Homework for New Changes in The Future: A Bibliometric Analysis

Andika Wulan Febriani 1*, Madziatul Churiyah 2,
1,2 Master of Management, State University of Malang, Malang, Indonesia

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ABSTRACT

This literature review focuses on the relationship between working from home (WFH) and the new future order. The method employed is a bibliometric literature review that was examined using VOSviewer software. The VOSviewer software analysis technique was used to assess papers produced via the Scopus database and utilized as a reference for researchers. The findings of 315 papers were cited from 2020 to 2022, with just 40 articles being evaluated. The researchers then clarified and visualized co-authorship, co-occurrence, and citation using VOSviewer software. This literature review, as a whole, provides a reliable starting point for additional research on the topic at hand. Working from home refers to a variety of methods of working that are common among today's workers. Working from home is a flexible and automated work method that allows employees to work from home via telecommuting, teleworking, and remote work by leveraging modern digital technology tools as a bridge to work. All men and women between the ages of 25 and 60 can work from home. Working flexibly in the "New Normal" focuses on the new order in the possibility of working from home is more focused on using SWOT analysis, which intends to read and observe working from home in the future.

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Introduction

As the world recovers from the COVID-19 pandemic, pondering the future of work from home has become the new norm virtually everywhere. The COVID-19 epidemic is attracting a part of the workforce that prefers to work from home. Several news stories have proven that the office has become more flexible and automated. According to recent research findings, just a small percentage of workers want to return to the workplace. Working flexibly will revert to pre-industrial subsistence, with the household serving as the primary focus (Islam, 2022). Working from home is a type of flexible working that employs homework restrictions; employment and urban planning are almost inseparable (Ministry & Mungkasa, 2020)

The number of home-based workers is fast expanding, providing researchers with a simple means to document the social, economic, and industrial groups transitioning to work from home, particularly among highly educated, white, and high-income professionals (Dingel & Neiman, 2020). Mongey et al., (2020) Many employees lost their employment to home-based workers as evidence of demand.
circumstances influencing job losses in the pandemic, as recently examined by Baqae, et al., (2020) and Guerrieri et al., (2020).

Working from home will result in less productivity loss from remote work in a more educated and higher paid industry (Bartik et al., 2020) In increasing employee productivity a company identifies the potential and pitfalls of WFH using a SWOT analysis (Vyas & Butakhieo, 2020). SWOT analysis is used to read and observe work from home (WFH) situations which focuses on SWOT analysis that applies strengths, weaknesses, opportunities, and threats to WFH in the future. Working from home (WFH) is a work arrangement where employees do not need to work in a centralized place (for example: office buildings, warehouses, supermarkets or shops), meaning that work activities that are usually carried out at work are then moved to operate elsewhere (Beck & Hensher, 2020).

Working from home (WFH) is also known as remote work, teleworking, and telecommuting, and each of these terms refers to a different activity. Many solutions, like as virtual private networks, cloud commutation, and online meeting software, make it possible for employees to work from home. As a result, many organizations allow their staff to work from home (Bao et al., 2022) Working from home for businesses is one of the most essential steps in enhancing job satisfaction. Differences in job appraisal emerge as a result of factors affecting the efficiency and quality of remote work, such as gender, age, education, work experience, and remote work experience (Raišienė et al., 2021)

With the implementation of working from home, it is hoped that all employees will be able to take advantage of modern digital tools such as computers, laptops, and equipped with WI-FI, which will serve as a bridge for the process of working remotely for all groups consisting of men and women between the ages of 25 and 60. Carli (2020) While working from home for social, work, and family reasons (coworkers, team, spouse, and parents) has a significant impact on organizational job satisfaction (Goswami, 2022). This study provides four questions concerning the influence of productivity when working from home for an extended period of time owing to the corona virus outbreak (COVID-19). These inquiries can be posed as follows: RQ1. Does working from home have an impact on employee productivity? RQ2. What are the most popular homework keywords related to the topic being studied, and how have they evolved/changed over the previous five years? RQ3. That is the researcher who has written the most scientific articles on the subject? What is their allegiance and where are they from? RQ4: Which of the top papers contributed to this study topic? The researcher wants to know the extent to which working from home affects employee productivity by looking at the most popular keywords on the topic studied can develop/change over the last five years focusing on the results of the top papers as contributing to the topic of this paper.
The researcher's findings present an overview of future studies on the topic of working from home (WFH) for the new order that facilitates employees while working from home, by applying flexible and automated work to remote work. The study's findings are significant for academics, researchers, and professionals in the field of knowledge, particularly at the WFH level for the new order. This is done so that employees may perform to the best of their abilities even if the work must be done remotely, which includes working from home using telecommuting/teleworking technology as a bridge to work. These findings can be used as a foundation for future research by researchers. To accomplish this purpose, bibliometric analysis techniques are employed in conjunction with VOSviewer software to give a visualization of the outcomes of data analysis from articles discovered when researching this literature (van Eck & Waltman, 2010).

