

# Perceived Effectiveness of Work from Home (WFH) Employees: A Basis for Enhancing Employee Engagement

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## Abstract

Over the past years, there has been a shift in the style of work carried out in terms of employee's location of work. Employees have expanded their location of the working environment to have the opportunity of carrying out their day-to-day tasks at any time, in any chosen location, especially now that the world is having a global pandemic. The current study utilized a Structural Equation Modeling (SEM) approach to determine what organizational policy and employee engagement program will best suit WFH employees with respect to varying factors that are perceived to drive home-based employee performance consistent with organizational strategy and objectives. A total of 158 respondents were collected from the survey. The result of this study showed that WFH arrangement is significantly affected by the company factors, which include the people management, HR policies, government compliance, and executive leaders of the company. Subsequently, the result also proved that employees' engagement has a moderating effect on the WFH arrangements of the company and their employees' effectiveness in their job. Hence, the established implementation framework of the WFH arrangements from the findings of this study will benefit the company by the increase of high performing, productive, and engaged workforce.

## Keywords

Structural Equation Modeling (SEM), work-from-home (WFH), global pandemic, employee engagement, employee effectiveness

## 1. Introduction

The prevalence of work from home (WFH) arrangements in firms has grown in recent decades primarily due to advancements in information and communication technologies (ICT), which revolutionized everyday work and life in the 21st century. Work from home (WFH) setup is an arrangement for people working from their abode or other location of their choice away from the employer's workplace on paid time as provided by their employer (Schall, 2019). Also, WFH is characterized by two main aspects, namely: (a) employees under the arrangement with their employers, WFH employees use mostly smartphones, tablets, laptops, and desktop computers to perform work outside the employer's premises (Eurofound & ILO, 2017). work outside the common workplace, and (b) a connection between home and office exists. With the disruption caused by the coronavirus, most companies required their employees to work from home full-time to comply with the pandemic protocols due to reasons of health risks and safety. As such, all WFH employees who perform work tasks and activities during the crisis will expect this set up toward the new normal (ILO, 2020).

According to Cohan (2013), a work-from-home environment can improve employees' level of engagement since such an environment allows employees to carry out their other responsibilities outside of work. It encourages a better work/life balance, brings about improvements in their health and well-being, and also leads to increased motivation with less stress and with a sustained level of engagement when provided with telecommuting facilities (Griswold, 2014) for remote workers that have a personal connection to the organization's mission and vision and where they feel the work culture is familial (Lee, 2018). As employees have different preferences, mandatory working from home could induce dissatisfaction (Belanger, 1999). Additionally, WFH is experienced as a benefit and as a symbol of appreciation and trust if it is voluntary. Only under this condition, employees respond to working from home with "extra" work effort (Fehr & Gächter, 2000).

A potential drawback of working from home is that it can cause personal and professional isolation because employees have reduced social interaction (Hill et al., 2003). Therefore, firms need to adjust their organizational culture to working from home. Employees were used to having regular face-to-face team meetings with supervisors and colleagues to share important information, to feel integrated into the team, and to identify with the company (Bailyn, 1988). Furthermore, employees have the highest intrinsic motivation for being made responsible for their work and for getting regular feedback on their performance (Hackman & Oldham, 1976). Thus, firms need to make sure that they provide appropriate feedback mechanisms and programs to sustain social collaboration.

With the workplace evolving from an office-based and/or hybrid, working environment to a must work home setup, employee engagement needs will vary (Khan et. al, 2015). The general management problem surfacing was while the number of work-from-home employees has steadily increased, the levels of employee engagement have been decreasing. Indeed, some employees are not engaged at work (Gallup, 2017) and more disengaged employees are working from home and experience a work culture that limits their career development opportunities, minimizes their visibility within the organization, and increases their feelings of isolation (Van Yperen et al., 2014). These employees contribute significantly to the associated annual costs of employee disengagement to business.

Based on the aforementioned positive and negative effects on levels of engagement based on differing employee perspectives, organizations will have to re-calibrate their strategy, policies, infrastructure, and programs regarding its influence on employee engagement as one of the most important organizational factors in a business's success (James, 2016). Literature is extant in the field of employee engagement but grounded on face-to-face office environments and based on management initiatives implemented in workplaces of various industry settings of the old normal, i.e., before the covid-19 pandemic outbreak and its disruptive consequences to the business. Few studies have emerged on the same field of interest with a pandemic setting and if any, researches were about organizational efficiency and customer outcomes of WFH schemes with little or none about the level of engagement. With the new normal on the horizon and the work from home arrangement institutionalized, it will fittingly concern organizations and management to better understand the WFH implications and its influence, whether positive or negative, on employee engagement levels from an organizational perspective.

