
International Journal of Management, Finance and Accounting

Impact of Work From Home Factors on Employees Work Engagement

Okoye Shedrach Obumneme^{1,*}, Muhammad Nizam Zainuddin²

*Corresponding author: Okoyeozor1@gmail.com

^{1,2} Faculty of Management, Multimedia University, Selangor, Malaysia

Abstract

The aim of the study is to examine the various work from home related factors which help in bringing about improved employee work engagement based on the work assigned to them. The study employed a quantitative research approach, positivism research philosophy, and case study research design. The study made use of 201 participants, with data collected through questionnaire and online survey tool (Google Form). Participants for the study were sampled from AmIT Global Solutions, AppCable Sdn Bhd, IWG 3.2, Regus Management Malaysia Sdn Bhd, Deventure Sdn Bhd, and Texas Instruments. The three hypotheses proposed in the study were examined using multiple regression analysis. The results show that work from home autonomy, safety, and convenience increase employee engagement levels. The findings implied that work from home when adopted and implemented in an effective manner, increases employee work engagement. The results also aligned with the assumption of Herzberg Two Factor theory which holds on to the impact of work from home autonomy, which is a motivational factor and the impact of work from home safety and convenience, which are hygiene factors. In the absence of both factors, employees are less engaged (disengaged). The study has a limitation of small sample size with quantitative research approach.

Keywords: Work From Home, Engagement, Autonomy, Safety, Convenience

Submitted on 15 December 2023; Accepted on 20 March 2024; Published on 30 August 2024.

1.0 Introduction

The success of any organisation in today's business climate usually depends on its employees who are willing to work and are motivated to engage with the work that has been assigned to them. According to Muller et al. (2018), employees are the most important resource in any organisation, and organisations must focus on adopting processes that aim to improve the overall performance of employees. Organisations must also create processes and ways to help employees carry out their work diligently, increase employee engagement and boost the organisation's overall performance level (Reyhanoglu and Akin, 2019). The crucial nature of work engagement has been studied in many literatures; for instance Muller et al. (2018) argued that the more employees who are engaged with their assigned work, the higher the likelihood of increased organisational performance and the possibility of organisations being able to meet to work goals and overall objectives. George et al. (2021) stated that employee work engagement is crucial to the actual growth of any organisation, and more engaged employees bring about increased productivity. High employee engagement is linked to improved customer satisfaction, which increases customer loyalty and the market share of organisations (Kalokar and Sahu, 2022).

In recent times, the need for organisations to diversify their work schedule and mode of work has become paramount and important. The pandemic increased the need for organisations to have a simplified and more flexible work arrangement, which will help mitigate any form of work infringement. More and more organisations in the international business environment are advocating for adopting a work schedule that will provide employees the best opportunity to carry out their work to the best of their ability. Silver (2023) stated that organisations usually focus on adopting more dynamic processes to provide employees with a certain level of comfort in carrying out their work unhinged. Despite the overall positives associated with the work from home process, understanding if the work from home provides opportunities for employees to be more engaged with their overall work becomes important.

Romero-Martin et al. (2022) argued that organisations were dissatisfied with work engagement due to the covid-19 pandemic, which has reduced their work

performance and productivity. As a result, organisations are developing and implementing newer work models with the aim of increasing the work engagement of their employees and their work output.

Thus, this study aimed to examine the factors embedded in the work from home model that play a central role in increasing the work engagement of employees. The study investigated the various opportunities that work from home provides employees that help maintain their work engagement to a very high level.

2.0 Literature Review and Hypotheses Development

2.1 Work From Home

Work from home (WFH) arrangements are new to many employees, making it one of the concepts because they want to stay in their jobs and do not want to lose their employment or furlough. Even though WFH engagement is relatively new, some groups of employees in many organisations globally have been using the work process, and their work engagement levels have been spot-on in defining the concept of WFH. Graham et al. (2023) defined the concept of work from home as the process by which an employee works from their house, apartment, or residence rather than from their office. The concept of WFH can also be called remote working, which is the practice of working from anywhere other than the office (Graham et al., 2023). Mehta (2021) describes WFH as work being done remotely instead of at an office or organisational work premises.

Aczel et al. (2021) stated that work from home is a situation whereby employees can do their job from any location they find themselves other than the organisational work premises. Silver (2023) stated that it is a dynamic process that allows employees to work from any place, whether in the office or not, full-time, or when it is convenient. WFH was practised previously before the pandemic but organisations have been adopting the process more often since the advent of the pandemic. Since the pandemic, Graham et al. (2023) found out that 40 percent of organisations globally are hybrid economies, meaning that they make use of both formal office hours work schedules where employees either go to the office or WFH. The adoption of WFH and its

effectiveness in the last 10 years is based on the increased levels of technologies that have been created, developed, and adopted by tech organisations. Aktas and Gokturk (2022) posited that the increase in the adoption of WFH is based on the high number of video conferencing technologies which have been created in recent times. Silver (2023) argued that the use of video conferencing technologies has helped in increasing the communication process and collaboration of employees irrespective of where they are working from. Organisations are now adopting a 100 percent utterly remote working experience which provides employees with full-time remote working experience (Karl et al., 2022).

