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Research Article

Relationship between WFH and Employee Productivity: Mediating Role of Work Motivation and Employee Engagement

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ABSTRACT

This research work examines the association between work-from-home (WFH) and employee productivity (EP), with consideration of mediating roles of work motivation (WM) and employee engagement (EE). A survey has been conducted by procuring primary data from respondents (n = 265) working in IT industryin various industries. Quantitative research design is basis for the research methodology where exploratory factor analysis has been conducted initially followed by mediation and moderation analysis. The predictor variable is WFH and dependent variable is employee productivity with mediators as work motivation and employee engagement. The findings of this study conveyed that while WFH positively impacts employee productivity directly, its effects are influenced by mediating mechanisms of work motivation and employee engagement. Precisely, work motivation was found as complementary mediator, augmenting the positive effect of WFH on productivity, while employee engagement was identified competitive mediator, potentially reducing its impact. These findings propose valuable insights for organizations looking improving employee productivity in remote work settings thus highlighting the importance of nurturing both intrinsic motivation and engagement among remote employees.

Keywords: Work-from-home, WFH, work motivation, employee engagement, employee productivity, remote work.

Introduction

The quick progression of remote work practices has provoked organizations worldwide to reconsider traditional methods to workforce management. The advancements in technology and shifting employee expectations, the acceptance of work-from-home arrangements has turn out to be increasingly ubiquitous. While work-from-home (WFH) propositions potential benefits such as increased flexibility and condensed commuting time, its influence on employee productivity remains a topic of deliberation. Hence, this research work with a purpose to discover the association between work-from-home (WFH) and employee productivity (EP) with consideration of mediating roles of work motivation (WM) and employee engagement (EE). By examining how these psychological factors affect the connection between remote work and performance, this investigation seeks to offer valuable insights for organizations looking to enhance employee productivity in work-from-home settings and adjust to the progressing landscape of employment modes. In IT industry the contemporary work modes are work-from-home, regularly from office and hybrid work (ET Now Digital, 2022; Moglia et al., 2021). Each organization in IT industry implements work mode based on diverse factors such as client requirements, employee preference and management preferences.

The affiliation between work-from-home (WFH) settings and employee outcomes has become important concern with rapid growth of technology supporting WFH mode. In recent years, the researchers have increased their concentration in the domain of WFH culture (Haridas et al., 2021; Patanjali & Bhatta, 2022).

However, understanding this relationship needs taking into account various factors that can influence employee productivity in remote work environment which is presently referred as WFH in this study. From one side, proponents of WFH argue that remote work leads to numerous benefits that can positively impact both employee productivity and organizational productivity. For example, through eliminating necessitate for daily commuting, WFH can save employees valuable time and reduce stress thereby supporting them to assign more time and energy to their work tasks. The flexibility innate in remote work arrangements can facilitate employees to enhanced balance their work and personal responsibilities thus potentially increasing job satisfaction and motivation which in turn can enhance employee productivity. The progress and development in technology have made it comfortable for remote workers to collaborate, communicate, and access resources, facilitating flawless workflow and task completion.

From the other side, there are some challenges linked with remote work that can affect productivity. For instance, remote work may lead to feelings of social isolation and disconnection from colleagues and organizational culture, which could affect communication, collaboration, and team cohesion. The distractions at home, such as household tasks, family commitments, and environmental factors, can hinder concentration and focus, potentially dipping productivity levels. Additionally, the absence of supervision and accountability in WFH settings may result in procrastination and condensed work engagement among some employees.

The relationship between WFH and employee productivity is inclined by a complex interplay of variables comprising individual differences, job aspects, organizational customs, and technological support (Caulfield, 2015; Lange & Kayser, 2022). While remote work gives opportunities for increased job flexibility and job autonomy, it also creates challenges that must be dealt to maximize productivity and ensure the success of WFH. Organizations must cautiously consider these factors and execute strategies to support and empower employees working from home while mitigating potential barriers to productivity in order to comprehend the full benefits of WFH.