**Literature Review**

Human resource capital, by far the most important form of capital in the modern economy, is one of the company's key sources, which includes expertise, knowledge, abilities, and skills earned via education, training, and health (Hale, 2020). Human resource management is simply a set of procedures for recruiting, hiring, transferring, and managing personnel in a business or organization (Margherita, 2022). Working from home is a basic role in human resources (HR) where individuals carry out their obligations and responsibilities for their firm. Working from home (WFH), often known as teleworking, is a work arrangement in which employees spend their working hours working from home (Rafiq et al., 2022). Working from home for businesses is one of the most essential steps in enhancing job satisfaction. Differences in job appraisal emerge as a result of factors affecting the efficiency and quality of remote work, such as gender, age, education, work experience, and remote work experience (Raišienė et al., 2021).

Working from home is being reintroduced as a free and flexible employment alternative Ministry & Mungkasas (2020). Meanwhile, WFH is a type of flexible working that employs home work restrictions, according to Ma'rifah et al., (2020) and Vania et al., (2021). Work and urban planning are no strangers to systematic work. Since the introduction of the new contagious virus COVID-19, remote work has grown popular in the workplace. Working from home is becoming more popular among businesses and employees. In the absence of a pandemic, some companies have instituted work-from-home policies for their staff. Organizational motives choose to work from home for a variety of reasons, including lower organizational costs such as rent, maintenance, computers, telephones, offices, utilities, equipment, and so on (Thorstensson, 2020). Similarly, when combining job classifications such as website testers, online teachers, virtual assistants, captioners, online therapists, proofreaders, graphic designers, instructors, social media managers, dubbers, and
public accountants, some can work from home, while agricultural, construction, and production work cannot (Dingel and Neiman, 2020).

In the meantime, according to Beck & Hensher, (2022). Working from home (WFH) is a work arrangement in which employees do not need to work in a centralized location (for example, office buildings, warehouses, supermarkets, or stores), implying that work that is normally done at work is relocated to another location. WFH is also known as remote work, teleworking, or telecommuting. Many techniques, such as virtual private networks, cloud computing, and online meeting software, make WFH possible, and more and more firms are allowing their workers to work from home. Working from home (WFH), according to Dalam (Ministry & Mungkasa, 2020), is an alternate option to avoid traffic bottlenecks in all parts of the city. Working from home (WFH) is a driving force in the short / long term for changes in worker productivity to generate a work decision (Etheridge and colleagues, 2020).

Working from home is becoming increasingly common among workers in today's modern economy, and major changes have been observed since the global spread of the COVID-19 contagious virus. Many firms follow government suggestions to implement working from home by carrying out everyday work operations online. Many elements influence the process of working from home (WFH), including company culture, working hours, facilities, income, welfare, and comfort. Recent technical advancements, globalization, societal trends, and organizational changes have introduced additional barriers to working from home (WFH). A significant element of workforce development is skilled and effective staff work. Working from home (WFH) entails not only shifting places of employment, but also giving employees with a free and flexible manner of working. Work from home (WFH) has an impact on productivity and job satisfaction, which is important for organizational development. Investing time and resources in developing a complete work from home (WFH) strategy is a wise decision. Poor work-from-home (WFH) options can have a number of unintended effects for employees, including greater turnover rates, worse performance effectiveness, lower productivity, lower job satisfaction, and lower work motivation.

