

Flexible Work Arrangements and Employee Performance: A Comprehensive Bibliometric Study

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Abstract

This study provides a comprehensive analysis of the relationship between flexible work arrangements and employee performance by leveraging bibliometric and content analysis of 106 publications from the Scopus database spanning from 1989 to 2023. The research particularly focuses on the impact of various flexible work arrangements, including telecommuting, flextime, job sharing, and compressed work weeks, with a significant emphasis on telecommuting. This study highlights leading sectors in the topic of study namely IT, healthcare and industrials, as well as key contributors, countries, and authors in the field. The study maps research trends, gaps, and discourse thematic evolution using VOSviewer bibliometric analysis. Using a systematic content analysis, this study examines how flexible work arrangements affect employee performance, considering research methods, area, and sector. Flexible work arrangements and employee performance are shown to be positively correlated, and it highlights the need for diverse methods to study this relationship, especially given the pandemic's impact on work practices.

Keywords: Bibliometric, Content Analysis, Employee Performance, Flexible Work Arrangements

Introduction

Organizational development and productivity are dependent on employee performance. Effective performance management helps companies identify employees' strengths and weaknesses and give them feedback to improve. Employee performance depends on the quantity and quality of their work in accordance with their responsibilities (Mangkunegara & Prabu, 2011). Several factors influence employee performance. Some are situational (external) and out of a worker's control (e.g., resource availability, government interference,

economic conditions), but others are personal in nature, like effort and ability (Chiang & Birtch, 2007).

Different things, according to some cultures, result in excellent performance. Performance theories stress that in Western cultures that value individualism, success is mostly dependent on individual responsibility and intrinsic qualities. Asian collectivist cultures like Chinese and Japanese explain behavior by external and situational factors rather than personal characteristics. This contests the Western perspective that says value is determined by individual accomplishment (Choi et al., 1999; Crittenden, 1996; Markus & Kitayama, 1998; Morris & Peng, 1994; Tsang, 2002).

During COVID-19, external factors affected employee performance. In response to COVID-19, governments and companies worldwide adopted work-from-home policies to prevent disease transmission. Work-from-home (WFH) is an option to prevent COVID-19 infections in public (Saputra et al., 2021). Social distance was required in all daily activities. Indonesia has the densest population in Southeast Asia, with 136 million workers (Central Bureau of Statistics Indonesia, 2019). The government implemented work-from-home policies in affected cities during the COVID-19 pandemic. Many companies now allow remote work, which is regulated by the federal government (Susilo, 2020).

Employee performance discussions have been common before the COVID-19 pandemic and are increasing due to work changes. Due to the COVID-19 pandemic-induced work arrangement changes, employee performance has been a hot topic in recent years. Scopus data shows that employee performance and flexible work arrangement discussions increased sharply from 2020 to 2023. This motivates researchers to study employee performance and flexible work arrangements over time. Due to changes in government legislation promoting efficient employment, research on employee performance and flexible work arrangements have become a great need.

Flexible, non-standard, or alternative work arrangements allow employees to work outside of a traditional organizational structure's quantity, distribution of working hours, and location. Flexibility, or "flex work," is essential in today's workplace, society, and economy. Due to rising female employment, dual-career homes, and work-leisure time expectations, these alternative work schedules are becoming more popular (Baltes et al., 1999). These changes have led employees to expect more flexibility in their work schedules to better manage life outside of work. Thus, scholars are focusing more on flexible work arrangements, which help employees meet their non-work goals while meeting organizational goals (Orishede & Ndudi, 2020).

Literature Review

Employee Performance

Performance is a multidimensional measure of actual workplace behavior, with performance indicators including job quality, job quantity, working time, and cooperation with coworkers. Organizations must consistently and dedicatedly create positive internal environments for all levels of management. Employee performance is the work they do to fulfill their duties based on their skills, experience, honesty, and availability. Motivation, ability, skills, social security, compensation, and success can also affect performance (Sudiardhita et al., 2018).

