broadly utilized. These different sub-themes of OE show in five sections. The very left side reveals portions of the subjects that are broadly utilized from 2003 to 2007, and there are 9 themes listed with various sizes depending on the quantity of use of the topic. Job, management, health, organizational analysis, strategies, leadership and banks are the main research themes of that time. The subsequent segment reveals several topics that are broadly utilized from 2008 to 2011. The topics which have arose during this period are an evolution of the previously utilized subjects and have an association with their content, for example, the theme 'efficiency' arose as a form of revolution from the 'performance' this shows that research using the theme efficiency is an extension of the research theme 'performance' in previous studies. Along with performance, leadership, human practices, public, health also the research theme of that period. The third section shows the themes used in the period from 2012 to 2015. There are nine themes recorded, all of which revolutionary from the themes that arose in the previous period. In this third section, outcomes, innovation, framework, life are the main themes that used. Fourth segment shows the most as of late utilized topic in the period from 2016 to 2018. There are 9 themes recorded, which are all developmental from the topics that arose in the past period. In this period, international, organizational efficiency, factors are the main themes. The last section fifth shows the recently used themes in the period of 2019-2022. This section shows 8 themes of research in context of OE namely approach, public, approach, study etc.



3.4 Co-citation analysis

Co-citation happens when two writers or two sources are referred in a third article (Aria and Cuccurullo 2017; Kumar et al. 2020). Two articles that most of time utilized together are probably going to be from the similar subject areas (Hjørland 2013). Consequently, co-references examination is a tool to quaintly the contextual similarities like a similar topic, theory, methodology, or empirical discipline of multiple publications (Small and Greenlee 1980). Our seventh RQ7 (To analyze the intellectual structure of research in this field.) centers around understanding the intellectual structure of exploration on OE using co-citation and citation clusters. On analyzing co-citation using VOSviewer, we found that with the minimum 20 citation, 214 authors of the 24369 authors are co-cited by other. Fig. 6 is show the co-citation analysis network of author.

In the following stage, the co-citations examination is executed based on sources with minimum number of citation 20 of a source, which was met by 299 out of 13,289 sources, and is presented in Fig. 7 below, in the light of source. This sources map featured the main sources, such as Journal of Applied Psychology (citation 1920), Academic Management Journal (citation 1713), Journal of Management (citation 859) and Journal of Organization Behavior (citation 565).

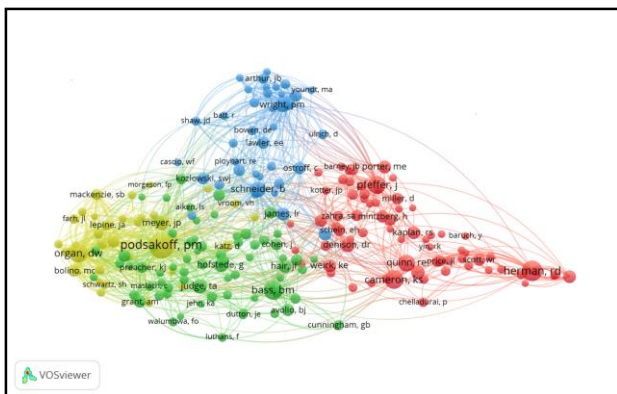


Fig. 6 Co-citation network of authors

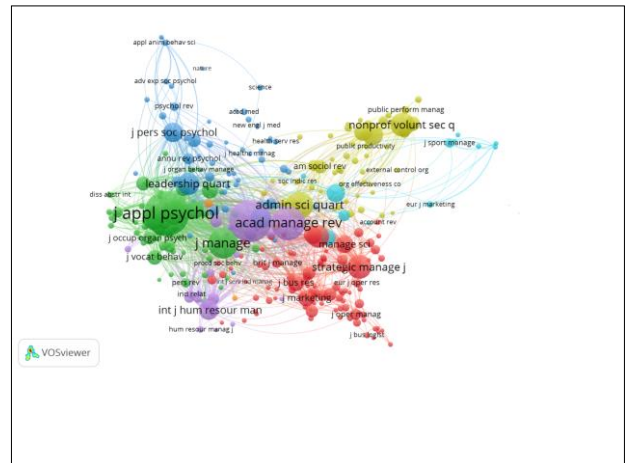


Fig. 7 Co-citation network of sources

3.5 Cluster analysis

Cluster analysis is a measurable procedure adopted to make a class system (cluster) that suitable set of examining. The gathering (cluster) established ought to have a significant level of relationship between individuals from a similar gathering, and a low level of relationship between individuals from the various batch (Everitt 1998). The established gathering (clusters) are not known before handling, however are controlled by the items allocated to them. Since, preceding preparing, there is no requirement for the groups (clusters) to be recognized, cluster analysis is valuable to give a system in large multivariate data sets (Everitt 1998). According to Kowalski and Maybury (2000, p. 140) the process of cluster generation has defined in four steps as follow;

