TELECOMMUTING AND PERFORMANCE: IMPACT ON PERFORMANCE FROM WORKING REMOTELY

by

RAVEN SMALL

B.S., Fort Valley State University, 2012
M.S., Middle Georgia State University, 2020

A Research Paper Submitted to the School of Computing Faculty of Middle Georgia State University in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF SCIENCE IN INFORMATION TECHNOLOGY

MACON, GEORGIA
2023
Telecommuting and performance: Impact on performance from working remotely

Raven Small, Middle Georgia State University, raven.small@mga.edu

Abstract

This paper investigates the impact of telecommuting on an employee’s work performance. Telecommuting (sometimes referred to as Work from home (WFH), teleworking or remote working) is a kind of work organization in which individuals routinely carry out their professional responsibilities outside of the workplace and are organized by their employer using information and communication technologies (de Klerk, 2021). Telework is thought to boost performance within the organization, secure retention, strengthen organizational commitment, and increase productivity (Martin & Mesler, 2012). Adopting the method of working from home has typically been portrayed as a deliberate decision that necessitates planning, preparation, and adaptation for employers to better support employees' productivity and a healthy work-life balance. Employees’ work-life balance, productivity, and communication were the themes analyzed, to determine the impact that working remotely has on job performance. The study focuses on how productivity is affected by teleworking, how people feel about working from home versus traditional office positions, how to maintain a healthy work-life balance, how employee communication is affected, and how teleworking affects an individual’s performance.

Keywords: Performance, telecommute, telework, working remotely, Work from home (WFH), Covid-19, Virtual

Introduction

Remote work is defined as a flexible work arrangement in which individuals carry out their duties away from their main offices or production facilities, interacting with their coworkers instead through technology rather than in person (Wang et al, 2021). Performance can be described as the assessment of work being done at a company. The internal and external settings of a person's life, including their occupation and working conditions as some of the most significant elements, affect their patterns of thinking and emotion, which in turn can negatively affect their way of life and ability to perform at work (Faller, 2021). In November 2021, more than 4.5 million Americans voluntarily left their employment and began working at companies that allowed them to work remotely or in a hybrid environment (Wiles, 2022).

Telecommuting in this paper focuses on the use of the Internet, email, and telephone allowing employees to work from home. The process or action of performing or executing a task, operation, or function is defined as performance. Telecommuting was implemented for many companies during the Covid-19 pandemic for government and private sector employees. The way businesses are run and how people interact with one another to complete tasks and achieve goals at work have all been radically altered by telecommuting. Many workers can now work virtually anywhere thanks to modern technology. Telecommuting positively affects individual, group, and organizational productivity through improved performance, fewer office expenses, decreased absenteeism, and quicker customer response times (Pinsonneault and Boisvert, 2001). This study could provide insightful data on the effects of remote work on individuals and the workplace both during and after the pandemic.

Problem Statement

Companies typically support their employees' usage of remote applications, but they also frequently raise concerns about employees working outside of their normal workplace. Concerns about employees' activities, measuring their productivity, and guaranteeing task completion exist. Therefore, it is imperative to study the significance of remote workers’ performance.
Purpose of the Study

The purpose of this study is to explore the impact working remotely has on an employee’s work performance and well-being, job satisfaction, internal communication, and experience with managerial feedback to determine how this impact the performance of remote workers. Consistent with the study’s purpose, this researcher will ask the following research question.

Research Question

RQ1: How does telecommuting impact an employee’s work performance?

Review of the literature

Job performance is defined as the efficient completion of duties or a job, as well as a worker's useful contribution to the social work environment (Abramis, 1994, as cited in Kifor et al, 2022). Work performance is affected by a worker's choice to work from home (WFH) and the percentage of coworkers who do the same (Lippe, 2020). Employees who experience a certain amount of stress and anxiety perform worse because they lack confidence and interest in accepting responsibility (Satpathy et al, 2021). Employees with lower performance levels are more affected by the WFH engagement effect, while respondents with higher performance levels experience a decreasing trend (Kifor, 2022).