Performance is an employee's productivity and production due to personal growth. Employee performance affects organizational effectiveness (Hameed & Waheed, 2011). When expanding an organization, employee performance is crucial because how well people perform daily affects the company's success or failure. Improved employee loyalty leads to higher organizational performance and economic growth (Mungania et al., 2016).

In summary, employee performance is how well they perform their duties. How employees behave at work and how well they complete tasks are included. Task-level efficacy, quality, and efficiency are indicators of employee performance (Sudiardhita et al., 2018). In contrast, manufacturing workers can be held to output per hour and product quality standards. Evaluation of work quality and efficiency reduces costly errors and time, resource, and effort waste. Training effectiveness and employee work goals help determine whether employees are best suited to perform their duties and provide assistance when needed (Lowe & Oliver, 1997).

Flexible Work Engagements

Flexible, non-standard, or alternative work arrangements, depending on the situation, allow employees to work outside the conventional boundaries of a standard organization of work in terms of amount, distribution of working hours, and location. Flexibility, or "flex work," is essential in today's workplace, society, and economy. Due to rising female employment, dual-career homes, and work-leisure time expectations, these alternative work schedules are becoming more popular (Baltes et al., 1999). Flexible scheduling includes teleworking, job sharing, phased retirement, contract work, part-time, and term time employment (Omondi & K'Obonyo, 2018). Workplace flexibility comes in many forms. The main types of flexible work arrangements are location (flexplace) and schedule (flextime). Flexible work arrangements include weekend, shift, overtime, yearly hours contracts, part-time, job sharing, flexi-time, temporary/casual, fixed-term, home-based, telework, and compressed work weeks (Thompson et al., 2015).

As defined by Meier (1979), job sharing is an arrangement where two workers split the time, pay, and benefits while sharing a role and taking on part of it either individually or as a team. "Flextime," employees must work a predetermined number of hours each week, but they have more latitude in when they start and end. That could be entirely up to the employees, or it could mean designating a "core" time when all employees have to be present (Allard et al., 2007). Teleworking is working from home or elsewhere. It's a kind of job flexibility where people can work from anywhere using technology like phones and computers, not having to report to a specific place designated by their company (Ye, 2012). Not every employee is cut out to work from home. One should look for a candidate for telecommuting who is professional, dependable, creative, and independent. He or she is cooperative, good communicator, and ought to be somewhat conversant with the technology related to working from home. A compressed work week is any arrangement of the work schedule that reduces the number of days worked in a given cycle while increasing the number of hours worked each day (Grove, 1976).

Methodology

Scopus is the largest database of citations from research literature and trustworthy internet sources, and it is the one used for bibliometric data collecting. It is designed to locate the

information needed by scientists. Since Scopus is so quick, easy, and comprehensive, it provides the best help for the literature research process. With over 16,000 papers from over 4000 publishers, the Scopus database provides a plethora of metrics based on citations. Using the following keywords and criteria, data is collected and filtered from the Scopus database:

TITLE-ABS-KEY (("Flexible Work Arrangement" OR "Flexibility" OR "Telecommuting" OR "Job Sharing" OR "Flextime" OR "Flexplace" OR "Compressed Work Week" OR "Work from Home" OR "Work from Anywhere" OR "Telework" OR "Teleworking" OR "Part-time Work" OR "Remote Work") AND ("Employee Performance" OR "Job Performance"))).

The search resulting in 554 articles. 554 papers came back from the search. We sort documents in the last screening step to guarantee accessibility, selecting only those that could be analyzed and getting 179 open access articles. Of all of these papers, 106 had bearing on the subject. With VOSviewer, which includes scientific performance and science mapping, bibliometric analysis is performed. Finding important features of publications—sources, journals, authors, countries, keywords, and citations—is part of scientific performance. Science mapping is the process of producing a map of scientific publications, which by building on a thorough review of the literature, can improve the calibre of future research (Sony & Naik, 2020).