1. Draw the space for the clustering, i.e. distinguishing proof of articles to be utilized in grouping the clustering cycle diminishes the potential for wrong information.
2. Establish the properties of the articles are grouped, e.g. articles' references and citations might be utilized to decide theme association.
3. Establish the power of the connections between the qualities whose co-event in report recommends those documents ought to be in a similar group.
4. Exercising a clustering calculation to be deciding the cluster(s) to which each record will be allocated.

In the present study, we present our results, by most important sources with the reference co-citation analysis (i.e. minimum number of citation of a cited reference 20). Further, the



explanation of four clusters has been done which arose in the analysis. Fig. 8 depicts three clusters.

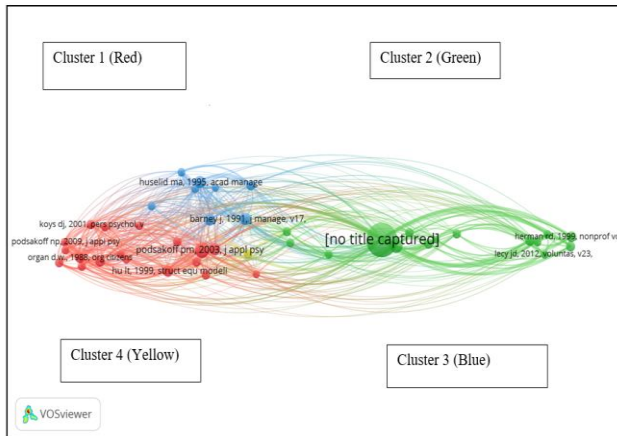


Fig. 8 The co-citation network of 42 most important references and four clusters (based on co-citation analysis)

3.5.1 Source co-citation cluster

In general, the reference co-citation investigation uncovered four clusters or information zone. A references in cluster 1 (red; 18) incorporate the most elevated by and large number of references, trailed by cluster 2 (green; 15), cluster 3 (blue; 8) and afterward cluster 4 (Yellow; 1). Further, the explanation of the four clusters should have done

3.5.2 Co-citation cluster 1 (Red): Foundation of psychological variables

Articles in the cluster one deal with the measurement, scale development, foundation about the psychological variables. Studies explore the antecedents and consequences of different psychological variables like organizational effectiveness, organizational commitment, organization citizen behavior etc. by exploring such different variables, their measurement, scale development, antecedents and consequences, this cluster (Red Colour) form the foundation of psychological variables. Nunnally (1978) discussed controversial issues that are of immediate importance to the professional clinician or research in the behavioral science. Smith et. al. (1983) made elaboration on the nature and predictor of citizenship behavior. Result suggests that citizen behavior include at least two separate

dimensions; Altruism or helping specific person and Generalized compliance, a more impersonal form of conscientious citizenship. The predictive power of other variables (e.g. leader supportiveness as assessed independently by co-workers, personality measures) varied across two dimensions of citizen behavior. Podsakoff and Organ (1986) figured out several problems associated with self-report in organizational research. Organ (1988) explore that satisfaction generally correlates with organization pro-social or organization citizenship type behavior. Allen and Mayer (1990) argued that three major conceptualization of the organizational commitment found in literature and present a somewhat distinct link between employees and an organization that develop as the result of different experience. Allen and Mayer (1991) presented three component model of organizational commitment which has greater relevance for conduct commitment research. Williams et.al. (1991) highlighted job satisfaction and organizational commitment as predictor of organization citizen. Podsakoff et. al. (2000) critically examined the literature review on organizational citizen behavior and other related construct. Koyas (2001) supported that HR outcomes (employee satisfaction, organization citizen behavior and turnover) influence the organizational effectiveness. Organ (2009) redefines the organization citizen behavior with its constructs.

