

40 Years of Leader-Member Exchange Research: A Bibliometric Analysis Between 1982 And 2022

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ABSTRACT

This qualitative study analyzes the past 40 years of research on leader-member exchange through conducting bibliometric analysis. Using R and R Studio, articles on leader-member exchange that are published in the Web of Science have been analyzed. The findings of the bibliometric analysis reveal that a total of 4316 articles have been published on leader-member exchange, and the first article on the subject appeared in 1982. Further analysis uncovered that the highest number of articles on leader-member exchange has been published in 2022. Most of the body of literature on leader-member exchange are found in the Journal of Applied Psychology, Frontiers in Psychology, and Journal of Organizational Behavior. Y. Brunetto, R. C. Liden, and Y. Liu are the top three researchers that contributed most to the body of knowledge on leader-member exchange, and the top three affiliations are University of Illinois, Renmin University of China, and Michigan State University. The most productive countries are USA, China, and Australia; and the most frequently used words are “leader-member exchange”, “performance”, and “work”.

Keywords: *Leader-Member Exchange, Bibliometric Analysis, R, Web of Science, Qualitative Study*

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Lider-Üye Etkileşimi Araştırmalarının 40 Yılı: 1982 ile 2022 Yılları Arasında Bibliyometrik Bir Analiz

ÖZ

Bu nitel çalışma, bibliyometrik analiz yoluyla lider-üye etkileşimi üzerine son 40 yılda yapılan araştırmaları analiz etmektedir. R ve R Studio kullanılarak Web of Science'ta yayınlanan lider-üye etkileşimi hakkındaki makaleler analiz edilmiştir. Bibliyometrik analizin bulguları, lider-üye etkileşimi üzerine toplam 4316 makalenin yayınlandığını ve konuyla ilgili ilk makalenin 1982'de yayınlandığını ortaya koymaktadır. Daha ileri analizler, lider-üye etkileşimi üzerine en fazla sayıda makalenin 2022'de yayınlandığını ortaya çıkarmıştır. Lider-üye etkileşimine ilişkin literatürün büyük bir kısmı Journal of Applied Psychology, Frontiers in Psychology ve Journal of Organizational Behavior dergilerinde bulunmaktadır. Y. Brunetto, R. C. Liden ve Y. Liu, lider-üye etkileşimi konusundaki bilgi birikimine en çok katkıda bulunan ilk üç araştırmacıdır ve ilk üç bağlı kuruluş, Illinois Üniversitesi, Çin Renmin Üniversitesi ve Michigan State Üniversitesi'dir. En verimli ülkeler ABD, Çin ve Avustralya'dır; en sık kullanılan kelimeler ise "lider-üye etkileşimi", "performans" ve "iş"tir.

Anahtar Kelimeler: *Lider-Üye Etkileşimi, Bibliyometrik Analiz, R, Web of Science, Nitel Çalışma*

INTRODUCTION

The aim of this study is to analyze the past 40 years of leader-member exchange research, beginning from 1982, when the first article on leader-member exchange by Graen, Novak, and Sommerkamp (1982) appeared in the *Organizational Behavior and Human Performance*, continued as *Organizational Behavior and Human Decision Processes* today, until 2022. The author has aimed at carrying out a bibliometric analysis of the leader-member exchange, especially, since a substantial amount of her previous work is based on this theory (e.g. Baker, 2018; Baker, 2019a, 2019b, 2019c)

The first article on leader-member exchange is written by Graen, Novak, and Sommerkamp in the year of 1982 with the title “The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model”. Beginning with this study, much research has been undertaken to contribute to the leader-member exchange literature. Below, the ten most global cited articles on leader-member exchange are listed and their findings are summarized.

The most global cited article on leader-member exchange by Cropanzano and Mitchell has appeared in the *Journal of Management* in the year 2005. In the study, the authors addressed conceptual difficulties of the social exchange theory and highlighted areas in need of additional research by paying attention to the roots of the conceptual ambiguities, norms and rules of exchange, nature of the resources being exchanged, and social exchange relationships.