In this light, an answer will be interestingly sought to the question, “What organizational policy and employee engagement program will best suit WFH employees with respect to varying factors that are perceived to drive home-based employee performance consistent with organizational strategy and objectives?” Specifically, the study aims to achieve the following objectives:

1. To identify the company and personal factors that shape the WFH arrangement, and the changes thereto as affected by the pandemic protocols.
2. To assess the perceived effects of WFH arrangement to the level of employee effectiveness
3. To recommend a management program to enhance employee engagement to improve effectiveness of WFH employees.

The results of the study will benefit corporate policy makers and management in terms of identifying the factors that contribute to the engagement level of WFH employees and consequently to the effectiveness of office employees made to work under the WFH scheme. In the corporate world after the Covid-19 outbreak toward the new normal, HR practitioners will be able to decide on reviving and creating employee relations programs; line managers will be able to directly spend effort in reaching out to home-based subordinates for dialogues, feedback and the like; and middle managers can strategize an overall change management approach consistent with the findings of the study.

## **2. Methodology**

The main objective of this study is to identify the factors that affect Work-From- Home arrangement and their perceived effects on the level of employee effectiveness. This is to consequently determine the significance of employee engagement in enhancing employee performance and recommend what organizational policy and program will best suit WFH employees in view of varying conditions at home and the many different perceptions of individual employees as regards the office support and management approach toward employee engagement as key organizational success factor in business. The logic of the study will be guided by the following theoretical framework as shown in figure 1.

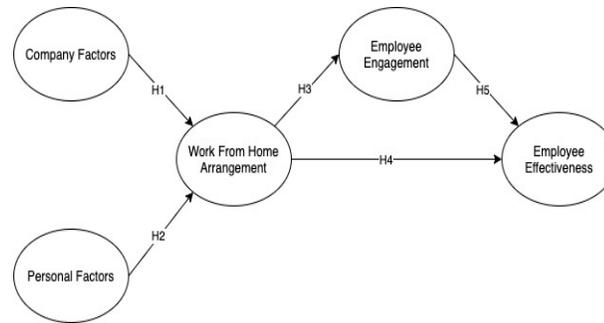


Figure 1. Theoretical Framework

The above framework shows the basic relationship between factors that were brought by the pandemic situation to the implementation of Work from Home (WFH) as one of modalities for work. The personal and company factors execute the decision-making process of an organization to shift into the WFM setup. As per personal factors, employees look into the working environment, professional development and employee's over-all welfare as essential components in WFH. Whereas the company considers the costing and budgetary requirements, operations and monitoring mechanism of staff, alignment and organizational productivity as one of its significant factors. Based on the foregoing, the study posits the following hypotheses:

H10: There is no significant relationship between company factors and WFH arrangement and activities.  
H1a: There is a significant relationship between company factors and WFH arrangement and activities.

H20: There is no significant relationship between personal factors and WFH arrangement and activities.  
H2a: There is a significant relationship between personal factors and WFH arrangement and activities.

H30: There is no significant relationship between WFH arrangement and the level of employee effectiveness.  
H3a: There is a significant relationship between WFH arrangement and the level of employee effectiveness.

H40: There is no significant relationship between WFH arrangement and activities and the level of employee effectiveness.  
H4a: There is a significant relationship between WFH arrangement and activities and the level of employee effectiveness.

H50: There is no moderating effect of employee engagement on the relationship between WFH arrangement and activities and the level of employee effectiveness.  
H5a: There is a moderating effect of employee engagement on the relationship between WFH arrangement and activities and the level of employee effectiveness.

## 2.1 Data Gathering

This study will seek to measure the employees' perceived effectiveness from a work-from-home (WFH) arrangement, which will be a basis for formulating employee engagement enhancement programs. The collection of the data will be done through a survey questionnaire whereby a question corresponds to each indicator variable accordingly as summarized and described in Table 1. This survey questionnaire will be the main research instrument using the five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) designed for target respondents to express the level of agreement to each question that will measure each indicator variable factored into each construct of interest.

