
Impact of Hybrid Work Models on Software Developers' Productivity in Medium–Scale IT Companies in Colombo District

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A B S T R A C T

Organizations have changed their work practices quickly as a result of the new environment of hybrid working, especially in the information technology industry. Hybrid working is a mixture of working from home and at the office, offering employees more flexibility and also opportunities to meet and collaborate in the workplace and receive support from the organization. Although hybrid working is becoming more common, there are concerns about how hybrid working affects productivity at work. Hence this study focuses the effect of the dimensions of a hybrid work model on employee productivity among software developers in the medium-sized IT companies in Colombo. In particular, the study examines the productivity impacts of the ratio of remote work, flexibility, and scheduling. A quantitative research design was utilized and data were gathered using a structured questionnaire distributed to software developers who work under hybrid working conditions. The IBM SPSS software was used to analyze 153 valid responses. The relationships between the variables were investigated by descriptive statistics, reliability analysis and multiple regression analysis. The findings of the study add to the extant literature on hybrid working, and offer practical implications for organizations aiming to create successful hybrid working policies. The results highlight the need to keep a balanced hybrid working model in place, which would be flexible and enable proper scheduling and effective cooperation.

Keywords: Flexibility, Hybrid Work Model, Productivity, Remote Work Ratio, Scheduling.

1. Introduction and Research Problem

The advent of digital technologies and the changing attitudes of workers have dramatically changed the work world in all sectors. Flexibility in the workplace is becoming more and more popular as employers look to boost productivity and benefit employee health and work-life balance. One of these trends has emerged as a significant workplace model all over the world hybrid work. Hybrid work is a model that integrates remote and office working, allowing

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workers to execute their work from several different locations while staying connected with their organization.

The Covid-19 pandemic has been a catalyst for the shift towards working remotely and hybrid work arrangements globally. While many organizations adopted remote working during health restrictions, many have now made a shift to hybrid working as part of their long-term working models. The use of hybrid working has been embraced in particular by the information technology sector since many activities in software development can be done via digital collaboration tools and cloud-based platforms.

Post-pandemic data suggests that there is no universal "best" hybrid setup for all software workers. A case study revealed that the configurations of hybrid work modes are influenced by individual preferences, work-life balance, team characteristics, project characteristics, client requirements, and organizational strategies of 545 software professionals (De Souza Santos et al., 2024). In a similar study, Nguyen-Duc et al. (2024) have found that WFH can pose opportunities and challenges for SE practices and project management. The results highlight the need to look at specific aspects of hybrid work and not understand hybrid work as one concept.

Hybrid working provides a number of advantages. Staff can enjoy more flexibility and better work-life balance, as well as less commuting time. Companies can enjoy higher employee satisfaction, lower business expenses and better recruitment and retention. Despite these benefits, there is still some doubt about the success of hybrid working to keep employees productive.

The connection between hybrid working and productivity has been found to be different in previous studies. There are some researchers who suggest that flexible working arrangements have a positive effect on employee performance because they are making more choices and are more motivated. Others argue that with too much remote working, there can be communication issues, less team collaboration, and a negative impact on team coordination. The results underscore the need for more research into what parts of hybrid work affect employee productivity, and suggest that the dimensions are distinct.

The software development career demands ongoing teamwork, communication, problem solving and sharing of information across team members. It is therefore crucial to comprehend the impact of hybrid work dimensions on productivity, especially in software development settings. While foreign research has focused on hybrid working, there are limited empirical studies in the Sri Lankan context.

Hence, the present study aims to fill this gap by investigating how the ratio of remote working, flexibility, and employee's work schedule affect their productivity while working in medium scale IT companies in Colombo, Sri Lanka, as software developers. The purpose of the study is to shed light on issues for organizational decision making for creating and executing good hybrid work policies.