2.1.1 WFH Autonomy

Work and employee autonomy focus on the amount of discretion and decision-making ability a person has in a work situation. Mehta (2021) stated that it focuses on the degree of discretion given to employees when carrying out a job task. Autonomy is the level at which employees are given the freedom to make decisions and the decrease in work supervision of employees based on the assigned work which have been given to them. Mehta (2011) further inferred that employee job autonomy also focuses on the degree of power given to an employee to adopt strategies and methods in assigned work. Many organisations also give employees some level of authority and power to make at-the-spot decisions based on their assigned work (Mehta, 2011). These decisions and the process of making the decisions are carried out with minimal supervision from supervisors and managers, and this happens when employees have the required skills and competencies to make informed and competent decisions. Vyas and Butakhieo (2021) suggested that employees are usually focused on getting little supervision from managers and supervisors. The degree of supervision given to an employee directly depends on how motivated the employee will be towards the assigned work, and the employee's level of performance based on the job assignment. WFH provides increased levels of work autonomy for employees with little supervision.

2.1.2 WFH Safety

Mehta (2021) opined that psychosocial safety refers to the freedom from any form of psychosocial and physical risk. WFH safety is directly related to policies, practices and procedures used to protect employees from harm, mental health stress and bodily issues and harm (Mehta, 2021). One of the biggest motivations that increase employee motivation, engagement, and performance in organisations is the level of safety employees feel based on the work they are doing in their organisation.

Based on WFH safety, Oatman et al. (2020) stated that employees' safety when work from home can be assured due to the various limitations and the stoppage in constant communicating from home to their place of work and coming back. Employees' safety is increased when working from home especially during the pandemic (Oatman et al., 2020). With WFH, employees were less prone to come in contact with the virus and physically safe, but were they mentally safe? Mehta (2021) reported that the decrease in mental health due to depression and lack of the ability to meet people physically affects the physical well-being of employees. Iavicoli et al. (2015) argued that organisations should increase the level of security employees feel based on their work. Work safety directly relates to job security, physical safety measures which organisations employ and adopt to protect employees. Furthermore, work safety can be seen from the level of discrimination employees face in an organisation. Psychosocial safety can be seen from the level of workplace diversity in an organisation, as well as inclusion and gender-based discrimination.

2.1.3 WFH Convenience

Convenience focuses on how comfortable employees are to carry out their work functions and assignments. In many situations, convenience can be related to organisational safety and the type of culture and structure used in an organisation (Sorensen et al., 2021). Mehta (2021) posited that high degree of work convenience provides a good environment for employees to carry out their work functions in the right frame of mind. It is directly related to the organisational working environment and

focuses on the organisational culture and safety. Convenience is also based on the physical structures within the work environment or the psychological environment within the organisation. Some work environments are designed with the aim of bringing increased convenience for employees, and this can be done in different ways, including the air movement and ventilation, presence of adequate lightings, level of open-door policy which is adopted in the organisation. Sorensen et al. (2021) stated that an open-door policy indicates that a supervisor or manager is open to an employee's questions, complaints, suggestions and challenges. Open door policy plays a central role in increasing work convenience because it encourages open communication, feedback and discussion about any concern employees may face.

Aczel (2021) opined that there is an increased level of work convenience when employees work from home because they will be working in an environment where they have total control over and are relaxed. Furthermore, work from home allows employees to work in an environment they are familiar with and in. Employees create the level of convenience they want, especially the convenience associated with employee physical structures, air movement, ventilation, and light distribution at the workplace.

2.2 Employee Engagement

Similar to employee motivation, the concept of employee engagement is an important aspect of any organisation. The need for increased level of engagement is crucial to the ability of employees to carry out their assigned work in an effective manner and also be more creative. According to George et al. (2021), employee engagement is crucial in defining any organisation's productivity levels. When there is a constantly increasing number of employees who are well-engaged in the work assigned to them, there will be an increased level of productivity in the organisation (George et al, 2021).

In defining the concept of employee engagement, Osborne and Hammad (2017) proposed that employee engagement is the extent to which employees are engaged with their assigned work based on their passion towards the assigned work. It focuses on how employees are committed to their jobs and how they feel about their work. Employee

engagement is a human resources concept that describes the level of enthusiasm and dedication a worker feels towards their assigned job (Kalokar and Sahu, 2022). Employee engagement describes the affection and attentiveness employees have towards the work which has been assigned to them.