Working from home, according to Vyas & Butakhieo, (2020), has a significant impact on employees' ability to identify the potential and pitfalls of WFH by using a SWOT analysis, which may aid in reading and observing WFH situations that focus on SWOT analysis that applies strengths, weaknesses, opportunities, and threats to WFH in the future. As illustrated in the study's table image (Ministry & Mungkasa, 2020), which indicates the proportion of workers from various nations, it is summarized as follows:
Tabel 1: Proportion of Workers from Homes in Different Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion (%)</th>
<th>Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>2</td>
<td>2011</td>
<td>National survey of information and communication technology</td>
</tr>
<tr>
<td>Belgia</td>
<td>23</td>
<td>2011</td>
<td>Belgian labor force survey</td>
</tr>
<tr>
<td>Finlandia</td>
<td>28</td>
<td>2013</td>
<td>Finland's work life barometer</td>
</tr>
<tr>
<td>Perancis</td>
<td>12</td>
<td>2004</td>
<td>DARES</td>
</tr>
<tr>
<td>Jerman</td>
<td>12</td>
<td>2014</td>
<td>Microzensus</td>
</tr>
<tr>
<td>Hongaria</td>
<td>1</td>
<td>2014</td>
<td>Hungarian labor force survey</td>
</tr>
<tr>
<td>India</td>
<td>19</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>Italia</td>
<td>5</td>
<td>2013</td>
<td>Smart work observatory of Milan polytechnic university</td>
</tr>
<tr>
<td>Jepang</td>
<td>16</td>
<td>2014</td>
<td>Teleworking population research</td>
</tr>
<tr>
<td>Belanda</td>
<td>15</td>
<td>2014</td>
<td>Statistics Netherlands and TNO</td>
</tr>
<tr>
<td>Spanyol</td>
<td>7</td>
<td>2011</td>
<td>National working conditions survey</td>
</tr>
<tr>
<td>Swedia</td>
<td>32</td>
<td>2012</td>
<td>Sweden stats</td>
</tr>
<tr>
<td>Inggris</td>
<td>4</td>
<td>2015</td>
<td>Labor force survey office</td>
</tr>
<tr>
<td>AS</td>
<td>20</td>
<td>2012</td>
<td>General Social Survey (GSS)</td>
</tr>
</tbody>
</table>

Method

The research focuses on working from home for the new future order. Garza-Reyes (2015) describes how research employs bibliometric literature to map data in a systematic and precise manner. The application focuses on knowledge limits (Tranfield et al., 2003). According to Setyaningsih et al., (2018) and Tranfield et al., (2003), researchers employed the five steps, which can be stated as follows:

![Five Stages of Bibliometric Literature Study Method](image)

Figure 1 : Five Stages of Bibliometric Literature Study Method
1. Determine Search Keywords

The article's keywords were "work from home" OR "telecommuting" OR "teleworking" OR "remote work." An article search in the Scopus database was undertaken in March 2022 as a reputable and high-quality reference source in the issue area of this research (Baas and colleagues, 2020).

2. Initial Search Results

Articles on "journal" and "proceedings" with only "title words" and the year "2020-2022" will be found. In the initial search, 315 items were discovered. The findings are saved in CSV format, and then significant information from the article is entered, such as the title, author's name, affiliation, abstract, keywords, and references.

3. Refinement of Search Results

First, appropriate and indexed articles from the Scopus database are screened, with the goal of picking articles from "journals" and "proceedings." Appropriate modifications to the article metadata are made in an excel file, which is then stored in a CSV file so that the data may be analyzed further.

4. Compile Preliminary Data Statistics

The collected data is saved in CSV format. At the initial stage, the researcher checks the complete components of journal articles and proceedings according to (year, publication, volume, number, pages, etc.) to add the necessary information if there are findings of incomplete data. Data analysis was performed in order for articles to be categorized based on the year of publication according to the publisher's publication source.

5. Data Analysis

Bibliometric literature studies employ VOSviewer Software to analyze and visualize data on a bibliometric network for study. VOSviewer is used at the level of its ability to analyze data effectively and efficiently. Large datasets with adjustable graphics, analysis, and explorations are available (van Eck and Waltman, 2010). Through a co-cited keyword map-making cycle, VOSviewer can also construct publishing networks, research maps, and article maps in co-cited (Nur et al., 2020).