Studies show that teleworking was associated with higher job satisfaction, improved communication between employees, better collaboration between teams, and enhanced productivity. Furthermore, it revealed that successful remote working practices depend on effective communication strategies and collaboration tools. In the same regard, Grover and Lillrank (2019) investigated how telecommuting affects worker stress levels. Through their research, they concluded that teleworking could reduce stress levels due to increased flexibility in working hours, fewer distractions at home, and better work-life balance. Moreover, they noted that proper communication tools are necessary to ensure successful remote working practices.

Liang and Liu (2018) conducted a study on how telecommuting affects team performance. The research showed that teleworking could improve the productivity of teams, enhance collaboration between employees and reduce costs for organizations. Furthermore, it revealed that effective communication strategies and collaboration tools are essential for successful teleworking practices. Additionally, Sandhu, et al (2018), evaluated the impact of telecommuting on employee engagement levels. They concluded that remote workers tend to be more engaged in their jobs due to increased autonomy in managing their tasks, better work-life balance, and improved relationships with their supervisors. Additionally, they suggested that effective communication strategies and collaboration tools would help to ensure successful remote working practices.

Maurer, et al (2018) investigated the effects of telecommuting on organizational performance. They concluded that teleworking could lead to higher job satisfaction, increased productivity, and improved communication between teams due to better collaboration and communication tools. Furthermore, they found that proper team management is necessary for successful remote working practices. Likewise, Yin, et al (2019) examined how telecommuting affects employee motivation levels. Their research demonstrated that teleworking could increase employee motivation due to better work-life balance, more autonomy in managing tasks, and increased job satisfaction. Moreover, they noted that proper communication strategies and collaboration tools are essential for successful remote working practices.
WFH experiences and employee engagement are significantly impacted by organizational and managerial support (de Klerk, 2021). Poor communication and a lack of a WFH setup are two factors that hurt employee productivity (Kifor, 2022). The lack of immediate informal communication with co-workers was frustrating to the workforce, which left many individuals feeling lonely and yearning for physical and interpersonal contact, which led to stressful circumstances (de Klerk, 2021). Having a teenager, being more open with coworkers, having a dedicated workplace, and being in better physical and mental health all had a beneficial effect on productivity. (Awada et al, 2021). Employees may have gained an understanding of the value of online communication tools in fostering an atmosphere of teamwork through active staff engagement in virtual settings, such as small group meetings and discussions that can be held using Zoom's breakout room feature (Wut, 2022).

The pandemic has had a significant role in transitioning from a traditional work environment to a work-from-home one. Normal workday routines have been dramatically upset by COVID-19, but this event has also accelerated tendencies toward the transfer of workers to the online or virtual mode that was already well underway (Kumar et al, 2021). The work-from-home (WFH) concept was quickly embraced by most organizations, including educational institutions, schools, corporate offices, some businesses, and government agencies (Shareena & Shahid, 2020). Within a few weeks, the COVID-19 epidemic markedly accelerated the change of working face-to-face to remotely, moving 35% of American workers and 80% of all corporate remote work policies away from largely co-located and face-to-face contacts and toward virtual and hybrid forms of collaboration. According to Kumar et al (2021), Covid-19 mandatory WFH induces stress factors, which made it difficult for working professionals to manage work and home responsibilities. Life happiness has decreased because of significantly increased levels of discomfort and impaired job performance due to the COVID-19 epidemic (Kumar et al, 2021).

**Methodology**

The analyzed studies were evaluated according to their methodological quality, as measured by the Newcastle-Ottawa Scale (McGowan et al., 2020). Only studies with a score of five or higher were considered in this paper. This investigation aimed to answer the questions: what is the impact of telecommuting on individual and organizational performance?

The search process began by identifying relevant terms that addressed the research question. Search terms were developed using a combination of Boolean operators such as ‘performance’. Next, a comprehensive search was conducted of the following electronic databases: GALILEO, PubMed, EBSCOhost, ProQuest, Scopus, and Web of Science for relevant peer-reviewed articles. The search strategy used keywords such as ‘telecommuting’ and synonyms such as ‘telework’ or ‘remote work’ to ensure the reliability and validity of the search results. Boolean operators (AND/OR) were also used. The search was limited to English language journals and only articles published within the last ten years (2013-2023). All empirical studies were excluded if they did not address any of the following variables: performance, telecommuting, telework, work, collaboration, teams, or groups. The inclusion criteria also required that the study had a clear focus on the impact of telecommuting and was published in an English-language, peer-reviewed journal.

