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A BIBLIOMETRIC ANALYSIS OF TRANSACTIONAL LEADERSHIP BASED ON THE WEB OF SCIENCE (WOS) PLATFORM

Abstract

In this study, scientific publications produced in the field of "Transactional Leadership" between 2000-2021 were examined using bibliometric analysis method, and the data obtained were illustrated with visual mapping technique. Bibliometry is an analysis technique used for quantitative analysis of bibliographic data obtained from scientific research. In this analysis, the Web of Science database was used to obtain the data. Using general citation criteria to evaluate the scientific contribution of studies on transactional leadership; citation, co-citation and co-formation analysis were made. In this context, different variables such as keywords, authors, journals, institutions and countries were analyzed. VOSviewer program was used to analyze the data.

Keywords: Transactional Leadership, Bibliometric Analysis, Web of Science (WOS), VOSviewer

INTRODUCTION

Bibliometric analysis is a method that aims to obtain results by focusing on published books, documents and journals in order to measure data on a certain subject and to ensure that the publications are understood. Bibliometric researches do not allow researchers' prejudices, as they are quantitative studies that allow a more systematic analysis of the relevant literature (Teixeira et al., 2013). The person who influences the people in a certain group, can gather them around certain goals and mobilize them to achieve the determined goals is the leader, and the behavioral process in question is the leadership. When examined in the literature, approaches to leadership are discussed in the form of various researches as behavioral approaches, traits approach, situational approaches and modern approaches. The main purpose of leadership research is to try to reveal effective leader characteristics. The basic types of leadership addressed in modern leadership are transformational and transactional leadership. According to Burns (1978), leadership consists of two types of leadership: transactional and transformative. The difference between transformational and transactional leadership is what leaders and followers present to each other. Transformational leadership is seen as a proactive, innovative and long-term theory of leadership, while transactional leadership is seen as an operant leadership theory that responds to traditional and the needs of the moment (Nemanich & Keller, 2007). According to Burns (1978), while transactional leadership is an economic or political exchange between leaders and followers, transformational leadership is about a leader's followers changing their needs, thoughts, beliefs and values and acting together to achieve a certain goal. In Burns (1978)'s study on leadership, the first form of interaction between leaders and followers is transactional leadership, and transactional leadership is more common than transformative leadership (Liu et al, 2011). The role of transactional leadership is largely ignored in recent studies. Transformational leadership is seen as more popular than transactional leadership, but meta-analysis studies (Lowe et al., 1996; Judge & Piccolo, 2004) show that the transactional leader is an effective model in ensuring employee satisfaction and job motivation. In transactional leadership, the leader uses his / her powers to reward subordinates, provide money and status for their efforts, while transformational leadership is about inspiring subordinates in their duties and directing and directing their business thoughts to the vision.

The transactional leader is concerned with motivating her followers by addressing their personal interests (Liu et al., 2011; Heuvel, 2010). According to Bas et al. (1998), transactional leaders recruit subordinates who are suitable for their job expectations. In transactional leadership, it is important to inform subordinates about both rewards and business process. There is a conditional reward-punishment system in the transactional leadership process. Subordinates have to put effort into the task they have to do if they want to get certain rewards. While transactional leaders maintain their success and work, if there is a mistake in the process, they have to take action in terms of subordinates' development (Purwanto et al., 2020). A leader is an exceptional form of management that will use corrective measures if the necessary standards for expectations are not met by observing the performance of her followers (Antonakis et al., 2003). In transactional leadership, the relationship between the leader and his subordinates is based on influencing each other. Leaders use the reward system to achieve organizational goals, while followers want to impress the leader with their performance. The aim of both sides is to achieve the highest performance. It can be said that there is an exchange relationship between the leader and the subordinates (McCleskey, 2014). When employees act in accordance with the demands and expectations of leaders, they expect to receive value in

return. Transactional leadership relies on traditional exchange relationships or processes. Employee obedience (loyalty, productivity, and effort) is replaced by adequate reward, a transactional leadership style, which is a leadership style that emphasizes the interactions between leaders and subordinates, transactional leaders use various methods to motivate employees (Avolio & Bass, 2013). One of the most common methods is to reward employees who perform their duties well. It aims to achieve optimum performance by providing rewards, appreciation or praise to the employee. On the contrary, the transactional leader will not hesitate to punish the employee who performs poorly or falls short of the target. This leadership style enables to achieve organizational goals by regulating subordinates' behaviors as desired or by preventing undesirable behaviors (Adriansyah, 2020). Transactional leadership consists of elements such as rules, directives, vertical communication, concrete goals, position-based power. Transactional leaders use a strict reward and punishment system to complete the tasks on time, to ensure the obedience of the employees and to fulfill their duties (Karabay & Erbay, 2021).