Result and Discussion

The study looked at the terms "work from home" OR "telecommuting" OR "teleworking" OR "remote work." In the years 2020-2022, the literature sources were published in Scopus indexed journals and sessions in English. Three factors were examined: co-authorship, co-authorship, and co-authorship. -accuracy, as well as citation Using the VOSvieweter software for bibliometric analysis of literature studies. The researcher employs the fewest number of instances in each presentation of co-authorship, co-accurence, and citation meta data. 1. Because of a paucity of literature sources gathered in the research area of usage work from home (WFH) for a future order The usage of VOSvieweter software aids in the classification and
visualization of data collected by researchers Nur et al., (2020) and van Eck & Waltman, (2010).

a. Co-Authorship

![Network Visualization of Co-Authorship Metadata (Author Name)](image)

Figure 2: Network Visualization of Co-Authorship Metadata (Author Name)

The data in Figure 2 is studied, and it can be seen that there is a group of authors consisting of many names based on the research topic, which shows that each name has a connected network. This signifies that each name is related to the others. In accordance with the topic of work from home (WFH) for a new future order. Broadly speaking, working from home has been widely studied, by showing data on the names of researchers who are interrelated with each other, it can be concluded that working from home is very influential on all aspects of workers' life activities.

![Network Visualization of Co-Authorship Metadata (Author Name)](image)

Figure 3: Network Visualization of Co-Authorship Metadata (Author Name)
Each year, the data in Figure 3 shows a change in the author's name. As a result, the yellower the cluster name, the more up-to-date the research. However, the above metadata results show blue cluster names, implying that the longer the research is still being developed, the more blue cluster names will appear. The name change that appears in blue every year means that work done from home will be more researched and applied to work activities.

![Figure 3: Network Visualization of Co-Authorship Metadata (Author Country)](image)

The statistics in Figure 4 show that the studies are not related to each other. The research was conducted by utilizing at least one network, which is the strongest network of all networks. Because there seems to be no connection between one network and another. By showing different cluster colors, it can be seen that there is no correlation between the clusters. The brighter the color and the shape of large lumps, it can be concluded that the study is the strongest cluster network to be studied.

![Figure 4: Network Visualization of Co-Authorship Metadata (Author Country)](image)

Figure 4: Network Visualization of Co-Authorship Metadata (Author Country)

The statistics in Figure 4 show that the studies are not related to each other. The research was conducted by utilizing at least one network, which is the strongest network of all networks. Because there seems to be no connection between one network and another. By showing different cluster colors, it can be seen that there is no correlation between the clusters. The brighter the color and the shape of large lumps, it can be concluded that the study is the strongest cluster network to be studied.

![Figure 5: Network Visualization of Co-Authorship Metadata (Author Country)](image)

Figure 5: Network Visualization of Co-Authorship Metadata (Author Country)
The statistics in Figure 5 show that the studies are not related to each other. The strongest network of all networks is the result of research that does not use at least one. Because there is no relationship between clusters in the network. By showing that the cluster network does not have a relationship between one study and another, the researcher as a whole can develop the theory more so that it is feasible to be applied in future work activities.

Figure 6: Network Visualization of Co-Authorship Metadata (Author Country)

The data in Figure 6 is a mixture of Figures 4 and 5, showing that the findings of the country name analysis show that there is no relationship between one cluster network and another. The cluster shows that broadly speaking, the United States has done a lot of research on how workers when working from home are implemented. Then followed by two big countries, namely Thailand and Indonesia which can show results that research on working from home has been researched. As a result, the majority of writers on the work from home (WFH) study for the future, point to the United States, followed by Thailand and Indonesia.