The second most global cited article on leader-member exchange in the *Web of Science* is written by Graen and Uhl-Bien (1995) and published in *The Leadership Quarterly*. In the article, the authors used a levels perspective to trace the development of leader-member exchange through four evolutionary stages of theorizing and investigation. They also used a domains perspective to develop a new taxonomy of approaches to leadership, and leader-member exchange is discussed within this taxonomy as a relationship-based approach to leadership.

Study by Rhoades and Eisenberger (2002), published in the *Journal of*

Applied Psychology, is listed as the third most global cited article on leader-member exchange in the Web of Science database. In this study, the authors reviewed more than 70 studies concerning employees' general belief that their work organization values their contribution and cares about their well-being.

Research by Kristof-Brown, Zimmerman, and Johnson (2005) is listed as the fourth most global cited article on leader-member exchange. In the article that was published in the Personnel Psychology, the relationships between person-job, person-organization, person-group, and person-supervisor fit with preentry and postentry criteria individual-level criteria were investigated.

Study by Podsakoff, MacKenzie, Paine, and Bachrach (2000), published in the Journal of Management, ranks as the fifth most global cited article on leader-member exchange. This paper examines the literature on organizational citizenship behavior and other, related constructs such as leader-member exchange.

The sixth most global cited article on leader-member exchange is published by Cohen-Charash and Spector (2001) in the Organizational Behavior and Human Decision Processes. In the article, correlates of distributive, procedural, and interactional justice were examined.

Research by Wayne, Shore, and Liden (1997) is ranked as the seventh most global cited article on leader-member exchange. In the article published in the Academy of Management Journal, the authors tested a model of the antecedents and consequences of perceived organizational support and leader-member exchange, based on social exchange theory. Results indicated that perceived organizational support and leader-member exchange have unique antecedents and are differentially related to outcome variables.

Study by Gerstner and Day (1997), published in the Journal of Applied Psychology and ranked as the eighth most global cited article, asserts that significant relationships exist between leader-member exchange and job performance, satisfaction with supervision, overall satisfaction, commitment, role conflict, role clarity, member competence, and turnover intentions.

The ninth most global cited article on leader-member exchange is published by Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001). In the study published in the *Journal of Applied Psychology*, reciprocation's role in the relationships of perceived organizational support with employees' affective organizational commitment and job performance was investigated.

In the tenth most global cited article on leader-member exchange is published by Christian, Garza, and Slaughter (2011), published in the *Personnel Psychology*, the authors used meta-analytic path modeling to test the role of engagement as a mediator of the relation between distal antecedents and job performance.

METHOD

In order to analyze the past 40 years of leader-member exchange research, a bibliometric analysis has been undertaken using R and R Studio. This bibliometric analysis is limited on the articles published in the Web of Science database. Employing the "leader-member exchange" keyword, the Web of Science database yields 4,316 articles. All articles are provided from a total of 968 sources. The annual growth rate is 15.47%, and the document average age is 7.29. The average number of citations per article is 49.63. A total of 7588 authors have contributed to leader-member exchange research, 460 of whom are single authors. There is an average of 2.94 co-authors per article. The percentage of international co-authorships is 30.26.

Table 1: Main Information

Description	Results
Documents	4316
Sources	968
Annual growth rate %	15.47
Document average age	7.29
Average citations per document	49.63
Authors	7588
Single-authored documents	460
Co-authors per document	2.94
International co-authorships %	30.26

Main information on the bibliometric analysis on leader-member exchange is listed in Table 1 below.

Table 2: Annual Scientific Production

Year	Articles	Year	Articles
1982	1	2003	34
1983	0	2004	32
1984	2	2005	51
1985	1	2006	63
1986	2	2007	69
1987	0	2008	113
1988	1	2009	125
1989	0	2010	130
1990	2	2011	144
1991	7	2012	197
1992	5	2013	155
1993	6	2014	216
1994	6	2015	214
1995	8	2016	260
1996	12	2017	266
1997	18	2018	274
1998	17	2019	284
1999	24	2020	291
2000	24	2021	387
2001	25	2022	455
2002	31		

FINDINGS

The number of articles published on leader-member exchange between the years 1982 and 2022 can be observed in Table 2 below.