Results and Discussions

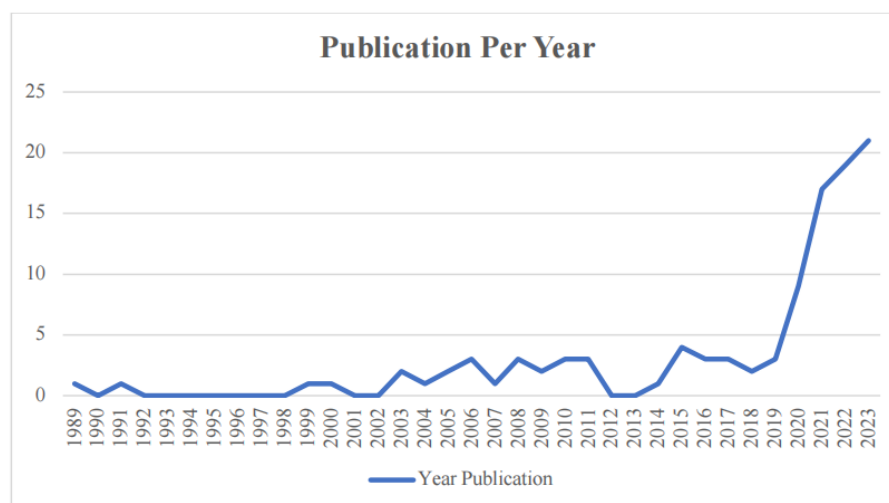


Figure 1. Number of Publications per Year

The historical development of the research is emphasized in Figure 1 above. The number of studies has not increased much since 1989 and tended to remain constant until the late 1990s. Early in the new millennium, employee productivity and flexible work schedules started to rise. Though some years saw some declines. The years 2020–2023 saw a significant rise in each one. The number of annual publications analysis indicates a rising trend in research on flexible work arrangements and employee performance.

Table 1 until 4 below are the results from Bradford's law (Brookes, 1969) that highlights the concentration of most literature in a given area in a small number of sources,

with other sources contributing just one or two pieces each. The core of literature, the nucleus, or zone one of sources is used to find the most productive journals in all fields.

Table 1

Journal Based on Bradford Law

Journals Name	Rank	Freq	Countfreq	Zone
Sustainability (Switzerland)	1	6	6	Zone 1
European Journal of Work and Organizational Psychology	2	5	11	Zone 1
Ergonomics	3	3	14	Zone 1
International Journal of Manpower	4	3	17	Zone 1
Personnel Review	5	3	20	Zone 1
Academic Medicine	6	2	22	Zone 1
American Behavioral Scientist	7	2	24	Zone 1
Applied Psychology	8	2	26	Zone 1
Behavioral Sciences	9	2	28	Zone 1
Evidence-Based HRM	10	2	30	Zone 1
Human Relations	11	2	32	Zone 1
Journal of Business and Psychology	12	2	34	Zone 1
Journal of Vocational Behavior	13	2	36	Zone 1

Table 2

Journal Based on Source of Impact

Source	h_index	g_index	m_index	TC	NP	PY_start
European Journal of Work and Organizational Psychology	4	5	0.364	229	5	2014
Ergonomics	3	3	0,088	389	3	1991
International Journal Manpower	3	3	1	87	3	2022
Personnel Review	3	3	1	21	3	2022
Sustainability (Switzerland)	3	6	0,6	202	6	2020
Academic Medicine	2	2	0,08	77	2	2000
American Behavioral Scientist	2	2	0,105	44	2	2006
Applied Psychology	2	2	0.667	22	2	2022
Human Relations	2	2	0,111	133	2	2007
Journal of Business and Psychology	2	2	0,2	240	2	2015

Note: TC = Total citations, NP = Number of publications, PY_start = year of starting publication

Table 3

Top 10 Country Publication

Country	Total Publication
USA	110
Germany	34
India	17
Romania	17
Canada	13
Indonesia	13
Netherlands	8
UK	8
Italy	6
Norway	6

The main conclusions and implications of our study are summed up here. Top contributor to the most publications is Sustainability (Switzerland), while the European Journal of Work and Organizational Psychology is the source with the highest influence/impact. The USA leads the world with 110 publications overall; Germany and India follow with 34 and 17 publications, respectively. The US is still the most cooperative and linked country, too. Leading contributing writer in the field is Gajendran RS, followed closely by Golden TD.