According to Bass (1985), transactional leadership behaviors occur in three dimensions in the organization. These dimensions are; It consists of “conditional rewarding”, “active management with exceptions”, and “passive management with exceptions”. In conditional rewarding, a relationship of purpose and reward has been established between the leader and his followers. The leader interacts with his followers about the goal he wants to achieve, the path he will follow, the expectations he wants to achieve, and the performance levels he wants to achieve. The leader promises material and moral rewards to motivate followers to achieve these goals and motivate them to make efforts, and otherwise mentions punishment. Actively, with exceptions, the leader in the management takes action at the first stage when the deviation or deterioration starts to appear, while the leader of the management with exceptions takes action after the deviation or deterioration is seen. In short, while the active leader seeks deviation and intervenes before the problem occurs, the passive leader expects problems to arise (Bass, 1985; Bass, 1999).

METHODOLOGY

Bibliometry is used to classify documents by quantitatively analyzing bibliographic data obtained from scientific publications (Mao et al, 2015). As a result of this classification, it provides an overview of the nature and development of the research field (Pritchard, 1969). Bibliographic analysis helps researchers explore the spread and impact of studies in a particular field. At the same time basically; offers a perspective in measuring the effects on the formation of a person, publication or journal-based scientific field (Kraus et al., 2012). Profiling publications, clustering and visualizing studies (De Bakker et al., 2005); It provides information about mutual relations, the influence capacities of the subjects, journals, authors, countries and institutions (Krauskopf, 2018). In this study, citation criteria were used to evaluate the literature contribution of the studies on transactional leadership. In this analysis; citation, co-citation and co-formation analysis were made (Aparicio et al, 2019). In addition, by examining the keywords in the related topic, it was aimed to create a perspective on the relation of transactional leadership with other fields and variables.

In this analysis, the Web of Science Core Collection database was used to obtain data. Web of Science is considered to be the most comprehensive citation program for intensive data research studies (Li et al, 2017). In the study, VOSviewer analysis tool was used to visualize the

data by mapping. It visually represents citation networks, common citations, co-authors, and the emergence of keywords together (Van & Waltman, 2014). VOSviewer software is an analysis program used to visualize and analyze a bibliometric network developed by Van and Waltman (2010). In this study, using the VOSviewer program; Keyword co occurrence based on bibliographic data, co citation-authorship, co authorship-institution-country-authorship, citation-author maps are used for visualization. Each circle represents a term. The large circle and text indicate preferred terms in a field. The distance between the two circles shows the level of relationship between them. If the distance is small, the relationship between them is higher (Hamidah et al., 2021).

Citation analysis is based on the basis that more cited articles are more effective on the relevant subject while citing articles that are thought to be important for the development of the authors' research (Chai & Xiao, 2012: 25). In this study, a fractional calculation method is used based on the number of documents written by the authors and the total number of authors for each document co-authored while determining the co-authorship connection between two authors in the citation, bibliographic matching and citation analysis (Van & Waltman, 2010). Co-authorship; It represents the number of articles co-authored by more than one author, institution or country. VOSviewer shows how this is linked (Merigo et al., 2018).

METHOD

In this study, transactional studies conducted in the field of " Transactional Leadership" between 2000-2021 were collected by scanning in Web of Science and visualized in VOSviewer analysis program. In the Web of Science Core Collection database, the topic of "transactional leadership" was searched between 2000 and 2021 and 2.157 results were obtained. The results were combined and analyzed in a format that can be transferred to the VOSviewer program. Distribution by years in the study, co-authorship-authors, co-authorship-organizations, co-authorship-countries, citation-authors, bibliographic coupling-authors, co-citation-authorship, co-citation-sources, co-occurrence-keywords relationships It has been examined.

FINDINGS AND RESULTS

As a result of the analysis, 2,157 publications made between 2000 and 2021 were found. The distribution of the work done by years is shown in Table 1.

TABLE 1. Distribution by years

Year of Publication	Number of Publication
2021	18
2020	237
2019	212
2018	204
2017	178
2016	188
2015	148
2014	132
2013	130

2012	134
2011	121
2010	81
2009	85
2008	61
2007	50
2006	42
2005	36
2004	22
2003	21
2002	21
2001	21
2000	15

When looking at the distribution of these publications by years; It was observed that the issue of transactional leadership started to attract attention between 2007-2010. After 2010, it has been observed that the work done has increased gradually. 237 studies were conducted in 2020. The highest yield of the last 21 years has been achieved. In addition, it was observed that 18 studies were carried out in the first 3 months of 2021. This number is expected to increase. In addition, it has been observed that the studies conducted in the last 5 years constitute 48% of all studies.