Figure 7: Network Visualization of Co-Authorship (Author Organization) Metadata
Figure 7 data shows that the results can be read in outline almost all organizations around the world have researched about the change in working from home even almost all companies have implemented and carried out the activities of workers in a company organization. So that it can be studied and shows that there is a group of authors consisting of many organizations based on the topic of study, showing that every organization has a connected network. This means that every organization has relationships with others.

b. Co-Accurence

![Figure 8: Network Visualization of Co-Accurence Metadata (Keywords)](image)

The data on the strategy shown in the image above can be seen in outline research on working from home was widely studied at a time when the entire global world was being hit by the COVID-19 Pandemic, which forced employees to do their work from home. Research using keywords in research related to work from home (WFH) for the future is very diverse. This can be observed in Figure 9, where there are many clusters that are very likely to be created, implying that future researchers can more precisely tie work from home to future settings.

![Figure 9: Overlay Visualization Against Co-Accurance Metadata (Keywords)](image)
Every year, there is a keyword development, as shown in Figure 10. The yellow color of the term cluster structure indicates how recently this research was conducted. Similarly, the bluer the keyword cluster can be read that the cluster structure is still more often this research is carried out. While in the green cluster the results of the structure indicate that the research is carried out almost every time in research so that the investigation is wider. The findings of this relevance are very valuable to support the direction of academic research in the field of work from home for the new order in the future, in accordance with the developing trends in this modern era, so that it can meet the needs of this modern era. workplace.

a. Citation

The goal of data analysis of the most citations in the work from home (WFH) study issue for the new order in the future is to determine which papers have the greatest influence on the growth of knowledge in this sector. The number of writers reviewing past studies from Indonesia demonstrates that just a handful have contributed to the top ten referenced papers. The findings of this study can be utilized as a reflection for Indonesian researchers, as just a few have contributed to the development of scientific treasures in the field of deciding work from home (WFH) for the future order. In greater detail, the top ten cited articles are as follows.

Table 2. Top 10 Cited Articles

<table>
<thead>
<tr>
<th>No.</th>
<th>Publication Year</th>
<th>Author</th>
<th>Title</th>
<th>Journal</th>
<th>Cites</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2020</td>
<td>Dingel JI &amp; Neiman, B</td>
<td>What kind of work can be done at home.</td>
<td>Journal of Public Economic</td>
<td>210</td>
<td>Elsevier</td>
</tr>
<tr>
<td>2</td>
<td>2020</td>
<td>De Haas, M, Faber, R and Hamersma, M</td>
<td>Good lockdown in activities, work and travel behavior during covid-19</td>
<td>Pre-proof Journal</td>
<td>197</td>
<td>Elsevier Ltd.</td>
</tr>
<tr>
<td>3</td>
<td>2020</td>
<td>Shamshiripoure, A, Rahimi, E, Shabanpour, R &amp;</td>
<td>Re-establishment of activities</td>
<td>Transport Interdisc</td>
<td>110</td>
<td>Elsevier Inc.</td>
</tr>
<tr>
<td>No.</td>
<td>Publication Year</td>
<td>Author</td>
<td>Title</td>
<td>Journal</td>
<td>Cites</td>
<td>Publisher</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------</td>
<td>--------</td>
<td>-------</td>
<td>---------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>4</td>
<td>2020</td>
<td>Mohammadian, A. (Kouroso)</td>
<td>and travel during covid-19.</td>
<td>plenary perspectives</td>
<td>98</td>
<td>European Journal Of Information System,2020</td>
</tr>
<tr>
<td>9</td>
<td>2020</td>
<td>Raisiene, AG, Rapuano, V., and Varkuleviciute, Sensitive women and men to work from</td>
<td>Sustainability,2020</td>
<td></td>
<td>64</td>
<td>MDPI</td>
</tr>
</tbody>
</table>
Table 2 demonstrates that the top ten cited publications, placed first, are from Chicago University in America (Dingel & Neiman, 2020). A total of 210 articles have been cited in each June 2020 that examine the usage of working from home (WFH) for future business or family arrangements. This study provides guidance on what jobs can be done at home, with considerable differences amongst jobs. For instance, a manager, educator, information technology, finance, and law are all jobs that can be done from home. Construction and production cannot be performed at home by agricultural laborers.