2. Research Methodology

The research method used in this study was quantitative research because the study aimed to examine the effect of the dimensions of the hybrid work model on employee productivity. The quantitative approach was chosen as it allows for the variables to be measured objectively and can be tested statistically to determine the relationships between the variables.

The study was restricted to software developers working in the medium size IT companies in Colombo. The data were taken from a structured questionnaire that included questions to

measure remote work ratio, flexibility, scheduling, and employee productivity. The answers were measured on a 5 point Likert scale from strongly disagree to strongly agree.

The conceptual framework proposed was the remote work ratio, flexibility, and scheduling as independent variables with employee productivity as the dependent variable. Three hypotheses about the relationships between the above variables were tested.

A structured questionnaire was used to gather data from the software developers of medium scale IT companies in Colombo District. Convenience sampling method was employed and 153 valid responses were received. Google forms was used to send out the questionnaire. The internal consistency reliability was examined to determine the internal consistency of measurement scales. The data on the perception of the respondents about the study variables has been presented through descriptive statistics. Multiple regression analysis was used to investigate how much the dimensions of hybrid work affect employee productivity. In this study, medium scale enterprises in the service sector are defined as the enterprises with 51 to 200 employees, according to the Sri Lankan classification of SMEs.

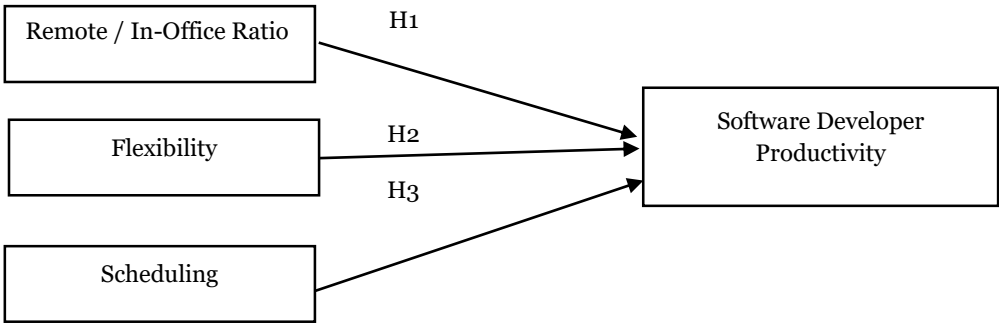


Figure 2.1: Discussion of the Findings

3. Results and Discussion

The results of the reliability analysis showed that the measurement scales were suitable for further statistical analysis and had acceptable internal consistency. Descriptive statistics showed that the general attitude of the respondents about flexibility, scheduling and productivity in their organizations were favorable. The results reveal that the perception of software developers in the hybrid work mode is positive to hybrid work practices.

Multiple regression analysis was used to look at how the hybrid work dimensions affect productivity of workers. The overall regression model was found to be statistically significant, with an F value of 50.444 and a p value of < 0.001. Moreover, the coefficient of determination ($R^2 = 0.504$) showed that 50.4% of the changes in the productivity of the employees were explained by the combined effect of the variables used: the ratio of remote work, flexibility, and scheduling. This result aligns with the notion that dimensions of hybrid work have a significant impact on employee productivity.

The result showed flexibility had positive and significant impact on employee productivity ($\beta = 0.603$, $p < 0.001$). The discovery indicates that those software developers with more flexibility in their work arrangements will be more productive. Flexibility allows workers to arrange their work schedule around their personal needs and preferences, which helps to achieve a better work-life balance, boost motivation and enhance job performance. This is in line with earlier research which suggested that flexible working would be related to increased

productivity of employees. Increased autonomy and decreased work-related stress, for instance, are important factors that can be enhanced through flexible work practices and thereby improve the employee outcome, as revealed by (Gajendran & Harrison, 2007). Likewise, (Wang et al., 2021) highlighted the importance of flexibility for employee wellbeing and productivity in remote and hybrid work settings. Thus, the present study is consistent with the previous studies by proving that flexibility is still a major influence in the productivity of software developers in Sri Lanka.