3.5.3 Co-citation cluster 2 (Green): Organizational effectiveness theories and approaches

Studies in this second cluster (Green color) explain the concept of organizational effectiveness and also investigate the theories, approaches and constituencies on organizational effectiveness. Cameron (1986) summarize what areas as becoming consensual on effectiveness and also pin out continuing areas of disagreement and conflicts. Katz and Kahn (1978) explore that justice in organization and procedural fair conditions in particular drive innovations. Denison and Mishra (1995) uses case studies and survey data to explore the relationship between organizational culture and effectiveness. The study provides existences of four cultural traits -involvement, consistency, adaptability and mission and each trait showed positive association with organizational



effectiveness. DiMaggio and Powell (1983) describe three isomorphic processes – coercive, mimetic and normative and hypotheses about the impact of resource centralization and dependency, good ambiguity and technical uncertainty, and professionalization and structuration on isomorphic change. Forbes (1998) reviews the empirical studies of nonprofit effectiveness from 1977 to 1997 and reveals that researches have conceptualized effectiveness in variety of ways and much recent research has employed on emergent or social constructionist approach to effectiveness. Herman and Renz (2008) generalized literature review on non-profit organizational effectiveness and explore that non-profit organizational effectiveness is always comparative, multidimensional, its related to broad effectiveness and to the use of correct management practices, and social construction. Furthermore, it is unlikely that there are any universally applicable practice that can be prescribed for all non-profit organizations board and management, organization responsiveness is a useful measure of organizational effectiveness, distinguishing among types of non-profit organizations is important and useful and level of analysis makes a difference in researching and understanding effectiveness. Herman and Renz (1997) explore that practitioner-experts define objective effectiveness as employing correct procedures and stakeholder judgments of effectiveness are also related to correct procedures. Lecy et. al. (2011) argues that Non-Government and Not for profit organizational effectiveness requires enhance efforts at cross disciplinary divides, adding empirical analysis, and increasing attention to develop shared categories and methodologies. March(1991) explores new possibilities and exploitation of old certainties in organizational learning. Salanak and Pfeffer (1978) argues that in comparison with need-satisfaction and expectancy models of job attitudes and motivation, the social information processing perspective emphasizes the context and the consequences of past choice rather than individual predispositions and rational decision-making processes. Quinn and Rohrbaugh (1983) present a spatial model of effectiveness criteria and argues that it organizes the organizational effectiveness literature reviews, indicates which

concepts are most central to the construct of organizational effectiveness, make clear values in which the concepts are embedded. Sowa et. al. (2004) introduces a multidimensional and integrated model of non-profit organizational effectiveness which capture two prominent dimensions of organizational effectiveness namely management effectiveness and program effectiveness. Yuchtman and Seashore (1967) propose a framework of recourse approach to organizational effectiveness derived from the system model of organization and this framework emphasize both the distinctiveness of the organization as an identifiable social structure and the interdependence of the organization with its environment.

3.5.4 Co-citation cluster 3 (Blue): Human Resource Management (HRM) practices and organization performance

Studies in this cluster (Blue Color) investigate the impact of Human Resource Management (HRM) practices on the performance of organization; HR system effects on manufacturing performance and turnover of employees. On the other hand, firm resources and sustained competitive advantage has become important part for organization. The majority of articles in third cluster examines the impact of HRM practices, HR system on the employee turnover, productivity, corporate financial performance and overall performance of organization.

Arthur (1994) explore that the mills with commitment system had higher productivity, lower scrap rates, and lower employees turnover than those with control system. Nahapiet and Ghoshal (1998) present a model that incorporate relationships between different dimensions of social capital, main mechanism, and processes necessary for the creation of intellectual capital. Baron et. al. (1986) elaborates the moderate and mediator conceptually and strategically. Bowen and Ostroff (2004) introduce the construct “strength of HRM system” and describe its metafeatures that results in a strong organization climate and a strong situation in which individual share a common interpretation of what behavior are expected and rewarded. Human Resource Management (HRM) practices, such as training, staffing selectivity and perceptual firm performance measures have positive association



(Delaney and Huselid 1996). Furthermore, three individual HR practices namely profit sharing, result-oriented appraisals and employment security has relatively strong universalistic relationships with the important accounting measures of performance. The HR practices like participation, result oriented appraisal and integral career opportunities has significant contingency relationship with financial performance. The market type employment system also positively related to firm performance (Delery and Doty 1996). Barney (1991) examines the link between firm resources and sustained competitive advantage. Huselid (1995) argues that HRM practices have an economically and statistically significant impact on both intermediate employee outcome (turnover and productivity) and short and long term measures of corporate financial performance.