As seen in the above table, scientific production on leader-member exchange started in 1982. However, the annual scientific production has remained at a one digit number until 1996 and has only reached three digit numbers in 2008. The highest number of articles on leader-member

Table 3: Average Citations

Year	Average Citations per Article	Average Citations per Year	Citable Years	Year	Average Citations per Article	Average Citations per Year	Citable Years
1982	547	13.02	42	2005	281.57	14.82	19
1984	405	10.12	40	2006	146.32	8.13	18
1985	28	0.72	39	2007	130.71	7.69	17
1986	601	15.82	38	2008	85.68	5.36	16
1988	18	0.50	36	2009	110.1	7.34	15
1990	80	2.35	34	2010	72.68	5.19	14
1991	81.57	2.47	33	2011	76.44	5.88	13
1992	54.2	1.69	32	2012	58.59	4.88	12
1993	194.17	6.26	31	2013	57.5	5.23	11
1994	148.83	4.96	30	2014	38.53	3.85	10
1995	519	17.90	29	2015	32.86	3.65	9
1996	237.67	8.49	28	2016	27.38	3.42	8
1997	302.78	11.21	27	2017	33.8	4.83	7
1998	175	6.73	26	2018	22.37	3.73	6
1999	193.17	7.73	25	2019	18.95	3.79	5
2000	314.42	13.10	24	2020	16.09	4.02	4
2001	322.2	14.01	23	2021	9.41	3.14	3
2002	354.81	16.13	22	2022	3.89	1.95	2
2003	203.41	9.69	21	2023	1.13	1.13	1
2004	142.12	7.11	20				

As observed in the above table, average citations per article and per year have reached their maximum in 1995, with 519 average citations per article and 17.90 average citations per year. The year 2002 follows with 354.81 average citations per article and 16.13 average citations per year.

The 10 journals in which articles on leader-member exchange appear most frequently are listed in Table 4 below.

Table 4: Most Relevant Sources

Sources	Articles
Journal of Applied Psychology	154
Frontiers in Psychology	129
Journal of Organizational Behavior	117
The Leadership Quarterly	113
International Journal of Human Resource Management	105
Journal of Management	85
Leadership & Organization Development Journal	74
Personnel Review	73
Social Behavior and Personality	61
European Journal of Work and Organizational Psychology	58

According to the above table, the highest number of articles on leader-member exchange has been published in the Journal of Applied Psychology with a total of 154 articles. Frontiers in Psychology follows with 129 articles, and Journal of Organizational Behavior comes next with 117 articles.

In Table 5 below, we can see the top 10 most relevant authors who have published articles on leader-member exchange.

Table 5: Most Relevant Authors

Authors	Articles
Brunetto, Y.	40
Liden, R. C.	39
Liu, Y.	35
Vandenberghe, C.	31
Zhang, Y.	29
Wayne, S. J.	27
Scandura, T. A.	24
Farr-Wharton, R.	23
Shacklock, K.	23
Wang, L.	23

According to the above table, Y. Brunetto is the researcher who published the highest number of articles on leader-member exchange, with 40 articles from 1982 until 2022. R. C. Liden follows with 39 articles, and Y. Liu is listed as the third most relevant author with 35 articles.

In Table 6 below, universities that have come up with the highest numbers of articles on leader-member exchange are listed.

Table 6: Most Relevant Affiliations

Affiliation	Articles
University of Illinois	153
Renmin University of China	136
Michigan State University	106
Griffith University	87
Penn State University	82
Peking University	81
Arizona State University	75
Hong Kong Polytechnic University	74
University of Houston	72
Florida State University	69

According to the above table, University of Illinois is the affiliation that has produced the highest number of articles on leader-member exchange, with 153 articles between the years 1982 and 2022. Renmin University of China follows with 136 articles, and Michigan State University is listed as third with a total of 106 articles.

In Table 7 below, countries that have produced the highest numbers of articles on leader-member exchange are observed.

Table 7: Countries' Scientific Production

Country	Articles
USA	4680
China	3311
Australia	711
UK	589
Canada	460
Netherlands	408
South Korea	408
Germany	395
Pakistan	355
India	327

According to the above table, most articles on leader-member exchange are produced in the US with a total of 4680 articles. China comes next with 3311 articles, and Australia follows with 711 articles on leader-member exchange.