Employee engagement is an important factor which most organisations are focused on improving because of the position attached to increment in work engagement among employees. Mehta (2021) postulated that employee work engagement increases productivity, performance and the organisation competitive advantage. Kalokar and Sahu (2022) argued that the level at which employees are engaged with their work plays a huge role in their work output. Engaged employees care about their work and about the performance of the organisation that are and feel that their efforts make a difference.

Khusanova et al. (2021) implied that in an organisational setting, employee engagement is as important as any other organisational-based factor because it is linked to employee motivation, work job performance and employee performance. Goswami et al. (2021) further argued that employee engagement is an important yardstick which must be considered when discussing organisational performance. It is a positive factor that is seen in the way employees act or behave towards the work that has been assigned to them. Khusanova et al. (2021) opined that engagement is important based on the organisation's objectives. For organisations to meet their work objectives, employee work engagement must be prioritised in an effective manner. Rana, Pant, and Chopra (2019) posit that engagement is related to the amount of work dedication and zealously employees have and how they absorb the work they have been assigned. Based on work engagement, Rana et al. (2019) opined that engagement is directly linked to three expressions: physical, cognitive, and emotional.

2.3 Theoretical Framework

The study adopted Herzberg's two-factor theory of motivation. Based on the theory, employees are motivated to work based on two broad factors, which include motivators and hygiene factors (Herzberg et al., 1959). Motivating factors are intrinsic factors that

bring about increased work performance, high levels of work engagement, and high motivation of employees to perform. Hygiene factors are non-work related factors that, when absent, bring about dissatisfaction, but when present, they contribute little or nothing to employee satisfaction or engagement levels with work. They are extrinsic factors of motivation.

Olaleke et al. (2017) argued that motivational factors (motivators) are the central motivational element that brings about employee motivation. These factors in their presence increase employee job performance and work engagement, but in their absence, employees will have low levels of engagement. Based on this study, work autonomy is a motivator, and when present, employees are more likely to show increased levels of engagement and performance. Alrawahi et al. (2020) stated hygiene factors as dissatisfiers because they are the primary cause of work dissatisfaction, especially when absent. They are not necessary when it comes to either employee motivation or employment. In this study, work convenience and safety are hygiene factors which are not linked initially to the job given, but when there is less work convenience and employees does not have a sense of safety, employees become less engaged and demotivated which will then lead to low work performance. Other examples of motivators include recognition, achievement, work responsibility and the assigned work (Bevins, 2018), while dissatisfiers include job security, administration and company policy.

2.4 The Impact of Work From Home Factors on Employee Engagement

Rahman and Arif (2020) found out that working from home amidst the pandemic brought so much satisfaction, and work convenience was a prominent factor. WFH convenience is positively associated with increased employee work engagement. WFH provides an environment which they can control and in an environment where they can make decisions as quickly as possible without exposing themselves to work intrusion, noise and other hazards which is seen in a workplace environment. Khusanova et al. (2021) also found that work convenience helps increase work engagement, especially when employees work from home. Employees' engagement level with their assigned work will

increase sporadically when organisations provide an environment where employees can carry out their work assignment conveniently. Mehta (2021) further implied that convenience can bring about some negative repercussions, especially because working from home makes employees likely to become complacent and lazy based on the work given to them.

Mehta (2021) stated that increased work safety associated with increased levels of safety when employees work from home can help boost work engagement. Goswami et al. (2021) argued that there are increased levels of engage safety when they work from home, which has the possibility of boosting employee work engagement. WFH increases employee work engagement due to the increased levels of work safety which the employee will see. Mehta (2021) postulated that with increased work autonomy when employees work from home, they become more engaged with the work assigned to them. Johnson and Zak (2020) insisted that with the employment of WFH policies which many organisations use, employees have been given increasing autonomy and trust from supervisors to carry out their assigned job and be thoroughly engaged with the work given to them. The result of the study by Johannsen and Zak (2020) showed that there is an increasing level of positive relationship with work autonomy and employee work engagement. Sridevi and Sanjama (2021) also found that employee engagement is crucial to optimal organisational performance and that environmental factors are crucial to the increase in employee engagement. Aczel et al. (2021) insisted that WFH affects the work engagement levels of employees based on the increased distractions and the inability to create a work office which will help employees carry out their work assignment.