The research by Gajendran et al. (2015) demonstrates that telecommuting positively impacts both task and contextual performance by enhancing perceived autonomy among employees, which in turn improves job performance. The study also finds that the benefits of telecommuting are moderated by the quality of the supervisor-subordinate relationship (leader-member exchange) and the normativeness of telecommuting within the workgroup. Additionally, Golden and Gajendran (2019) further contribute to this understanding by examining how job characteristics such as complexity, problem-solving, interdependence, and social support influence the effects of telecommuting on job performance.

Table 4

Top 10 Authors

Author	h_index	g_index	m_index	TC	NP	PY_start
Gajendran RS	2	2	0,2	265	2	2015
Golden TD	2	2	0,333	146	2	2019
Hill EJ	2	2	0,091	384	2	2003
Abdel Hadi S	1	1	0,25	61	1	2021
Abdulraheem I	1	1	0,167	48	1	2019
Adisa TA	1	1	0,167	48	1	2019
Aguinis H	1	1	0,25	43	1	2021
Alexander BH	1	1	0,071	41	1	2011
Almusharraf NM	1	1	0,333	3	1	2022
Anakpo G	1	1	0,5	6	1	2023

Science mapping analysis shown in Figure 2 shows that the largest cluster from Dettmers and Biemelt that looks at how flextime lessens the effect of working parents'

morning demands on fatigue and job performance is among the 11 clusters that represent authors' collaboration relationship that are displayed in Figure 2. Further, the keyword citation analysis reveals two clusters: workplace dynamics and employee outcomes, which show their correlation in the common goal of investigating elements that influence employee experiences and behaviours; and practical tools and evidence-based approaches to workplace challenges and valuable insights into employee performance.