Research Questions

1. How does the implementation of work-from-home (WFH) affect employee productivity, and what factors contribute to variations in employee productivity among remote workers?
2. What are the mechanisms by which work motivation facilitates the relationship between WFH and employee productivity?

Research Objectives

1. To study the impact of work-from-home (WFH) on employee productivity.
2. To analyze the mediating role of work motivation on relationship between WFH and employee productivity.
3. To analyze the mediating role of employee engagement on relationship between WFH and employee productivity.
4. To know the moderating effect of Gender on the relationship between work-from-home and employee productivity.

Need and Importance

This research work considers the acute need in contemporary organizational management by inspecting the convolutedinteraction between work-from-home, work motivation, engagement, and employee efficiency. With the aggregate prevalence of remote work by understanding the fundamental mechanisms that form employee performance in this context is indispensable for organizations striving to preserve competitiveness and adaptability in contemporary dynamic business environment. By uncovering the mediating roles of work motivation and employee engagement, this research offers actionable insights for organizational leaders to effectually leverage remote work practices while augmenting employee productivity. Eventually, the outcomes from this research work subsidize to the progression of knowledge in remote work management and offer realistic direction for organizations routing the convolutions of contemporary work arrangements.

Literature Review

The firm performance is associated with indicators related to remote work in information technology (IT) industry (Raj et al., 2023). Work-from-home (WFH) has supported the society during the recent pandemic but there is need to know about the impact of WFH on employee productivity (Anakpo et al., 2023). Initially organizations have forced employee to work from home, from the other side the employee productivity has significantly improved in IT sector (Haridas et al., 2021). Despite of benefits with WFH there is negative association between employee productivity and remote working mode (Farooq & Sultana, 2022). Work-life balance (WLB) performed a mediating role on the link between WFH and employee productivity (Prasetyaningtyas et al., 2021). There are short term benefits with WFH during pandemic like employee

health and well-being and long-term benefits for the organizations like real estate cost savings with work-from-home (Faulds & Raju, 2021). On an average out of every five jobs, there is one job perfectly suitable for WFH setting but in low income countries only one out of 26 jobs can be suitable for WFH model(Garrote Sanchez et al., 2021).

Socioeconomic status and accessibility towards WFH is associated with place of residence (Paul, 2022). According to work-from-home is considered as best solution for reducing the movement of people thereby avoiding congestion and it helps in reducing real estate costs in the long-standing (Rachmawati et al., 2021). The job satisfaction of employee in work-from-home mode is influenced by work stress and work-life balance (Irawanto et al., 2021). Job motivation, work environment along with job satisfaction influences employee performance in WFH mode (Susilo, 2020). Job motivation has been considered as mediator while measuring the link between work-from-home and employee productivity (Gultom & Wanasida, 2018). Work motivation and training activities have an influence on employee outcomes (Dysvik & Kuvaas, 2008). Work motivation is related with work performance and organizational commitment (Kuvaas, 2006).

The new culture of WFH has been able to differentiate good jobs from the regular jobs and it is influenced by individual characteristics (Kramer & Kramer, 2020). Pandemic COVID-19 has created new normal where public sector employees are showing concern for work-from-home culture (Williamson et al., 2020). In viewpoint of Neufeld and Fang, (2005) thee attitude and behavior of employees in WFH environment are influenced by social interactions such as family members, colleagues and managers. Employee outcome such as employee burnout is associated with employee engagement at workplace (Visco & Sen, 2001). Employee in IT industry have believed that they are able save time and improve productivity in WFH mode because of time saved from commuting (Haridas et al., 2021).

Conservation of resources (COR) theory had proved to best intended for measuring the benefits and costs with work-from mode (Doberstein & Charbonneau, 2022). Job Demands-Resources (JDR) theory has been widely adopted to learn about the distractions and employee outcomes in remote work settings (Prodanova & Kocarev, 2021). Social Capital theory has been applied to study the relationship between technical knowledge sharing and ingenious performance in work from home settings. According Darouei and Pluut (2021) based on the application of resource (drain) viewpoint in work-family spillover presumption, it is found that staff are able to face less conflicts with family and less time pressure in work-from-home setting.