2.5 Conceptual Framework

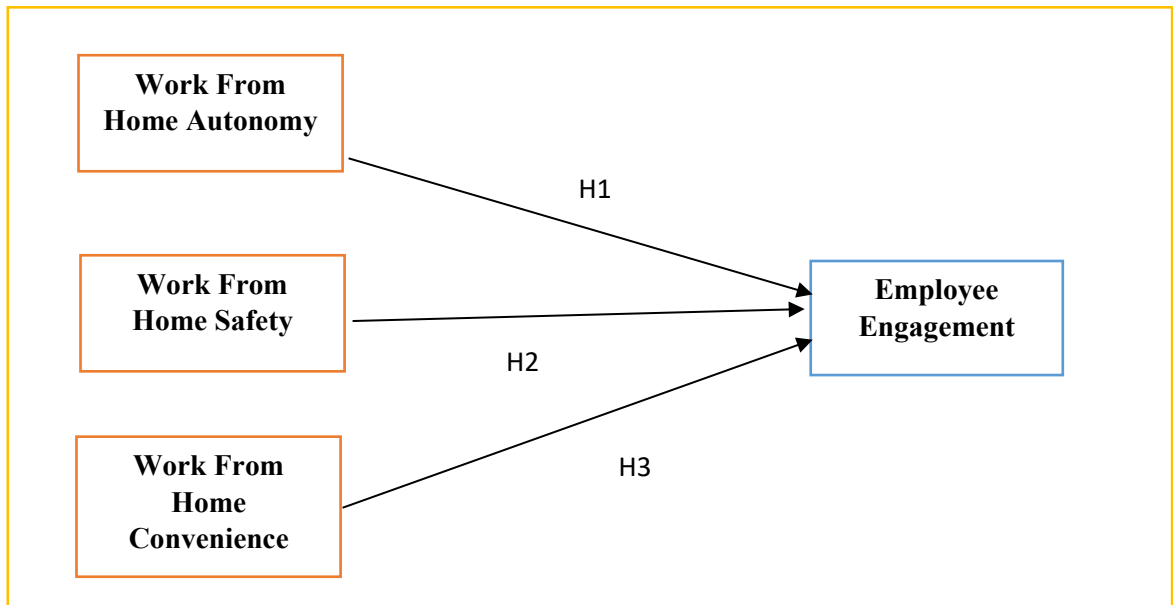


Figure 1: Conceptual Framework

Figure 1 shows the relationships between the variables and the following hypotheses were tested in this study:

H1: There is a positive significant relationship between work from home autonomy and employee engagement

H2: There is a positive significant relationship between work from home safety and employee management.

H3: There is a positive significant relationship between work from home convenience and employee management.

3.0 Research Methodology

The study adopted a quantitative research design. Based on the objectives of this study, the quantitative research design which was adopted in this study is a descriptive research design. This research design focuses on answering research questions that start with

"what, how, and where" and are used to study a phenomenon, population, and behavioural antecedent. The design was adopted based on the study population, and the research objective focused on work from home and the effect of work from home variables on employee engagement. The study made use of employees in Cyberjaya. Based on the overall population, Cyberjaya is made up of 102,000 people as of 2021 (Statista, 2023). The sample size of this study is 204 technology employees working from home. The study was carried out at firm level

The study used a structured questionnaire for data collection, which was based on the independent variables and the dependent variable. The constructs forming the survey instruments were derived from established measurement scales:

- i. The construct of Work from home Autonomy was adapted from physician job satisfaction scale
- ii. Work from home convenience was adapted from facilitating conditions construct of the modified unified theory of acceptance and use of technology (UTAUT2)
- iii. Work from home psychosocial safety was adapted from the second version of the Copenhagen Psychosocial Questionnaire II. The Copenhagen Psychosocial Questionnaire II (COPSOQ II)
- iv. WFH work engagement was adapted from the Utrecht Work Engagement Scale

The questionnaire made use of a variety of scales. For example, the Utrecht Work Engagement Scale used 17 points Likert scale, while other scales used 5 points Likert scale. Utrecht Work Engagement scale is made up of 17 points and The Copenhagen Psychosocial Questionnaire II (COPSOQ II) is made up of 23 points, unified theory of acceptance and use of technology (UTAUT2) is made up of 20 points.

To test the hypotheses, this study made use of multiple regression analysis. The analysis was employed to check the level of significant relationships between the dependent and independent variables of the study. Three hypotheses were proposed in this study. The study adopted multiple regression because the major objective of the

study is to find a cost-and-effect relationship, and multiple regression analysis is suitable for that.

4.0 Analysis and Findings

The analysis of the data collected was based on the adopted and justified methods, which were seen in the previous chapter (research methodology). It should be noted that the study made use of SPSS version 24 to carry out the data analysis. The data collected were collated with Google forms and extracted to an Excel Spreadsheet before being transferred to the data analysis tool used in the study. Firstly, the analysis of the demographic characteristics of participants was carried out, followed by the analysis of the questionnaire, the reliability test of the scales adopted in the study, the test of research hypotheses and then, the discussion of major findings of the study by taking into consideration previous studies which have been carried out and making detailed comparison of results. The study has a total of 204 participants.