The target respondents of this study are the WFH employees from Metro Manila and other urban areas with corporate entities affected by the pandemic protocols and labor restrictions related to COVID-19. A total of at least 150 Work from Home (WFH) employees who are concentrated in job functions that depend heavily on telephones, computers, and other information technology devices will be the subject of the study.

Table 1. Description of Constructs and Indicator Variables

<b>Construct</b>	<b>Description</b>	<b>Code</b>	<b>Indicator Variables</b>	<b>Cited Source</b>
Company Factors	Aims to know how employees perceive the company/environment-related factors associated with their engagement and effectiveness towards the company.	CF1	Developmental opportunities	Soares & Mosquera (2019)
		CF2	Incentive pay, recognition, profit sharing, and gainsharing	Karatepe (2013)
		CF3	The updatedness or novelty of the technology used in processes	
		CF4	The rate of change in the company's processes, techniques, and technology	
		CF5	Empowering project team members	Lin (2007)
		CF6	Knowledge sharing	
		CF7	Continuous and comprehensive communication towards project team members	
Personal Factors	Aims to how individual related factors affect their perception towards the work from home arrangement and how it will affect their productivity and effectiveness.	PF1	Promotion aspects	Lee, Yang, and Li (2017)
		PF2	Working under pressure	
		PF3	Limited capacity	
		PF4	Employees are willing to accept difficult work and challenges in the company.	
		PF5	The rules and regulation in the company makes it difficult for their employees to do a good job.	
		PF6	The operation procedure of the company has made their employees exhausted.	
		PF7	Work pressure makes employees have no time for what they want to do.	
Work From Home Arrangements	Aims to know whether the work from home arrangements has a positive outcome towards the engagement and effectiveness of an employee.	WFH1	Advanced working technologies and tools available	Ramos & Prasetyo (2020)
		WFH2	Home environment that provides with the opportunity to carry out daily jobs correctly and effective.	
		WFH3	Rate of pay, including overtime and night shift differential, and other monetary benefits not lower than provided by law and/or CBA.	Department of Labor and Employment (2020)
		WFH4	Access to the regular workplace and company information to prevent isolation from the company's community.	
		WFH5	Training and career development opportunities as those of comparable workers at the usual workplace.	
Employee Engagement	Aims to know the degree of enthusiasm and dedication of the employees given with a work from home arrangement.	EN1	High level of energy	Schaufeli et al. (2006)
		EN2	Employees are motivated to work.	
		EN3	To put extensive effort towards their job given certain circumstances.	
		EN4	Enthusiasm towards their job	
		EN5	Employees find their work to have full meaning and purpose.	
		EN6	Employees get carried away while working.	

		EN7	Employees find it difficult to detach themselves from their job.	
		EN8	Employees are immersed in their work.	
Employee Effectiveness	Aims to determine the adaptability of the employees towards the work from arrangement and how it affects their effectiveness in the company.	EE1	The degree to which an employee behaves positively consisting of volunteering for extra duties.	Koopmans et al. (2014)
		EE2	How well one can execute courses of action required to deal with prospective situations.	
		EE3	Implies a desire to do a task well, and to take obligations to others seriously.	
		EE4	Open-minded and approach new things with curiosity and tend to seek out novelty.	
		EE5	Employees actively participated in work meetings.	

### 2.3 Data Analysis

Structural equation modeling (SEM) is a multivariate statistical analysis technique that is used to analyze structural relationships. This technique is the combination of factor analysis and multiple regression analysis, and it is used to analyze the structural relationship between measured variables and latent constructs. This study will utilize SEM to test the hypotheses with a maximum likelihood estimation approach. As shown in Figure 1, there are a total of five latent variables - one exogenous latent variable (employee effectiveness) and four endogenous latent variables (company factors, personal factors, work-from-home arrangement, and employee engagement). AMOS 22 software will be used to conduct the analyses, with reference to the initial SEM framework (Figure 2) that reflects the indicator variables for each construct as follows:

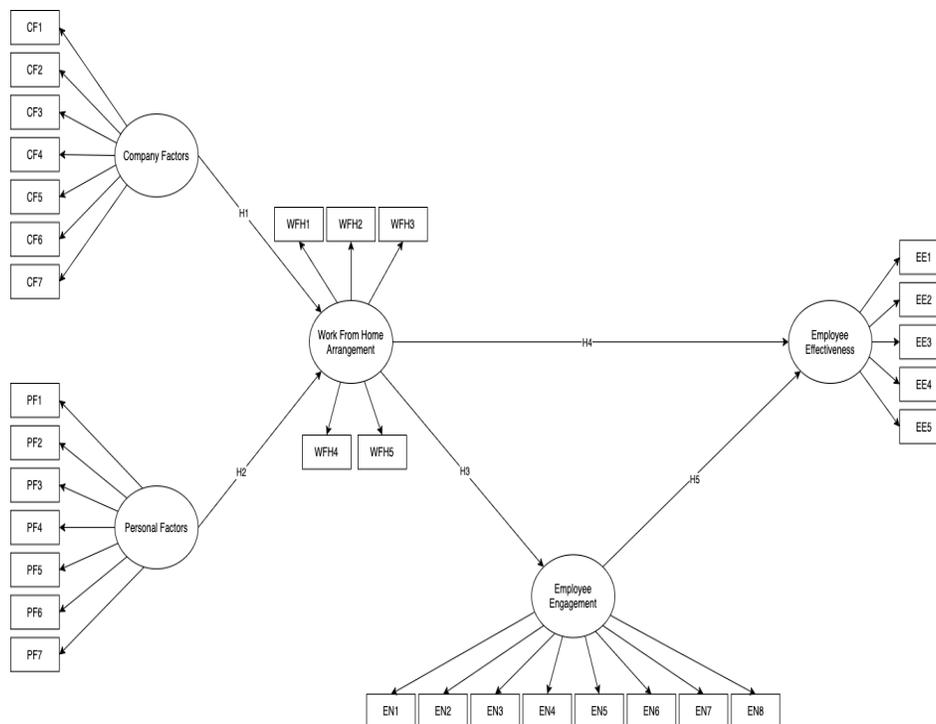


Figure 2. Initial SEM

The results of data analysis will be divided into two parts. Firstly, the SEM results will lead to the hypotheses test results of identifying which factors are significant and consequently a path analysis of the resulting structural model will yield the direct and indirect effects of significant factors and relationships. Secondly, said results will lead to insights on how to utilize and reinforce the significant factors influencing WFH arrangements to impact on both employee engagement and work (employee) effectiveness. Also, the SEM results will yield significant relationships between which specific elements of WFH arrangements and work effectiveness as well as which employee engagement factors having a moderating effect on the aforementioned relationship.

The structural relationships and the significant factors will then become the basis for enhancing employee engagement initiatives and programs that will positively influence the desired outcome of WFH arrangements in the organizational context as well as from the employees' viewpoint based on their perceptions of the effects of personal and company factors that directly and indirectly influence the effectiveness of WFH employees.

### 3. Results and Discussion

This study's first objective was to identify and assess the company and personal factors that shape the work from the home arrangement and the changes thereto as affected by the pandemic protocols. To attain data for this study, the researcher conducted an online survey for employees currently working from home.

The survey helped the researcher with accurate data of how they felt about work from home arrangement. A total of 158 respondents were collected from the survey. Table 2 represents the descriptive statistics of the respondents. Based on this, there is an equal distribution within the population. Therefore, the descriptive statistics was not considered as an indicator as it would not affect the constructed model for this study.

Table 2. Descriptive Statistics (n=158)

Characteristics	Category	N	%
Gender	Female	79	50
	Male	76	48.1
	LGBT	3	1.9
Age	18 to 35 years old	89	56.3
	36 to 55 years old	65	41.1
	Older than 55 years old	4	2.5
Marital Status	Single	84	53.2
	Married	74	46.8
Do you have children?	Yes	84	53.2
	No	74	46.8
Educational Attainment	Highschool	8	5.1
	Technical Vocational	9	5.7
	Bachelor	130	82.3
	Masteral	9	5.7
	PhD	2	1.3
Working Experience	0 to 3 years	18	11.4
	3 to 5 years	36	22.8
	5 to 10 years	44	27.8
	10 to 15 years	30	19
	Over 15 years	30	19

Figure 3 illustrates this study's measurement model for assessing and determining the factors that affect the employees' engagement and effectiveness in a work from home arrangement due to the pandemic. The researcher first estimates the parameters' values and captures the unreliability of the measurement in the model by utilizing the SEM approach.

On the other hand, table 3 represents the initial model fit test result during the initial run of this study's model in the AMOS software. Based on the result, the initial model did not meet the suggested cut-off, which means it did not

qualify for a good model fit. Thus, a revision on the model was done by eliminating variables with a factor loading of less than 0.40 (Ertz, Karakas, and Sarigollu, 2016) and through modification of indices to the covaried error variables.