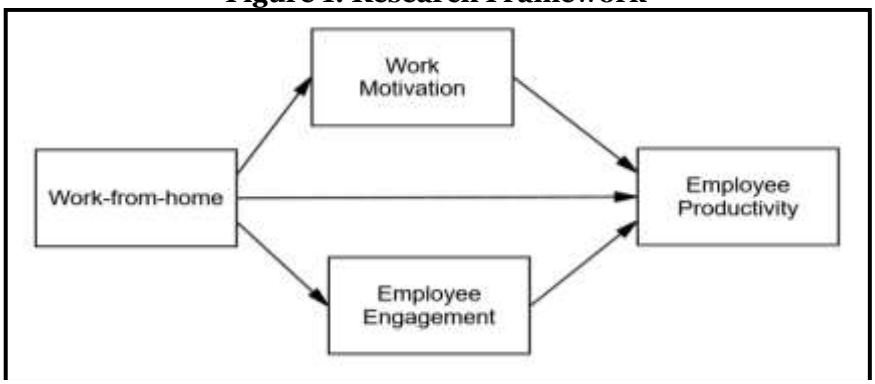
Research Methodology

This research implemented quantitative research design by collecting primary data from respondents (n =265) belonging to information technology (IT) industry. Secondary data has been procured from reputed sources such as academic journals and books. Initially data cleaning has been implemented and it is observed there are no missing value. A web based investigation was executed to collect data from the respondents who are selected based on purposive sampling. The respondents belong to IT industry in Hyderabad who are working at various positions across the IT organizations. A research model (Figure 1) has been developed based on the inputs from existing literature where work-from-home is predictor and employee productivity is dependent variable. The variables work motivation and employee engagement have been used as mediators in the research framework. The sources of items for the four constructs and reliability of each construct has been presented (Table 1). All the items have perfectly loaded on their respective constructs as per bench mark value of above 0.70 (Hair et al., 2019). The results for factor analysis and measures of sampling adequacy have been presented (Table 2).

Statistical tools encompassing frequency analysis, charts, descriptive statistics, mediation analysis and moderation analysis have been implemented. After conducting EFA, the hypothesis formulated have been tested and results are described. Software applied during data analysis in this study comprises MS-Excel, SPSS and SPSS PROCESS Macros have been utilized. For mediation analysis was done with Model 4 and moderation investigation was done with Model 1 have been used (Hayes, 2013). Based on the results from data analysis precisely mediation and moderation analysis interpretations are made and they have been further used for discussion and conclusion. Moderation analysis and mediation analysis has been conducted as per the standards (Hayes, 2017, 2022).

A research model (Figure 1) has been created using the framework in earlier research works. Many studies have used the models with work motivation as predictor variables and some studies have used employee engagement with employee productivity as the dependent variable. In this era of technology, where people can work from home more precisely in information technology sector has potential for work-from-home. Therefore, the below model has been generated with consideration of existing literature and consultations with experts in the area of human resource management.

Figure 1: Research Framework



(Source: Created by researcher)

Table 1: Measurement Scale Items

Construct	Items	Source	Cronbach's Alpha
WFH	"I spend all of my time at Home during my work"	Neufeld and Fang, (2005)	0.98
	"I use internet technology to do my work as much as possible"		
	"I work outside the physical presence of my colleagues."		
Work Motivation (WM)	"The tasks that I do at work are enjoyable"	Dysvik and Kuvaas, (2008)	0.96
	"My job is very exciting"		
	"I really think that my job is meaningful"		
Employee Engagement (EE)	"When I get up in the morning, I like to start the work"	(Schaufeli et al., 2001, 2006)	0.96
	"My job inspires me"		
	"When I am working, I forget everything else around me"		
Employee Productivity (EP)	"I am productive while working from home"	(Susilo, 2020)	0.88
	"Work from home motivates me to work better"		
	"I have clear work when working from home"		