Table 1: Frequency distribution of Age

	Distribution by numbers	Distribution by frequency
Age		
18 – 24 years	15	7.5
25 – 31	42	20.5
32 – 38	78	37.5
39 – 45	51	25.5
46 and above	18	9.0
Gender		
Male	124	61.5
Female	78	37.5
Prefer not to say	2	1.0
Academic qualification		
GCSE/A level	19	9.5
BSC/BA	84	41.8
MSC/BA	73	34.8
PhD	28	13.9

In Table 1 above, the distribution of participants based on their respective ages was carried out and based on the information above, 37.5% of participants were in the 32 – 38 age range and it accounted for the highest group of participants followed by 39 – 45 range which accounted for 25.5%. The lowest age range was 18 – 24, which accounted for 7.5% of the participants. The table provided the distribution of participants based on gender. The table shows that 61.5% of participants are male while 37.5% are female, and 1% of the population prefers not to say their genders. The table also showed that 41.8% of participants have BSC/BA, accounting for the highest group of participants, followed by MSC/MBA, which accounted for 34.8%. Respondents with PhD accounted for 13.9%, and GCSE/A Level accounted for 9.5%.

Table 2: Multiple Regression Analysis

Model		Unstandardised coefficient		Standardised coefficient	T	Sig	90% confidence interval for B	
		B	Std Error	Beta			Lower bound	Upper bound
1	Constant	2.324	0.441		4.129	0.001	0.312	4.312
	WFH autonomy	0.381	0.203	0.145	2.901	0.002	1.214	4.503
	WFH safety	0.325	0.244	0.105	2.451	0.003	1.314	4.777
	WFH convenience	0.218	0.189	0.047	1.871	0.001	1.219	4.419

Table 2 shows the hypothesis test for the three hypotheses. It showed that WFH autonomy has a positive and significant impact on employee engagement with a B-value of 0.381 and a P-value of 0.002 (≤ 0.05). Based on the data above, the hypothesis 1 was accepted, and WFH autonomy helps increase the work engagement of employees based on the work assigned to them. The results provides the hypothesis test for hypothesis 2. It showed that WFH safety has a positive and significant impact on employee engagement with a B-value of 0.325 and a P-value of 0.003 (≤ 0.05). Thus, hypothesis 2 was accepted and WFH safety helps increase employees' work engagement based on work assigned to them. The results also showed that WFH convenience has a positive

and significant impact on employee engagement with a B-value of 0.218 and a P-value of 0.001 (≤ 0.05). Thus, hypothesis 3 was accepted and WFH convenience helps in increasing the work engagement of employees based on work assigned to them.

5.0 Discussion

The results of the hypotheses test are as follows:

Table 3: Result of the hypotheses test

Hypotheses	Findings
H1: There is a positive significant relationship between work from home autonomy and employee engagement	Accepted
H2: There is a positive significant relationship between work from home safety and employee management	Accepted
H3: There is a positive significant relationship between work from home convenience and employee management	Accepted

The results show that the WFH autonomy, safety, and convenience increase the employee engagement levels. Based on the research findings, it is succinct to say that the result is in line with results that were seen in previous studies that have been carried out previously.

Rahman and Arif (2020) found out that working from home amidst the pandemic brought so much satisfaction, and work convenience was a prominent factor. The authors suggested that WFH convenience is positively associated with increased employee work engagement. The authors further implied that WFH provides an environment which they can control and in an environment where they can make decisions as quickly as possible without exposing themselves to work intrusion, noise and other hazards which is seen in a workplace environment.

Khusanova et al. (2021) also found that work convenience helps increase work engagement, especially when employees work from home. Employees' engagement level

with their assigned work will increase sporadically when organisations provide an environment where employees can carry out their work assignments conveniently.

The result, which was provided by Mehta (2021), revealed certain loopholes in working from home where convenience will bring about some negative repercussion especially due to the fact that working from home gives employees the likelihood to become complacent and lazy based on the work given to them. Mehta (2021) also found that there is increased work safety in most situations when employees WFH, and safety can help boost work engagement. Goswami et al. (2021) stated that there are increased levels of engaged safety when they work from home, which can boost employee work engagement. WFH increases employee work engagement due to the increased levels of work safety which the employee will see.

Mehta (2021) stated that with increased work autonomy, when employees work from home, they become more engaged with their work. Johannsenson and Zak (2020) stated that with the employment of WFH policies which many organisations use, employees have been given increasing autonomy and trust from supervisors to carry out their assigned job and be thoroughly engaged with the work given to them. The result of the study by Johannsen and Zak (2020) showed an increasing level of positive relationship between work autonomy and employee work engagement.

Sridevi and Sanjama (2021) also found that employee engagement is crucial to optimal organisational performance and that environmental factors are crucial to the increase in employee engagement. The past study also argued that organisations' adoption of WFH as a means of working plays a central role in increasing employee engagement (Sridevi & Sanjama, 2021). Aczel et al. (2021) insisted that WFH affects the work engagement levels of employees based on the increased level of distractions and the inability to create a work office that will help employees carry out their work assignments.