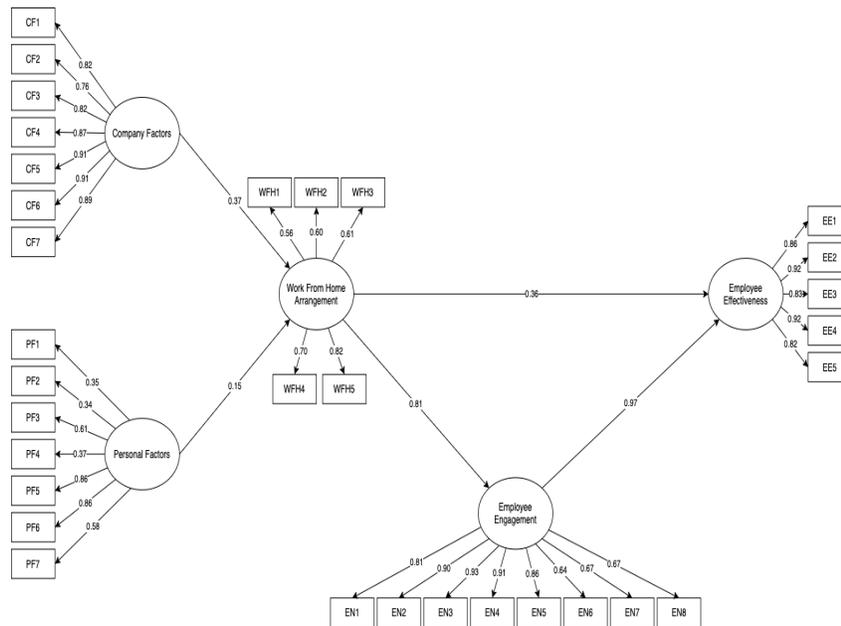


Figure 3. Initial SEM Result

Table 3. Initial Model Fit Test Result

Measure	Parameter Estimates	Suggested Cut-Off
IFI	0.757	> 0.90
TLI	0.735	> 0.80
CFI	0.755	> 0.90
GFI	0.581	> 0.80
AGFI	0.518	> 0.80
RMSEA	0.127	≤ 0.05 – 0.08

Figure 4 and Table 4 represents the final model fit after the modification of indices. Compared to the previous calculation, the result showed a significant improvement on the parameter estimates of each measured indices.

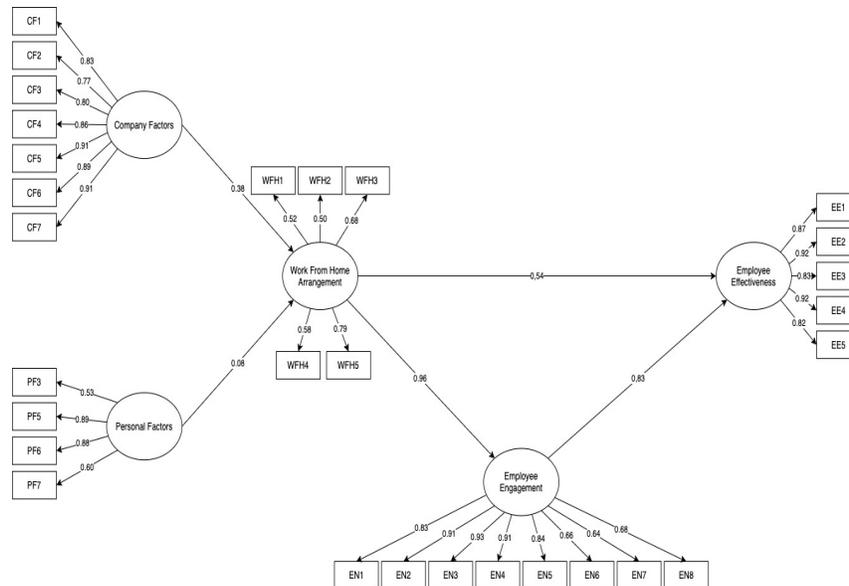


Figure 4. Final SEM Result

Table 4. Final Model Fit Test Result

Measure	Parameter Estimates	Suggested Cut-Off
IFI	0.906	> 0.90
TLI	0.887	> 0.80
CFI	0.904	> 0.90
GFI	0.769	> 0.80
AGFI	0.708	> 0.80
RMSEA	0.080	≤ 0.05 – 0.08