Source: Compiled by researcher

From the above analysis (Table 2), Cronbach's alpha values designate high internal consistency reliability for each of the construct namely Work-from-Home (WFH), Work Motivation (WM), Employee Engagement (EE), and Employee Productivity (EP) havealpha value of 0.98, 0.96, 0.96, and 0.88, respectively which are above benchmark value 0.70. Cronbach's alpha values advocate that the items within each construct are thoroughly related and measure the intended fundamental constructs consistently. With regard to items in measurement scale for the construct of WFH, the items include "I spend all of my time at home during my work," "I use internet technology to do my work as much as possible," and "I work outside the physical presence of my colleagues." These items jointly measure the degree to which individuals work from home.
Work Motivation (WM) is gauged through items such as "The tasks that I do at work are enjoyable," "My job is very exciting," and "I really think that my job is meaningful." These items aim to estimate the level of intrinsic motivation of individuals derive from their work tasks.Next construct Employee Engagement (EE) is measured by items like "When I get up in the morning, I like to start the work," "My job inspires me," and "When I am working, I forget everything else around me." These items measure the notchof respondents and hoe theyemotionally invest and absorb their work.
Finally, Employee Productivity (EP) is assessed through items such as "I am productive while working from home," "Work from home motivates me to work better," and "I have clear work when working from home." These three items gauge the perceived effectiveness and efficiency of individuals while working from home.High Cronbach's alpha values and carefully selected items designate the robustness and reliability of the constructs under investigation, supporting the rationality of ensuing data analysis and interpretation regarding the relationship between WFH, work motivation (WM), employee engagement (EE), and employee productivity (EP).

Exploratory Factor Analysis

The exploratory factor analysis (EFA) was conducted through SPSS software and results deliver comprehensions into the fundamental aspect arrangement of the observed variables, definitely pertaining to work-from-home (WFH), employee engagement (EE), work motivation (WM), and employee performance

(EP). EFA applied the Principal Component Analysis extraction technique with Varimax rotation along with another test Kaiser normalization. The factor loadings score in the EFA signpost the degree of association between each item and the mined components.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure for Sampling Adequacy.	0.773	
Bartlett's Test of Sphericity	Chi-Square	4461.22
	Degrees of freedom	66
	p-value.	0.00

Source: SPSS Output

The Kaiser-Meyer-Olkin (KMO) is widely implemented to compute of sampling adequacy evaluates the appropriateness of dataset for factor analysis. As per the benchmark values, the KMO value near to 1.0 designates that dataset are more suitable for factor analysis (Aldrich & Cunningham, 2016; Hair et al., 2019). From the KMO and Bartlett's test results (Table 2), the KMO valued obtained from the analysis is 0.773 depicts that dataset in this study has reasonably high level of sampling adequacy, depicting that it is suitable for factor analysis. Bartlett's test of sphericity evaluates whether the observed variables in dataset are significantly correlated that is criterion for conducting factor analysis. Bartlett's test gives in an approximate chi-square value, degrees of freedom (df), and p-value. In this circumstance, Bartlett's test yields an approximate chi-square score of 4461.22 with 66 degrees of freedom (df), and significant value (p-value) is 0.00. KMO measure of sampling adequacy is perfect in this study which means it signifies to go ahead with the analysis and Bartlett's test of sphericity advocate that the dataset is appropriate for exploratory factor analysis (EFA), providing assurance in the subsequent interpretation of factor structure and relationships among variables.