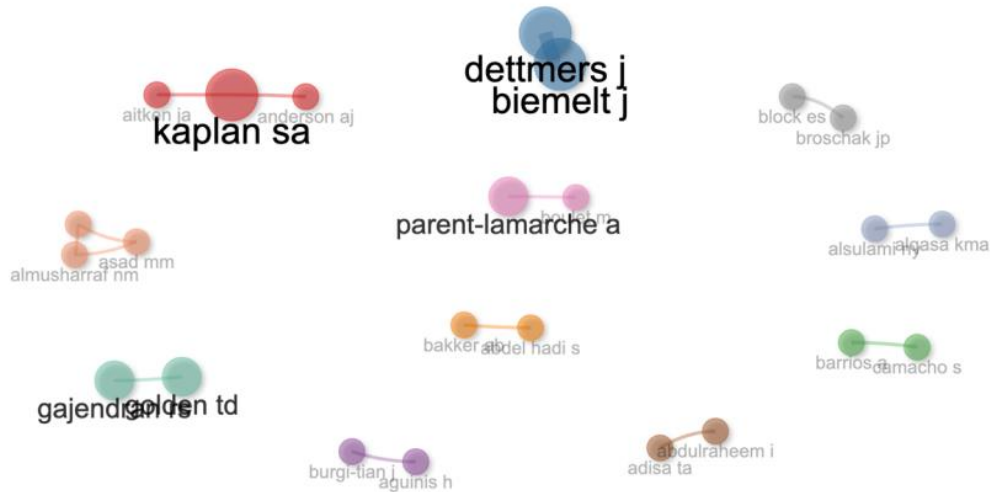


Figure 2. Co-author Network

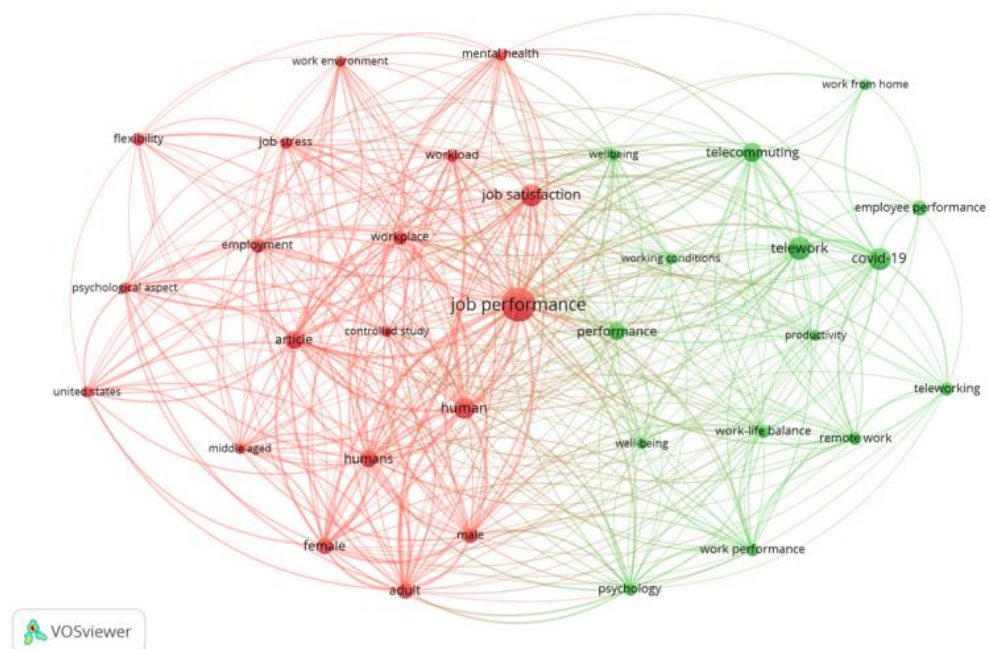


Figure 3. Keyword Co-Occurrence Network Visualization

The first period (1989–2019) of thematic evolution in Figure 3 revealed the motor theme and covered a variety of topics including workplace, telecommuting, health status, and job performance. The second is the later time frame (2020–2023), when fresh issues emerged and revealed little earlier discussion of flexible work schedules. Leading industries are IT, healthcare, and industrials; the literature primarily used quantitative techniques and focused on telecommuting as a hot issue. The red cluster usually focuses on offering insightful information about the elements affecting employee performance and promoting evidence-

based methods and useful tools to deal with modern workplace issues. The common goal of investigating elements that affect employee experiences and behaviors makes their correlation clear in the discussions in the green cluster about adding to the larger understanding of workplace dynamics and employee outcomes.

Furthermore, ten sectors related to publications are mapped using the Global Industry Classification System (GICS) of the sector and total of publications. It includes consumer discretionary (4), consumer staples (1), energy (1), financials (4), health care (12), industrials (11), information technology (20), materials (2), real estate (2), and telecommunication services and utilities (3).

Conclusion

This bibliometric study analyzed 106 research papers from the Scopus database (1989-2023) on the relationship between flexible work arrangements and employee performance. Key findings from the study include "Sustainability (Switzerland)" and the "European Journal of Work and Organizational Psychology" as top sources, the USA leads in publications and collaborations, and Gajendran RS as the leading author. Frequent keywords include "job", "performance", and "flexibility". Author Hill EJ (2003) has the highest citations. Science mapping reveals author collaborations, keyword clusters, and thematic evolution highlighting the impact of flexible work on employee performance, especially during the COVID-19 pandemic. Additionally, content analysis shows a predominance of quantitative studies focusing on telecommuting and a diverse range of sectors.

Future research in the future can consider expanding the database analyzed beyond Scopus to enrich the findings. Literature reviews particular to the telecommuting sub-topic can also be analyzed in future research. This study shows that this sub-topic can be expanded into multiple related sub-subtopics and has the most related publications such as work-life balance, part-time work, temporary contracts, and others.

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