6.0 Implication of Findings

6.1 Practical Implications

Based on the study's outcome, organisations must consider the positives associated with WFH. The result indicated that WFH increases the sense of psychosocial security, employee work convenience, and work autonomy, especially in terms of employees' freedom to make informed decisions with thorough supervision. Several studies have indicated that with little supervision and increase in employees making decisions by themselves based on the level of skills and their overall competencies, employees will perform their work better, resulting in increased work engagement. WFH provides an avenue for employees to work with little or no supervision and also gives employees the authority to make decisions with consultations, which will end up increasing time wastage. From the managerial point of view, organisations must be able to incorporate WFH as a type of working for employees. To increase the effectiveness of the work model, organisations must be able to integrate processes which will help monitor the work schedules of employees and also make use of work from home with employees that have a high level of discipline, as the adoption of WFH can lead to inadequacies in work assigned.

6.2 Theoretical Implications

This study was hinged on the adoption of Herzberg Two Factor Theory. Based on the theory, employees are motivated to work based on two broad factors: motivators and hygiene. Motivating factors are intrinsic factors which increase work performance, work engagement and motivation of employees to perform. Hygiene factors are non-work related factors which, when absent, bring about dissatisfaction but when present, they contribute little or nothing to employee satisfaction or engagement levels with work. They are extrinsic factors of motivation. Based on the research findings, work autonomy is a motivator that, when present, makes employees more likely to show increased engagement and performance. Also, work convenience and safety are hygiene factors which are not linked initially to the job given, but when there is less work convenience and employees do not have a sense of safety, employees become less engaged and demotivated, and these can lead to low work performance. The results of the study

provided more details and increased the reliability of Herzberg Two Factor Theory as a management and motivational theory.

7.0 Conclusion

This study aimed to examine the factors embedded in the work-from-home model that play a central role in increasing the work engagement of employees. The study investigated the various opportunities that work from home provides for employees that helps maintain their work engagement to a very high level. The aim of the study is based on the level of work disengagement and lack of work motivation which have been noticed among employees since the onset of the pandemic. The study found out that WFH, which was advanced due to the Covid-19 pandemic, played a central role in increasing employees' work engagement. This is based on the many positives associated with working from home, including work safety, work autonomy, and work convenience. WFH comes with some issues, especially for employees who are not resolute and disciplined. However, when WFH is adopted in the right manner, it increases employees' overall engagement and performance levels. In brief, the results of this study show that WFH autonomy, safety and convenience increase the employee engagement levels.

The study has limitations, which include: (i) sample size, a large sample size is needed for the results to be adequately generalised; (ii) research approach, the research approach hinged on the adoption of quantitative research design; and (iii) data collection method in which this study's data collection only used online surveys, which has limitations such as the inability to monitor the data collection process.

Based on the research findings and research limitations, it is recommended that organisations incorporate the adoption of WFH as a viable mode for organisational operations. Furthermore, the adoption of high-level monitoring and schedules must also be incorporated to increase the effectiveness of WFH work model. Organisations must be able to create detailed processes which increase the percentage of employees to WFH. These processes must help improve adequate employee supervision as they work from home, increase the level of communication between employees working from home, and

provide effective internet connectivity for employees to increase the effectiveness of working from home. Managers and management of organisations must invest in adopting video conferencing technologies such as Microsoft Teams, Zoom, and Skype. Adopting and investing in these technologies will increase the efficiency and effectiveness of employee communication since they WFH. Managers must not forget to limit the level of hovering and increase employee autonomy, especially in decision-making and problem-solving. For future studies, researchers can incorporate the use of mixed methods research approach, which is the adoption of qualitative and quantitative research approaches in one study. This will improve the data collection processes, and the qualitative aspect of the study will allow researchers to collect detailed data.

Author Contributions Statement: The authors worked collaboratively for this paper. Conceptualization: O.S.O; Methodology: O.S.O; Formal analysis and investigation: O.S.O; Writing - original draft preparation: O.S.O; Writing - review and editing: O.S.O; Resources: O.S.O; Supervision: M.N.Z. All authors have read and agreed to the published version of the manuscript.

Funding Statement: No funding was received to assist with the preparation of this manuscript.

Informed Consent Statement: Informed consent was obtained from all individual participants included in this study.

Data Availability Statement: The data are available from the corresponding author upon request.

Acknowledgement: The authors would like to thank Multimedia University and the respondents who have participated in this study. Deep appreciation goes to the editors and reviewers of the International Journal of Management, Finance, and Accounting, whose constructive feedback and insightful comments significantly enhanced the clarity of the work.