3.5.5 Co-citation cluster 4 (Yellow): Leadership and performance

This fourth clusters (yellow Color) consist only one study. Bass (1985) explain the movement in the social science approach to leadership. The drift of this movement seems to be that something special happens in excellent organizations. Charisma, Inspirational leadership, Individualize consideration, and Intellectual stimulation are major factors comprising transformational leadership.

3.6 Analysis of key words

The high-level summarization and accuracy of the article can be possible through keywords (Xie et al. 2020). Strozzini et al. (2017), reaffirmed that director of paper content or the connection of the articles with their research questions highlights through author keywords. So, research question *RQ8* (To recognize the normal topic of exploration streaming among researcher) is answered by the analysis of keywords. The co-occurrence of keywords reveals the usual research theme of papers (Ding and Cronin 2011). Therefore we have used keywords analysis to check the common theme and research trends in the field of OE.

The analysis of high-frequency keywords of the research papers, most frequent key words used by authors and keywords used in titles are carried out by the software package Biblioshiny. Fig. 9 shows the words cloud of most frequently

used key words. It shows that words model, work, impact, management, job satisfaction and firm performance are most used in the field of OE. Other words like perceptions, strategy, antecedents also have significant used in this area of research. In other words, these were the themes which emerged in the area of OE.



Fig. 9 Key words cloud

Table 6 Author key words

Terms	Frequency
Organizational Effectiveness	169
Leadership	32
Organizational Culture	25
Effectiveness	24
Job Satisfaction	22
Performance	21
Knowledge Management	18
Management	15
Organizational Commitment	15
Innovation	13



Fig. 10 Title key words



Further, Table 6 has the list of author key words frequency. It revealed that most frequency appeared keywords used by author in the field of OE are organizational effectiveness, leadership, organizational culture and effectiveness, accounting for 45%, 11%, 7% and 6.7% respectively. Next, fig. 10 shows the mostly keyword used in the titles of research. As shown in figure 10, most commonly effectiveness, management, performance, and leadership keywords are used in the title of research in this area. It shows that the field of OE has been extensively studied in effectiveness, management, performance and leadership. OE has a significantly studied in the terms like human, behavior, social, citizen, effects etc.

4 Discussions

In current segment, we have carried out this investigation and introduced the discoveries of the eight research inquiries decided in the introduction segment. The expressive analysis shows the publication drift in this examination territory. In the descriptive analysis we identified the year's wise publication, top contributing country, most influential author, journal and institution through the analyze WoS database. Citation analysis provide us the citation trends like top global and local cited articles and the most influential work in the present research area. Thematic evolution, key words analysis shows the evolution, changes, tends and themes in the research area of OE. Co-citation network analysis and co-citation cluster provide intellectual structure of the research filed. Source co-citation cluster shows the main emphasize of sources in different cluster. Cluster 1 talk about the new management and organizational theory. But cluster 2 emphasize on the psychology aspects like applied psychology, organizational and occupational psychology, personal psychology etc. The next 3rd cluster mainly focuses on the management of human beings means the management of employees. The accompanying discoveries opposite the eights research inquiries can be extract from this investigation.

1. It can be concluded that exploration of organizational effectiveness has developed continuously at a consistent pace. 2011 and 2021 contributed the significant in this field. Affiliation examination exhibited

influential work has been contributed by showed USA, trailed by England and People R China. Among the institutions and journals, University System of Georgia and Non-profit and Voluntary Sector Quarterly get the main position in the index.

2. An author-wise investigation reveals that George E Mitchell and George B Cunningham are the most influential creators in the field of OE, with the greatest number of papers contributed. The research areas of George E Mitchell are effectiveness of NGO and non-profit organizations, and leadership value for organizational effectiveness. And other influential other George B Cunningham works on diversity and inclusion for effective organizations, bias, and organizational commitment.
3. Orlitzky et al. (2003) arose as the most internationally referred article among the 763 articles. This is a meta-analysis of 52 studies that theorize the relationship between Corporate social/environment performance (CSP) and Corporate financial performance (CFP). The meta-analytic findings suggest that corporate virtue in the form of social responsibility and, to a lesser extent, environmental responsibility is rewarding in more ways than one. Corporate social/environment performance (CSP) is positively correlated with corporate financial performance (CFP). The correlation of both CSP and CFP is require for the effective performance of an organization.
4. Thematic evolution shows the thematic changes in the research area of OE. It shows the several sub-themes in five sections that widely used. Job, Management, Analysis, Strategies, Leadership, Innovation, Outcomes, Human Practice, International, Organizational Efficiency, Banks, Health, Job, Practice, Framework, Public, Approach are the research themes used throughout the different periods.
5. In the co-citation, Huselid (1995), and Herman (1999), Podsakoff P.M. (1986) and Organ, D.W (1988) are co-cited together most, framing the solid co-reference. Huselid (1995) explored the impact of human resource on firm performance and found that the impact of HR system on firm performance is both economically and