**Data Analysis**

Once the search was conducted, results were screened for relevance in two stages. In the first stage, the titles and abstracts of articles were examined to determine if they met the inclusion criteria. In the second stage, those selected from the first pass had their full texts retrieved and carefully examined on a second
pass. Then, whether the studies met all the inclusion criteria and could be included in the final dataset was determined. Finally, data extraction was conducted to identify common themes among the studies. Retrieved articles (N=384) were imported into Mendeley, which automatically identifies duplicates from the imported references and removed the duplicates (N=23). The extracted data were then synthesized into a narrative review that discussed the results of the studies, identified common themes among them, and discussed their implications. In addition to this review, an analysis was conducted to assess the methodological quality of the included studies. The articles that did not meet the inclusion criteria were excluded.

**Total Articles Identified (N=384)**
- Database 1: Galileo (N=74)
- Database 2: PubMed (N=83)
- Database 3: EBSCOhost (N=64)
- Database 4: Google Scholar (N=63)
- Database 5: Mendeley (N=100)

**Articles Requiring title/abstract review after deleting Duplicates (N=320)**

**Articles excluded (N=157)**
See Table 1 for Common theme patterns in excluded studies

**Articles requiring full-text review after completing the First screening (N = 59)**

**The final number of articles included in the review (N = 23)**

*Figure 1. Systematic review flow chart*
<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research must be conducted by working virtually, remotely, or telecommuting</td>
<td>Excluded sources of research include conference proceedings, book chapters, magazines, news, and posters.</td>
</tr>
<tr>
<td>Research must report the impact of actual performance when working remotely</td>
<td>Research that just reports on working remotely without reporting empirical findings on how it affects performance, for instance, is not included because it is unfinished.</td>
</tr>
<tr>
<td>Research must be published because empirical studies show how performance in remote situations affects outcomes.</td>
<td>Empirical research merely used self-report data collection, such as interview or surveys, are excluded.</td>
</tr>
<tr>
<td>Research must be published in a peer-reviewed journal.</td>
<td>Research before 2013</td>
</tr>
<tr>
<td>The review included studies that were published between 2013 and 2023</td>
<td></td>
</tr>
</tbody>
</table>

**Results and Findings**

This research was conducted to assess the impact of telecommuting on individual performance and identify themes for working in a remote workforce. It is believed that these findings are an important step towards realizing the potential benefits offered by telecommuting and can help organizations maximize the performance of their remote employees. The results of this research project provide evidence that telecommuting can have a positive impact on individual and organizational performance, in terms of both productivity and collaboration. Additionally, the findings suggest that certain themes can help ensure successful remote work. These include devising clear communication strategies, increasing productivity, and maintaining a healthy work-life balance (Galanti et al., 2021).

The outcomes listed below are a narrative synthesis of all the studies that were included. The final sample is made up of 23 studies involving individuals who worked in a remote environment. There was an international representation of countries where students were conducting including, but not limited to Europe, the U.S., and China. This review initially discusses studies that draw upon the impact of performance with the respect to working virtually and then it elaborates on the themes of productivity, communication, and work-life balance.

**Communication and Job Performance**

The results indicated that communicating in a virtual system can hinder relationships, as well as performance. There is limited data available to determine whether there is a relationship between telecommuting and communication that could positively impact performance. It can be determined that ineffective communication can negatively impact performance when working virtually. According to prior research, using digital technologies to communicate may only partially alleviate the isolation that employees feel compared to the social interactions that people generally have at work and in their personal lives, such as going to the gym or seeing friends (Wut et al., 2022).
Work-Life Balance and Job Performance

Work-life balance is characterized by several factors, including stress, psychological well-being, professional isolation, job autonomy, job satisfaction, and conflicts between work and family. Prior research demonstrated a substantial relationship between employee attitudes and engagement and work-life balance, which is favorably correlated with job performance (Grover and Lillrank, 2019). While virtual forms of work organization agree with new performance controls, work intensification, and the encroachment of work-related demands into personal lives, they also promise more self-determination for employees due to the potential for a more flexible organization of work and time and the natural tendencies towards result-oriented control (Faller, 2021). Working from home offers flexibility, which can reduce family-work conflict and ultimately increase job performance.