Table 3: Rotated Component Matrix

Items	Factors			
	WFH	EE	WM	EP
WFH1	0.966			
WFH2	0.954			
WFH3	0.976			
WM1			0.948	
WM2			0.925	
WM3			0.93	
EE1		0.97		
EE2		0.942		
EE3		0.965		
EP1				0.873
EP2				0.852
EP3				0.865

Notes: WFH = Work-from-home, EP = Employee Performance, WM = Work Motivation, EE = Employee Engagement
Extraction Technique: Principal Component Analysis.
Rotation Technique: Varimax with Kaiser Normalization.
Source: SPSS Output

From the EFA (Table 3) results, for WFH component, all three items (WFH1, WFH2, and WFH3) reveal elevated factor loadings, stretching from 0.954 to 0.976. This depicts that e items are intensely linked with the WFH construct which depicts cohesive representation of work-from-home practices.Likewise, the items linked to employee engagement (EE1, EE2, and EE3) establish high factor loadings, stretching from 0.942 to 0.970 which indicates robust association with the EE component. Thus depicting that these items effectively capture features of employee emotional involvement in work tasks.

Concerning work motivation (WM), the items (WM1, WM2, and WM3) revealconsiderable factor loadings, ranging from 0.925 to 0.948 which indicates strong association with the WM component. This proposes that these items meritoriously measure intrinsic motivation and the enjoyment resulting from work tasks.For employee performance (EP), the items (EP1, EP2, and EP3) showremarkable factor loadings, ranging from 0.852 to 0.873, depictingnoteworthy association with the EP component. This denotes that these items effectively capture insights of productivity and performance while functioning remotely.The factor loadings advocate that the observed variables are in line with respective components they are projected to measure thereby supporting the validity of the constructs under examination. These outcomesoffer a solid foundation for further analysis and elucidation regarding the affiliation between work-from-home (WFH), work motivation (WM), employee engagement (EE) and employee performance (EP) in the perspective of the study. Therefore each of the items has been perfectly loaded on their respective construct.

Data Analysis

The demographic features of sample in this study mirrors diversity for gender, age, tenure, marital status of the respondents, and educational qualification which augments the generalizability of the study insights to a broader population. Such demographic insights are crucial for contextualizing and understanding the succeeding analyses and interpretations connected to the bond between work-from-home, work motivation, employee engagement, and employee productivity. The demographic analysis gives idea on the features of the dataset. The demographic features of respondents in this study are presented (Table 4).

Table 4: Demographic Variables

Variable	Characteristic	Count	Percent
Gender	Male	174	65.7
	Female	91	34.3
Age Group	Less than 30 Years	25	9.4
	30 to 40 Years	199	75.1
	Above 40 Years	41	15.5
Tenure at present organization	Less than 3 Years	64	24.2
	3 to 5 Years	132	49.8
	Above 5 Years	69	26
Marital Status	Yes	228	86
	No	37	14
Education	Bachelor's degree	107	40.4
	Master's degree	144	54.3
	Other	14	5.3
Total Respondents		265	100

Source: Primary data

With regard to gender, the out of total 265 respondents in the study there are 174 (65.7%) male respondents and 91 (34.3%) female respondents. Such distribution depicts slight majority of male participants in the study. For the variable age groups, the majority of participants in this survey belong to age group of 30 to 40 years, with 199 (75.1%) individuals. The respondents aged less than 30 years' account for 25 (9.4%) respondents, while those above 40 years make up 41 (15.5%). Tenure with current organization differs among respondents with 64 (24.2%) participants having less than 3 years of tenure with current organization, 132 (49.8%) having tenure between 3 to 5 years and 69 (26%) having tenure above 5 years. Such distribution related to tenure with current organization indicates a diverse range of experience levels among the respondents.Concerning marital status, it is found that majority of respondents, 228 (86%), are married while 37 (14%) are unmarried. Hence, significant proportion of the sample population is in committed relationships.For the variable education, the majority of respondents embrace a Master's degree, with 144 (54.3%) individuals, followed by respondents with a Bachelor's degree, encompassing 107 (40.4%) respondents. A smaller proportion with 14 (5.3%) respondents, stated of having other educational qualifications.