statistically positive and significant. Herman (1999) specialized literature on non-profit organizations effectiveness and concludes by considering three possible futures for NPO effectiveness research. Padsakoff (1986) suggest that managers and practitioners interested in decreasing alienation among professionals and non-professionals alike may judiciously consider the use of additional rules and procedure. It appeared obvious that formalization tends to reduce alienation through its ability to decrease role ambiguity and organizational commitment. Organ (1988) concluded that organization citizen behavior contributes appreciably to organizational effectiveness. Further, described how to promote OCB and how to encourage employees to become or remain good soldier.

6. Source co-citation cluster examination assisted with understanding that exploration on OE can be set apart into three streams on the basis of sources. Cluster one can be recognized as the base for the research, while Cluster two and three are the sub-interfacing fields in this research territory.
7. Most of the research on the OE is based upon effectiveness, management, model, work, performance and leadership. Job satisfaction, leadership, organizational culture and impact are also likewise broadly concentrated by the analytics in present area. Collaborative, quality people, innovation, diversity of strategies, organizational newness, culture, compensation are the themes which directed for the future research

4.1 Limitations in current research and avenues for future research

Fellnhofner (2018), mentioned that bibliometric study is the first one that applies both quantitative and qualitative analyses using cluster mapping. Still, it cannot guarantee full comprehensiveness despite careful and well-thought-out research designs. In the present study, using the bibliometric analysis in the area of OE we have found that though there has been continuous progress in this research area, still there are a few factors that obstruct development in this field regardless of proceeding with progress.

1. Lack of methodical hypothesis advancement. Albeit exact examination proliferates on OE, a need exists for more reasonable articles giving a hypothetical structure to guide future research.
2. Used only WoS data base. In the present bibliometric analysis, the data used drawn from the WoS database. The data from different database like Scopus, Publish or Perish, Pub Med and Google scholar can be used in future research.
3. Lack of data. Data exclusion is required in data for bibliometric because through exclusion, the relevant data can obtain for this analysis. In the present study, the data of 763 articles was used after using exclusion. Less number of exclusion can increase the number of articles for analysis.
4. Lack focus on content analysis. In the present study, there is lack of focus on content analysis. In most of the bibliometric analysis study comprehensives content analysis was used after the cluster analysis but in the present study sources co-citation was used for cluster analysis but lack of content analysis. A need exists for more comprehensives content analysis of cluster in future research.
5. Lack of comparison. Some researchers prefers using different database to make a comparison (Kent Baker et al. 2020). But in this study we used only one database WoS so making comparison of OE publication trend can't possible. Thus, a need exists for comparison based on different database.
6. Lack of systematic literature review (SLR). Most of the bibliometric studies based on the comprehensive literature review. The lack of SLR hampers research, especially in developing different theories and conceptual framework.
7. Search string. The bibliometric analysis of OE is based merely on SSCI data base of WoS. In addition, only one term "organizational effectiveness" was used as search term to generate sample articles for bibliometric analysis (Zhang et al. 2019).

5 Conclusions

Research on OE has acquired the attention of scholars over the time. In this investigation we embraced bibliometric investigation, NA, CA as well as keyword analysis to lead a thorough



bibliometric investigation. Descriptive analysis provided the current publication trends in the field of organizational effectiveness. Reference and co-reference examination give the top referred papers and references trends. Our investigation makes a significant contribution to the exploration on OE because it is a combination of bibliometric analysis, network and content analysis. Alongside the top supporters of the field, we decided the progression of information and exploration topics of OE by thematic evolution and cluster analysis obtain from source co-citation network analysis.

From the application perspective, this investigation will fill in as a fundamental foundation for understanding research into OE as well provide direction for future research to fill the gap. It provides the picture of current stage and flow in which exploration is developing. Although the study contains data of 763 articles extracted from WoS database, it has several short comes, too. In the future, a broad investigation can be directed, comprising systematic literature review of articles drawn from different dataset along with WoS.

Regardless of the limits referenced over, this paper is first endeavor to give bibliometric, NA and CA of OE. It presents the total topical progression of information and recognizes direction for further studies with new topics. This would motivate for an improved and detailed research in this area of OE.

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