Figure 1. Co-authorship of authors on transactional leadership

2.157 publications have been published on transactional leadership and 4747 authors have been found. 263 of these authors have published at least 3 publications on "Transactional Leadership". The strength of the authors' joint connections with other authors was calculated. 66 of 263 authors were found to be linked to each other. Jens Rowold received 31 publications, 30 link strengths, and 789 citations. Latte B. Anderson received 9 publications, 21 connectivity strengths, and 149 citations. Gregory A. Aarons received 12 publications, 18 link strengths, and 985 citations. Fred O. Walumbwa received 14 publications, 18 link strengths, and 2708 citations. Bruce J. Avolio received 11 publications, 15 link strengths, and 2071 citations. Henna Hasson received 5 Publications, 15 link strengths and 73 citations.

Figure 2. Co-authorship of organizations on transactional leadership

A total of 1893 organizations were found on the subject of research. 384 of these organizations have published at least 3 publications. A co-authorship link with other organizations has been identified for each of the organizations. 331 out of 189 organizations are linked to each other. University of Nebraska 21 publications and 5997 citations, University of Florida 16 publications and 5656 citations, Arizona State University 40 publications and 5321 citations, Penn State University 28 publications and 5085 citations, Erasmus University 38 publications and 3590 citations, San Diego State University 17 publications and It received 3388 citations, 15 publications from the University of North Carolina, and 2731 citations.

Figure 3. Co-authorship of countries on transactional leadership

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Figure 4. Citation of authors on transactional leadership

The number of authors of at least 3 publications out of 4747 authors on the subject of research is 263. For each of these authors, the total strength of citation link with other authors was calculated. B.J. Avolio 11 publications and 4551 citations, T.A. Judge 4 publications and

3315 citations, D.I. Jung 9 publications and 2716 citations, Fred O. Walumbwa 14 publications and 2708 citations, Bruce J. Avolio 11 publications and 2071 citations, J.E. Bills received 6 publications and 2037 citations.

Figure 5. Bibliographic coupling of documents on transactional leadership

2158 studies were found on the subject of research. Brown M.E; Trevino I.K; Harrison D.A. They are ranked first in the Organizational Behavior and Human Decisions Processes Magazine with 1607 citations to their work in 2005. Judge T.A. and Piccolo R.F. They take the second place in the Journal of Applied Psychology with 1570 citations to their study in 2004.

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Figure 6. Co-citation of authorship on transactional leadership

Judge T.A. and Piccolo R.F. They take the second place in the Journal of Applied Psychology with 1570 citations to their study in 2004. BM Bass 6086 citation, BJ Avolio 2070

of journals that received at least 20 citations from 22425 i

words were found in the research subject 87 keywords that repeated

"organizational culture" and "organizational commitment" 36 times, "trust" 31 times, "emotional intelligence" 30 times, and "motivation" 26 times.

CONCLUSION

The most cited study was determined by looking at the bibliometric link among the studies conducted at transactional level. The aim of this bibliographic analysis is to create a systematic and holistic perspective on the work on transactional leadership. It is possible to explain this for two different sub-purposes. The first is to reveal the quantitative power of the relevant subject and other variables related to this topic, and the researches put forward by the authors who have worked with these variables. Another aim is to reveal the qualitative connections of the relationships between researchers and studies by sharing clear data on research areas. The most common keywords that appeared together were transformational leadership, leadership, transactional leadership, leadership style, job satisfaction, organizational commitment, performance. Based on these results; It has been observed that transactional leadership is a driving force that encourages change and transformation, increases job satisfaction, affects organizational commitment and directs employee performance. Considering the interrelationships of the studies, especially the business functions, the most obvious result of the variables used for the studies is the impressive role of leadership, which is a managerial feature, in terms of human resources management. The second practical conclusion to be drawn from this is the potential for the frequency of variables such as performance and job satisfaction, employee turnover data, which plays a key role in business management, to be seriously affected by leadership practices. In addition, the fact that transactional leadership and transformational leadership are in such frequent relationships in the literature indicate that transaction acts as the foundation of a building in the transformation function. In order to provide an overview of research trends, common citations of the authors have been used to review common research interests. Two trends stand out here, while the first trend points to the link between transactional leadership and transformational leadership, the second trend focuses on the intense relationship between leadership and the variables that are at the focus of human resources management. It shows that the leadership role has a determining role both positively and negatively in terms of human resources, which are valuable, rare and inimitable resource for any business. The obtained bibliographic analysis findings highlight the intense interest in transactional leadership research in recent years and underline the emerging interest.

It has been found that productive and influential academic literature on the determinants of transactional leadership has been produced in various countries, institutions and co-author networks, mostly in the USA, Canada, the Netherlands, Austria, Germany and England. However, as the area of research grows and data on transactional leadership, their role in the functional characteristics of the business will become more evident. The map of the literature in the relevant direction will gain a larger scale of representation. This will present different perspectives in both qualitative and quantitative terms to researchers who will study on the relevant subject.

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