Furthermore, publications authored by de Haas et al., (2020) from the Netherlands Institute for Transport Policy Analysis, Netherlands, receive the second highest number of citations. In each April 2020, 197 articles were quoted discussing the usage of working from home (WFH) for future arrangements at the level of everyday activity. According to statistics, 88 percent of the Dutch population prefers individual forms of transportation over public or shared modes of transportation. This study provides guidance on home work that can affect mobility behavior on structural behavior change by combining longitudinally about behavior, attitudes,
and preferences during the coronavirus crisis based on case numbers, government legislation, and past behavioral trends.

Finally, the third most cited citation is a paper written by Shamshiripour et al., (2020) from Chicago University of Illinois in the United States. There have been 110 articles cited in every June 2020 exploring the usage of working from home (WFH) for future preparations for modifying aspects of people's travel behavior. People's mobility styles include habits, tendencies, and long-distance activity level orientation (through online shopping, online business meetings and working from home etc) By offering policy insights to enable proactive planning for more egalitarian, sustainable, and resilient cities.

It has the greatest influence of the three discoveries, as evidenced by the most citations. Even in the author's publication Waizenegger et al., (2020), there appear to be numerous citations that propagate around the network of articles that are sourced from the literature of the researchers' conclusions. Seven other papers contributed as a result of the numerous citations. These discoveries can be used as a foundation for further searches for reference sources on the topic of working from home (WFH) for a new order.

Figure 10: Network Visualization of Metadata Citation
The largest clusters in Figure 10 are Dingel & Neiman, (2020) and de Haas et al., (2020), followed by other names. They are researchers who are heavily involved in studies on the future implementation of work from home (WFH) for the new order. The consequences of these discoveries can be utilized as a reference as an expert while conducting public lectures or other related topics.

Discussion

There are still little research literature studies on work from home (WFH) for the future order, particularly in Indonesia. According to the research findings, the most of them come from Asia, such as America and Thailand. Working from home (WFH) popularity affects employee productivity (Bao et al., 2022), the COVID-19 pandemic (Davis et al., 2020), the development of working from home (WFH) through teleworking, telecommuting, and remote working (Carillo et al., 2021), and it is important to conduct special research on work from home (WFH) in the new order in the future. Working from home (WFH) is distinguished by a focus on working freely and flexibly toward work decisions, with employees having to be able to handle new technologies in today's digital environment (Raišienė et al. 2021).

Given the importance of doing research on work from home (WFH), researchers must collaborate across borders. Collaboration now takes place exclusively between universities in one country. Geographical borders can be used to combine empirical data that result in the development of human resources in a variety of countries. By providing policymakers with information that will allow them to design for a more egalitarian, sustainable, and resilient urban structure in the future (Shamshiripour et al., 2020).

The availability of bibliometric analysis can provide an overview of keywords on the issue of working from home (WFH) study for a new order in the future, which is expanding year after year. With these discoveries, it is envisaged that researchers will be able to link terms in greater detail with one another, resulting in empirically significant findings (Khan & Gupta, 2021a). The government has opted to work from home as an alternative to working remotely around the worldwide world that has been touched by COVID-19 by constructing a work from home (WFH) program that was developed through a SWOT analysis to see future advancements (Vyas & Butakhieo, 2020). As a result, research in the subject of working from home (WFH) is becoming increasingly significant.

The article with the most citations contributed the most to this research, thus it can be utilized as a key reference source for future researchers and academics investigating and creating new discoveries on the issue of working from home (WFH) for the new order. These findings have consequences for new writers who
have a strong interest in the associated subject of study, as it is possible to become an expert in presenting public lectures or the like as a result of these findings.

Conclusion

The study employed bibliometric analytic techniques on 315 papers published in Scopus-indexed journals and sessions between 2020 and 2022. As a result, it presents an overview of future study on the topic of working from home (WFH) for the new order. The research is based on the keywords "work from home" OR "telecommuting" OR "teleworking" OR "remote work." This gives a framework for academics and researchers to conduct additional research on relevant themes. This study has limitations in that the analysis was only conducted in the last two years (2020-2022). Whereas, in 2023, potentially after the COVID-19 pandemic, other researchers will perform a large amount of research on the topic of working from home. Its purpose is to facilitate working from home, including flexible and automated methods of working. It can then be utilized in other databases, such as Web of Science, to support research findings on relevant topics. Collaboration among authors from different corners of the world is critical in order to develop more meaningful empirical findings.

References