H1: Work motivation mediates the relationship between work-from-home and employee productivity.
Mediation analysis has been conducted using Haye's PROCESS Macros with Model 4 using SPSS. The mediating effect of work motivation (M = 3.90, SD = 0.44) on the relationship between WFH (M = 4.01, SD = 0.64) and employee productivity (M = 4.89, SD = 0.32) has been evaluated using PROCESS Macros Model 4 based on the standard given by (Hayes, 2013). The direct consequence of work-from-home on employee productivity ($\beta = 0.12$, $t = 4.48$, $p < 0.05$) is statistically significant (Table 5). It demonstrates that that there is a positive and significant connection between working from home and employee productivity.The indirect effect of work-from-home on employee productivity through mediating variable work motivation ($\beta = 0.04$, [0.01; 0.09]) is significant. When there is no zero between the upper bound and lower bound confidence intervals, then it is perceived as significant. This advocates that work motivation partially mediates the bond between work-from-home and employee productivity. Precisely, a portion of the effect of working from home on employee productivity is elucidated by its influence on work motivation. This mediation is referred as complementary which means that work motivation enriches the positive influence of working from home mode on employee productivity.

Table 5: Mediation Analysis

Effect	Path	Beta	t-value	p-value	95% Confidence Interval LLCI	ULCI	Relationship
Direct	WFH→EP	0.12	4.48	0.00	0.07	0.17	Significant
Indirect	WFH→WM→EP	0.04			0.01	0.09	Complementary Mediation
	WFH→ EE→EP	-0.02			-0.04	-0.01	Competitive Mediation

Notes: WFH = Work-from-home, EP = Employee Performance, WM = Work Motivation, EE = Employee Engagement, LLCI = Lower Limit Confidence Interval, ULCI = Upper Limit Confidence Limit.
Source: SPSS Output

H2: Employee engagement mediates the relationship between work-from-home and employee productivity. Mediation analysis have been implemented to know the mediating position of employee engagement (M =3.80) on association between WFH (m = 4.01, SD = 0.64) and employee productivity (4.89, SD=0.32). The direct affect of work-from-home on employee productivity (β = 0.12, t = 4.48, p < 0.05) is statistically significant (Table 5). The indirect affect of work-from-home on employee productivity through employee engagement (β = -0.02, [-0.04;-0.01]) is significant. The results from mediation analysis depicts that employee engagement plays the role of mediator in the connection between work-from-home and employee productivity. Conversely, unlike work motivation, this mediation is competitive, as the indirect effect is negative. This designates that higher levels of employee engagement may decrease the positive impact of working from home on employee productivity.

H3: Gender moderates the relationship between work-from-home and employee productivity.