Conflict of Interest Statement: The authors have no competing interests to declare that are relevant to the content of this study.

References

- Abiddin NZ, Ibrahim I and Abdul Aziz SA (2022). A Literature Review of Work From Home Phenomenon During COVID-19 Toward Employees' Performance and Quality of Life in Malaysia and Indonesia. *Frontiers in Psychology*, 13(8), 1 – 12
- AbuJarour, S ., Ajjan, H ., Fedorowicz, J ., and Owens, D (2021). How Working from Home during COVID-19 Affects Academic Productivity. *Communications of the Association for Information Systems*, 48(8), 55 – 64
- Aczel, B ., Kovacs, M ., Van Der Lippe, T and Szaszi, B (2021). Researchers working from home: Benefits and challenges. *PLoS ONE* 16(3), 1 – 13
- Ajibola, K.S ., Mukulu, E and Simiyu, A (2019). Performance Appraisal and Employee Engagement: Does Tenure Matter? Evidence from South-West Nigeria. *Quest Journal of Management and Social Sciences*, 1(2):146-164
- Aktaş, M and Göktürk, Ö (2022). Performance scale development study for science-chemical laboratory applications. *Online Science Education Journal*, 7(2), 72-84.
- Alipour, J.V ., Fadinger, H and Schymik, J (2021). My home is my castle – The benefits of working from home during a pandemic crisis. *Journal of Public Economics*, 196, 10 – 23
- Alrawahi S, Sellgren SF, Altouby S, Alwahaibi N and Brommels M (2020). The application of Herzberg's two-factor theory of motivation to job satisfaction in clinical laboratories in Omani hospitals. *Heliyon*, 6(9), 1 – 23
- Amoadu, M ., Ansah, E.W and Sarfo, J.O (2023). Influence of psychosocial safety climate on occupational health and safety: a scoping review. *BMC Public Health* 23, 13 - 44
- Anakpo, G.; Nqwayibana, Z.; Mishi, S (2023). The Impact of Work-from-Home on Employee Performance and Productivity: A Systematic Review. *Sustainability*, 15, 20 – 30

- Apuke (2017). Quantitative research methods a synopsis approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 6(1), 40 – 55
- Bevins, D.T (2018). Herzberg's Two Factor Theory of Motivation: A Generational Study. *Honors Theses*. 530.
https://encompass.eku.edu/honors_theses/530
- Budriene, D and Diskiene, D (2020). Employee engagement: types, levels and relationship with practice of HRM. *Malaysian E Commerce Journal*, 4(2), 42-47
- Etikan, I (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1):1 – 16
- Gallup (2020). Worldwide, 13% of Employees Are Engaged at Work. Available at:
<https://news.gallup.com/poll/165269/worldwide-employees-engaged-work.aspx>
- George, S.S ., Suppramaniam, S and Arumugam, T (2021). The impact of employee engagement and work culture on the productivity of employees in the it industry in India. *Electronic Journal of Business and Management*, 6(4). 78-95
- Goswami, A ., Jacob, E and Subha, K (2021). Impact of work from home on employees' engagement in the Indian it sector. *UGC Care Journal*, 14 (1), 32 – 45
- Green, N ., Tappin, G and Bentley, T (2020). Working from home before, during and after the Covid-19 pandemic: implications for workers and organisations. *New Zealand Journal of Employment Relations*, 45(2): 5-16
- Graham, M ., Lambert, K.A ., Weale, V ., Stuckey, R and Oakman, J (2023). Working from home during the COVID 19 pandemic: a longitudinal examination of employees' sense of community and social support and impacts on self-rated health. *BMC Public Health*, 23:11, 1 – 10
- Herzberg, F., Mausner, B. and Snyderman, B. (1959) *The Motivation to Work*. 2nd Edition, John Wiley & Sons Inc., New York, 20, 141-147.