Furthermore, the results showed that scheduling positively affects employee productivity ($\beta = 0.353$, $p < 0.001$). The finding suggests that effective scheduling can help foster better coordination, communication, and task management in hybrid work environments. Collaborating with others and communicating in a timely fashion is often required in software development projects. In this way, the scheduling structures help manage work optimally and help to meet the deadlines of the project. Goal-Setting Theory (Locke & Latham, 2002) provides support for this finding as it claims that having clearly defined goals and goals schedules can lead to improved employee performance. The finding also corroborates existing studies that have emphasized the need for planning and coordination to keep productivity up in hybrid working settings.

The remote work ratio had a strong negative effect on employee productivity ($\beta = -0.898$, $p < 0.001$), in contrast. This discovery is contrary to the hypothesis that increased remote work is beneficial to productivity. While remote working can have advantages like less commuting and more flexibility, too much remote working can result in issues with communication, collaboration, supervision and knowledge sharing. In software development, team members need to communicate and collaborate with each other throughout the project, for problem-solving, innovation, and project coordination. But too much remote work can impede these teamwork processes and, as a result, can lower productivity. This is somewhat in line with Wang et al. (2021), which concluded that communication and coordination issues are key challenges to successful remote working. Additionally, the findings indicate that remote work offers flexibility, but there needs to be a proper balance between working remotely and in the office to ensure employees perform well.

In general, the results suggest that the dimensions of hybrid working have a strong impact on software developer productivity. The flexibility and good scheduling practices have been acknowledged as key enablers of productivity for hybrid work. The negative impact of remote work ratio also points to the need for having a 'balanced hybrid work' structure that leverages remote work while also providing opportunities for in-person collaboration and communication. The findings build on the existing body of literature about hybrid work, and offer practical guidance to organizations looking to create an effective hybrid work policy.

4. Conclusions, Implications, and Limitations

This study was conducted to investigate the effect of the dimensions of hybrid work model on productivity of software developers in medium sized software sector in Colombo. The results show that hybrid work has a significant impact on employee productivity, with flexibility, scheduling showing positive impacts and remote work ratio showing a negative impact.

The findings underscore the benefits of creating a balanced hybrid working model. Balance is key for organizations to give their employees enough flexibility to work in an effective manner, while maintaining structured scheduling systems which facilitate communication and collaboration. There needs to be a careful management of excessive remote working to prevent possible loss of productivity.

The study has a number of practical implications for managers and organizational decision-makers. Organizations need to have a formal hybrid work policy, have good communication practices and use scheduling tools to help coordinate team members. These initiatives can support employees to maximize their productivity with an acceptable level of benefits from hybrid working arrangements.

The study has some limitations, however. The first limitation of the study is that the study was conducted on medium size IT companies in Colombo with software developers employed in those companies only. Second, the study was self-reported and conducted by questionnaires. Third, just three aspects of hybrid working were explored. Other issues that could be explored in future studies include employee engagement, organizational culture, leadership, and technological support.

Finally, the study shows the need for a combination of flexibility, schedule and remote working practice to implement successful hybrid work. Well managed organizations are more likely to include higher levels of employee productivity and organizational performance.

References

- De Souza Santos, R., Grillo, W. D. N., Cabral, D., De Castro, C., Albuquerque, N., & França, C. (2024). Post-pandemic hybrid work in software companies: Findings from an industrial case study. In *Proceedings of the 2024 IEEE/ACM 17th International Conference on Cooperative and Human Aspects of Software Engineering* (pp. 68–78). Association for Computing Machinery. <https://doi.org/10.1145/3641822.3641878>
- Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi.org/10.1037/0021-9010.92.6.1524>
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021). Achieving effective remote working during the COVID-19 pandemic: A work design perspective. *Applied Psychology*, 70(1), 16–59. <https://doi.org/10.1111/apps.12290>