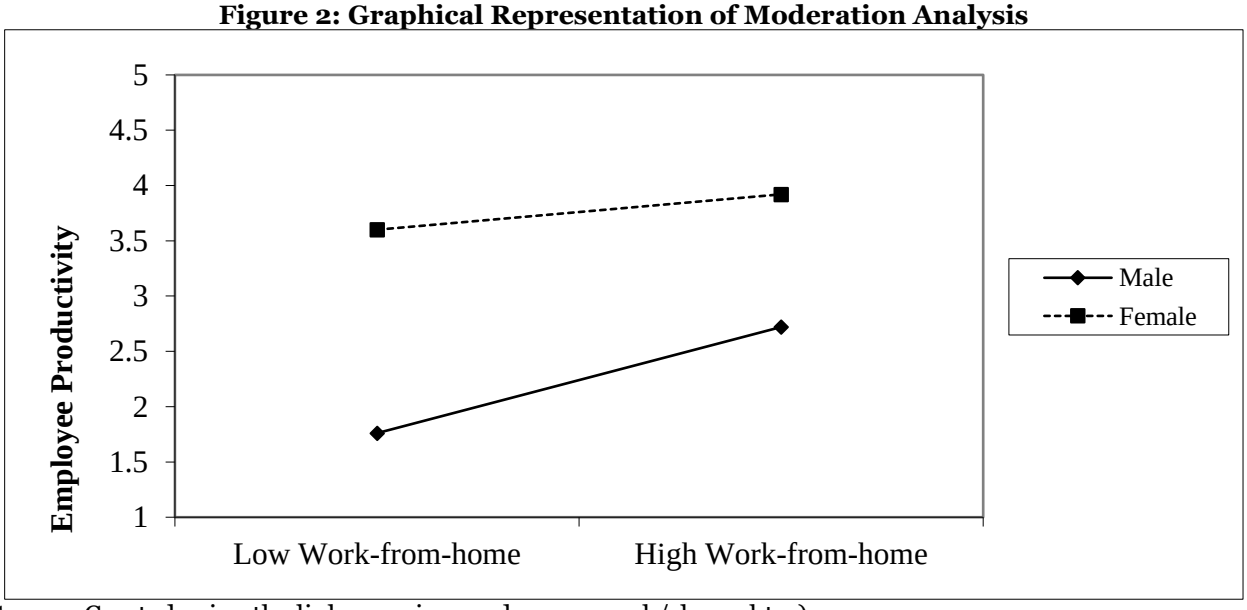
Table 6: Moderation Analysis

Path	Beta	t-value	p-value
WFH → EP	0.32	3.06	0.00
Gender →EP	0.76	2.32	0.02
(WFH*Gender)→EP	-0.16	-2.10	0.04
R-Square	0.11		
F(3,261)	10.42*		

Notes: *Significant at p < 0.001, WFH = Work-from-home, EP = Employee productivity
Source: SPSS Output

Moderation analysis have been executed to know the moderating position of gender (Group 1 = Male; Group 2 = Female) on the relationship between WFH (M = 4.01, SD = 0.64) and employee productivity (m = 4.89, SD = 0.32). The output from the moderation study specifies that gender moderates the relationship between work-from-home (WFH) arrangements and employee productivity (EP). Firstly, the direct influence of WFH on EP is noteworthy (β = 0.32, t = 3.06, p < 0.001) illustrating that WFH positively influences employee productivity (Table 6). Gender as moderator alone significantly predicts EP (β = 0.76, t = 2.32, p = 0.02) which means that gender plays a role in shaping productivity levels, with females displaying higher productivity compared to males. More importantly, the interaction between WFH and gender is also significant (β = -0.16, t = -2.10, p = 0.04 which illustrate that the effect of WFH on EP is moderated by gender. Specifically, while WFH positively impacts productivity overall, this effect is diminished for females compared to males. The model explains 11% (r-square = 0.11) of the variance in EP is explained by the predictor variable and the F-test is significant (F(3,261) = 10.42, p < 0.001), demonstrating that the model at the boarder level is statistically momentous. These findings of moderation analysis suggest that gender differences should be considered when implementing remote work policies and interventions intended at enhancing employee productivity. The graphical presentation also shows that female group have more employee productivity in relative to male group (Figure 2).

Figure 2: Graphical Representation of Moderation Analysis



(Source: Created using the link www.jeremydawson.co.uk/slopes.htm)