- Iavicoli, S ., Cesana, G ., Dollard, M ., Leka, S and Sauter, S.L (2015). Psychosocial Factors and Workers' Health and Safety. *BioMed Research International*, 3(1), 1 – 3
- Job Street (2023). 67% of Malaysian Companies Required Staff to Work from Home. Available at: <https://www.jobstreet.com.my/en/cms/employer/laws-of-attraction/inspirations/67-of-malaysian-companies-required-staff-to-work-from-home/>
- Johannsen, R and Zak, P. J (2020). Autonomy Raises Productivity: An Experiment Measuring Neurophysiology. *Frontiers of Psychology*, 11(963), 1 – 8
- Kalokar, S.A and Sahu, A (2022). Employee engagement: a review paper. *International Journal of Creative Research Thoughts*, 10 (2), 372 – 382
- Kang, H and Zhao, H (2020). Description and Application Research of Multiple Regression Model Optimisation Algorithm Based on Data Set Denoising. *Journal of Physics: Conference Series*, 1631; 1 – 8
- Karl, K.A ., Peluchette, J.V and Aghakhani, N (2022). Virtual Work Meetings During the COVID-19 Pandemic: The Good, Bad, and Ugly. *Small Group Research*, 53 (3), 343-353
- Khusanova, R ., Kang, S. W and Choi S. B (2021). Work Engagement Among Public Employees: Antecedents and Consequences. *Frontiers of Psychology*, 12:684495; 1 – 15
- Mehta, P (2021). Work from home; Work engagement amid COVID-19 lockdown and employee happiness. *Journal of Public Affairs*, 2; 1 – 12
- Mounika, C (2020). A study on employee engagement. *Journal of Emerging Technologies and Innovative Research*, 7 (8), 100 – 105
- Muller, R ., Smith, E and Lillah, R (2018). The impact of employee engagement on organisational performance: a balanced scorecard approach. *International journal of economics and finance studies*, 10(2), 22 – 39

- Nagesh, P ., Kulenur, S and Shetty, P (2019). The Study on Factors Affecting Employee Engagement. *International Journal of Engineering Research & Technology*, 8 (6), 426 – 436
- Niebuhr, F.; Borle, P.; Börner-Zobel, F.; Voelter-Mahlknecht, S (2022). Healthy and Happy Working from Home? Effects of Working from Home on Employee Health and Job Satisfaction. *International Journal of Environmental Research in Public Health*, 19, 11 - 22
- Oakman, J ., Kinsman, N ., Stuckey, R ., Graham, M and Weale, V (2020). A rapid review of mental and physical health effects of working at home: how do we optimise health? *BMC Public Health*, 20(1825), 1 – 13
- Osbourne, S and Hammod, S.M (2017). Effective Employee Engagement in the Workplace. *International Journal of Applied Management and Technology*, 16(1), 50–67
- Rahman, K, T and Arif, Z, U (2020), Working from Home during the COVID-19 Pandemic: Satisfaction, Challenges, and Productivity of Employees. *International Journal of Trade and Commerce*, 9(2), 282-294
- Rana, S and Chopra,P (2019). Work engagement and individual work performance: research findings and an agenda for employee relationships. *Journal of Emerging Technologies and Innovative Research*, 6(5), 17 – 23
- Reyhanoglu, M and Akin, O (2020). The Effect of Workplace Conditions on Employee Job Performance. *Ege academic review*, 56 (1), 57 – 78
- Romero-Martín, M ., Gómez-Salgado, J ., Alcaide-Carrasco, M ., Rodríguez-Jiménez, L ., Ortega-Moreno, M ., López-López, D and Ruiz-Frutos, C (2022). Impact of the COVID-19 Pandemic on the Work Engagement of UK Active Employees. *Healthcare*, 10(7), 1226 – 1234
- Roussos, P.L (2023). The Psychosocial Risks and Impacts in the Workplace Assessment Tool: Construction and Psychometric Evaluation. *Behavioral science (Basel)*, 13(2),104 – 124

- Saunders, M.N.K., Lewis, P. and Thornhill, A. (2019) *Research Methods for Business Students*. 8th Edition, Pearson, New York.
- Sorensen, G ., Dennerlein, J.T ., Peters, S.E ., Erika, L ., Erin, L. B .. and Kelly, G, R.W (2021). The future of research on work, safety, health and well-being: A guiding conceptual framework. *Social Science & Medicine*, 269, 1- 9
- Silver, H (2021). Working from home: before and after the pandemic. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9988592/pdf/10.1177_15365042221142839.pdf
- Sridevi, S and Sanjama, R (2021). A study on the impacts of work from home among it employees during covid-19 in Coimbatore district. *Utkal Historical Research Journal*, 34(10), 172 – 182
- Statista (2023). Number of population in Malaysia as of July 2023, by state. Available at: <https://www.statista.com/statistics/1040670/malaysia-population-distribution-by-state/>
- Taber, K. T. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48, 1273-1296.
<https://doi.org/10.1007/s11165-016-9602-2>
- Uyanik, G.K. and Güler, N. (2013) A Study on Multiple Linear Regression Analysis. *Procedia—Social and Behavioral Sciences*, 106, 234-240.
- Vyas, L and Butakhieo, N (2021). The impact of working from home during COVID-19 on work and life domains: an exploratory study on Hong Kong. *Policy Design and Practice*, 4(1), 59-76
- Yawalkar, V.V (2020). A Study of Work Autonomy and Its Impact on Efficiency at the workplace; with reference to employees working in Pune City. *International Journal of Research, Science, Technology & Management*, 13(1), 6 – 12

Zoe (2023). Employee engagement statistics [2023 best updates]. Available at:
<https://zoetalentsolutions.com/employee-engagement-statistics/>