In Table 8 below, words that appear most frequently in articles on leader-member exchange are listed, and the WordCloud that demonstrates the most frequently used words with according fonts can be seen in Figure 1.

Table 8: Most Frequent Words

Words	Occurrences
Leader-member exchange	2530
Performance	1386
Work	853
Model	764
Social exchange	710
Antecedents	620
Job satisfaction	588
Behavior	584
Mediating role	578
Commitment	553

According to the above table, “Leader-member exchange” is the most frequently used word in articles on leader-member exchange with 2530 occurrences. “Performance” is the second most frequently used word with 1386 occurrences, and the word “Work” is listed as third with 853 occurrences.

Figure 1: WordCloud



In the above figure, we can see that “leader-member exchange” is the most frequently used word with the biggest font. The words “performance”, “work”, and “model” follow with remarkable font sizes.

DISCUSSION

A total of 4,316 articles on leader-member exchange have been published on the Web of Science from the 1982, when the first article on leader-member exchange had been published, until today. This means that leader-member exchange is a relatively new leadership theory, however the number of articles that have been published on it is not neglectable. Earlier leadership theories are trait theory of leadership, behavioral theories of leadership that encompass directive, supportive, participative, and achievement-oriented leadership, and situational leadership theory. Examples to newer leadership theories are autocratic/democratic leadership, transformational/transactional/laissez-faire leadership, servant leadership and charismatic leadership.

According to the findings of this study, the highest numbers of articles on leader-member exchange have been published in 2022, with a total of 455 articles. 1995 is the year when the highest number of average citations per article and per year has been reached, with 519 and 17.90 citations, respectively. Journal of Applied Psychology, Frontiers in Psychology, and Jour-

nal of Organizational Behavior are the top three sources where the highest numbers of articles on leader-member exchange have been published with 154, 129, and 117 articles, respectively. Y. Brunetto, R. C. Liden, and Y. Liu are the authors that have published the highest numbers of articles on leader-member exchange, with 40, 39, and 35 articles, respectively. The top three affiliations that have produced the highest number of articles on leader-member exchange are University of Illinois, Renmin University of China, and Michigan State University. USA, China, and Australia are the top three countries that account for the highest scientific production on leader-member exchange, followed by the UK, Canada, and Netherlands. The words that appear most frequently in the leader-member exchange literature are “leader-member exchange”, with 2530 occurrences, “performance” with 1386 occurrences, and “work” with 853 occurrences.

CONCLUSION

This study contributes to the literature by summarizing the past 40 years of the leader-member exchange theory by focusing on annual scientific production; average citations; most relevant sources, authors, and affiliations; countries’ scientific production; and most frequent words. The limitation of this research is that it only focuses on the studies on leader-member exchange that are listed in the Web of Science. Further studies that encompass other scientific databases are suggested to be carried out.

REFERENCES

- [1] Baker, N. (2018). Leader-member exchange and follower trust in leader: The moderating effect of leader emotional expressivity. *International Journal of Social Sciences and Education Research*, 4(4), 741-749.
- [2] Baker, N. (2019a). The combined effect of leader-member exchange and leader optimism on follower job outcomes. *Business and Management Studies: An International Journal*, 7(5), 2525-2555.
- [3] Baker, N. (2019b). The moderating effect of leader anger on the relationship between leader-member exchange and follower job outcomes. *Business and Management Studies: An International Journal*, 7(2), 781-794.
- [4] Baker, N. (2019c). Lider-üye etkileşimi ve takipçi iş performansı: Lider duygu dışavurumunun modere edici etkisi. In Tuğsal, T. (Ed.), *Liderlik*

ve Kurumsal Yönetim: Teori ve Güncel Araştırmalar (pp. 65-75). Ankara: Gazi Kitabevi.

[5] Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89-136.

[6] Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 86(2), 278-321.

[7] Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.

[8] Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51.

[9] Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827-844.

[10] Graen, G., Novak, M. A., & Sommerkamp, P. (1982). The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model. *Organizational Behavior and Human Performance*, 30(1), 109-131.

[11] Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219-247.

[12] Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58(2), 281-342.

[13] Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513-563.

[14] Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698.

[15] Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82-111.