Discussion and Conclusion

The findings from this research work shed light on the complicated link between work-from-home (WFH), work motivation (WM), employee engagement (EE), and employee productivity (EP). The results from data analysis using statistical tools reveal that while WFH positively influences EP directly, its impact is further nuanced by the mediating role of WM and EE. Specifically, work motivation serves as complementary mediator, augmenting the positive effect of WFH on EP by fostering intrinsic motivation and task enjoyment. Conversely, employee engagement acts as competitive mediator, mitigating the positive impact of WFH on EP by potentially diverting attention. Gender has moderating effect in the circumstance of work-from-home environment. The employee productivity is influenced by the gender which means organizations need to support employee based on gender while working from home. These research outcomes accentuate the magnitude of considering multiple variables when evaluating the implications of remote work arrangements on employee performance thus keeping the need for businesses to promote a supportive work environment which develops both motivation and employee engagement to boost productivity in WFH settings.
This research accentuates the complex mode of the affiliation between WFH, WM, EE, and EP thus offering valuable insights for organizations steering the increasingly ubiquitous shift towards remote work. By means of understanding the mediating roles of work motivation and employee engagement and moderating role of gender, IT organizations can shape interventions and policies to meritoriously harness the advantages of remote work while justifying potential challenges. Strategies intended at promoting work motivation and nurturing a sense of connection and employee engagement among remote workers are essential for maximizing productivity and ensuring persistent organizational success in the progressing landscape of work arrangements. Work motivation is more prominent irrespective of work environment whether people work from regular office of from their home. The employee needs both intrinsic motivation as well as extrinsic motivation which eventually improve employee productivity. The performance outcomes of employees such as job satisfaction, organizational citizenship behavior and organizational commitment are resultant of work motivation. Employee engagement is not very significant in the setup of work-from-home (WFH) because employees have self-leadership while working-from-home as per opinion of some experts in earlier research works. Hence job autonomy and empowerment are decisive for employees in the backdrop of work-from-home environment.

Contribution of theory

This research makes significant contribution to the understanding of remote work dynamics by inspecting the mediating affect of work motivation and employee engagement in the affiliation between work-from-home (WFH) environment and employee productivity. By finding the complementary and competitive mediation effects of work motivation and employee engagement and moderating role of gender, this research offers appreciated insights into the nuanced methods in which WFH impacts employee performance. These findings offer empirical confirmation to inform organizational policies and practices aimed at optimizing productivity in WFH settings thus highlighting the importance of cultivating a supportive work environment that fosters both intrinsic motivation and a sense of engagement among remote workers. This research work enhances our understanding of the complexities of WFH dynamics and provides practical direction for organizations traversing the transition to remote work arrangements.

Managerial Implications

The insights from this study offer significant managerial implications intended for organizations looking for improving productivity in WFH environment. Firstly, it is vital for managers to identify the significance of nurturing work motivation among remote employees. By means of providing opportunities for job autonomy, skill development, and meaningful task assignments can enrichwork motivation and bolster productivity. Next, managers should arrange maintaining open lines of communication and providing regular feedback to safeguard that remote workers feel valued and engaged in their roles. Furthermore, efforts to endorse employee engagement are essential for alleviating potential distractions and enhancing focus and commitment to tasks. Creating virtual social opportunities, smoothing team collaboration, and identifying employee contributions can foster a sense of belonging and connection, thus promoting employee engagement and eventually enhancing overall productivity in remote work settings. By executing these strategies, organizations can influence the benefits of remote work while effectively addressing the challenges related with guaranteeing high levels of employee motivation and employee engagement.

Limitations and Future Research

It is important to acknowledge few limitations with this research work. One of the primary drawbacks of this research work is the dependence on self-reported data that could be subject to reply biases such as social desirability or recall inaccuracies. Next, the usage of cross-sectional data bounds research work ability to

establish causality definitively, as longitudinal research designs or experimental designs would offer stronger evidence of the relationships examined. Future research could deal with these limitations by employing mixed-method approaches which combine quantitative analyses with qualitative insights or by conducting longitudinal studies to track variations in WFH dynamics over time. Moreover, exploring contextual factors like organizational culture, job characteristics, and technological infrastructure might offer deeper insights into the mechanisms fundamental the relationships between WFH, motivation, engagement, and productivity thereby elevating understanding of WFH dynamics and informing more personalized interventions and policies.

The questionnaire used in this study has potential for measuring the employee perception towards work modes and more precisely for remote working environment. Therefore it can utilized to conducting studies in other locations and compare the results with this study. The model in this study is developed based on the literature but does not perfectly represent any particular theoretical model. Hence there is need to conduct studies to develop and propose a research model more significant for work-from-home (WFH) setting. Home office set up is new variable in the area of remote work setting, therefore it can be introduced as mediating variable to study the perception of employees towards WFH and employee outcomes.

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