Productivity and Job Performance

For many workers, remote work is now the norm, but some managers are still worried that it won't produce the same level of output as on-site employment (Wiles, 2022). Studies show that productivity increased when employees worked from home (Alassaf, et al, 2023). By merging core and periphery workers, forcing work-from-home arrangements can improve involvement in workplace learning while fostering the development of new abilities. Although extensive research has been done on the traditional office work environment the telework environment and its effect on satisfaction are not sufficiently well-understood in a consistent manner, as productivity, and mental health of teleworkers, as well as the subtleties affecting their intentions. When a person's work and family obligations conflict, it results in a lower level of balancing participation in both, which is reflected in decreased productivity and performance (Alassaf, et al, 2023). Studies should consider the worker’s productivity as an important aspect of performance since an employee’s performance has a direct impact on an employee’s productivity.

Table 2: Theme, Reference, and Main Contribution of Key Articles

<table>
<thead>
<tr>
<th>Theme</th>
<th>Authors (Year)</th>
<th>Main Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Faller G. (2021).</td>
<td>Workplace health</td>
</tr>
</tbody>
</table>
Limitations of the Study

Several limitations need to be acknowledged. First, this paper relies on articles from previous research articles relating to telework and job performance. Second, the data of these research articles were collected before and during the pandemic, which could consist of biased data due to some individuals being forced to adjust to teleworking and overcome challenges with performance. The limitations of this study include the fact that it is based on a limited number of sources, which could potentially mean that there are some gaps in the data. Additionally, since the study focuses solely on telecommuting and performance outcomes, it does not consider other factors such as employees’ self-efficacy, technology access, employees’ objectives, situational constraints (noise, ventilation, temperature, and light), interaction with co-workers, personality traits, and an employee’s relationship with management. In general, extreme, or minimal performance examples are interesting in and of themselves, and it would be worthwhile to investigate them further rather than brushing them off as "outliers". There are several research studies on work performance and its predictors in the literature, most of which concentrate on classic WFO environments. Further research must determine whether the findings may be used in the new WFH scenarios. Despite these limitations, this study provides valuable insight into the impact of telecommuting on team performance and is crucial for organizations looking to improve their remote working practices.

Recommendations for Future

Some recommendations for the future of telecommuting revolve around expanding research on this topic to include a larger array of articles, as well as considering other themes such as employees setting clear objectives, personal isolation, compensation, and employee personal profile (age, gender, education) on employee performance when working remotely. Additionally, organizations should explore new methods to measure performance when telecommuting to gain better insight into how it affects individual productivity levels. Finally, companies should look at ways of incentivizing employees who telecommute successfully, such as providing flexible working arrangements or offering rewards for the successful completion of tasks. It will also be interesting to discover different clusters of teleworking behavior patterns and observe how employees belonging to different activity domains are influenced by employment characteristics. Changing the assessment perspective from employees to managers would be another intriguing research area. Overall, this study provides an important contribution to our understanding of telecommuting and its impact on employees’ job performance in a remote workforce.
Conclusion

In conclusion, this research project provides a comprehensive study into the impact of telecommuting on performance and offers valuable insight into how employee productivity, work-life balance, and communication can successfully optimize performance when working in a remote environment. The analysis revealed that there’s a relationship between telework and performance, depending on whether the sample consisted of many people from one company or one individual per company. With these findings in mind, organizations can develop effective strategies for remote working practices, ultimately leading to increased performance levels. Ultimately, this research project contributes an important understanding of telecommuting and Performance and is essential for any organization looking to manage its remote workforce. By considering these insights, they can build effective strategies for remote working practices, ultimately leading to increased work performance. The analysis of the WFH system's various factors revealed that job performance is a complicated idea that is influenced by aspects related to the individual, the organizational setting, and the work-life balance. This research makes contributions to the field of remote work, which has attracted a lot of attention since the COVID-19 pandemic (Awada et al, 2019; Broomfield, 2022; Satpathy et al, 2021). The COVID-19 lockdown offered a distinctive setting for research on remote work. Employees and organizations were allowed to experience working from home for the first time in a straightforward, obligatory manner that was devoid of idealistic aspirations (de Klerk et al, 2021). It is hoped that this study contributes to the literature concerning remote work impacting an employee’s performance.

References