Previous research mentioned that the Incremental Fit Index (IFI) measures how the model fits with no model. The result showed that the final model of this study passed the suggested cut-off of 0.90. Meanwhile, Tucker-Lewis Index (TLI) is introduced as an index that prefers simpler models. Hooper et al. (2008) suggested that this index's acceptable cut-off must be greater than 0.80. The TLI value for this final model resulted in 0.887 and can pass as a good model fit. Regarding the Comparative Fit Index (CFI), where a small sample size is considered, the final model result met the suggested cut-off, therefore, could pass the good model fit. Goodness-of-Fit Index (GFI) was introduced as an alternative Chi-square test to measure the fit between the hypothesized model and the observed covariance matrix. The GFI value from the initial to final model was 0.581 to 0.769. However, even with the modification of indices, it still failed to pass the suggested cut-off of 0.80 by Gefen et al. (2000). Same with the Adjusted Goodness-of-Fit Index (AGFI), which also failed to pass the suggested cut-off. Lastly, Root Mean Square Error of Approximation (RMSEA) is considered to be one of the most informative indices due to its sensitivity to the number of estimated parameters in the model (Diamantopoulos & Siguaw, 2000), and a reduction in the numbers of parameters from the initial model, with the result of 0.080, a score within the suggested cut-off between 0.05 and 0.08 (Hooper et al., 2008). Overall, the final model fit test has shown parameters along with the suggested cut-off, indicating that the final model can be accepted and be used to analyze the direct, indirect, and total effects of each latent to each other.

Table 5. Direct, Indirect, and Total Effects

Variables	Direct	P-value	Indirect	P-value	Total Effect	P-value
CF → WFH	0.383	0.001	-	0.001	0.383	0.001
PF → WFH	0.084	0.078	-	-	0.084	0.078
WFH → EN	0.964	0.001	-	-	0.964	0.001
WFH → EE	0.542	0.005	0.806	0.005	1.347	0.005
EN → EE	0.836	0.001	-	-	0.836	0.001

The direct, indirect, and total effects of this study's different latent factors are presented in table 5. There are two variables that may affect the work from home arrangement of the company. However, the result indicates that company factors have a significant direct effect on the work from arrangement and that personal factors have no significant direct effect on it. The result also shows that the work from home arrangement has a significant direct effect on employee engagement and employee effectiveness. Finally, employee engagement is reported to have a significant direct effect on employee effectiveness.

Work from home (WFH) is defined as work performed from various places that change employees to increase their labor activeness by the utility of information and communicating technologies, which has been considered as an alternative way of managing work during this pandemic. This study aims to identify the various factors that influence the WFH arrangements to impact employee engagement and work (employee) effectiveness. Hence, SEM was utilized to analyze the interrelationship among Company Factors (CF), Personal Factors (PF), Work From Home Arrangements (WFH), Employee Engagement (EN), and Employee Effectiveness (EE). A survey questionnaire was distributed and a total of 158 data samples were collected.

WFH employment was relatively uncommon before the pandemic despite the advances in information technology over recent decades. It seems reasonable that the pandemic leads to sudden acceleration in adopting flexible work arrangements and WFH technology precisely in those occupations where the unused capacity for WFH was the greatest. In this study, SEM indicated that CF has a significant direct effect on WFH arrangements ( $\beta:0.525$ ,  $p=0.001$ ), which makes several implications for employee considerations when working during the pandemic:

1. The results indicate that, above all, continuous and comprehensive communication towards project team members is essential to employees in a WFH arrangement. Employees tend to have a positive attitude towards the company's WFH arrangements when top managers empower them and provide necessary help and resources during work, especially now that everything is remote.
2. Employees think that the company has an effective WFH arrangement based on the rate of change in the company's processes, techniques, and technology. This would mean that the company can adjust to the ongoing pandemic in the country.
3. Even with the WFH arrangement, the company should still consider providing developmental opportunities for their employees to boost their work attitude and performance.
4. Employees tend to overwork at home. Providing them with incentive pay and recognition could enhance their point of view towards the company's WFH arrangements during this pandemic.

On the other hand, the result showed that personal factors have no significant direct effect on WFH arrangements as opposed to previous research (Diab-Bahman & Al-Enzi, 2020; Lakawat, 2021; Bick, Blandin, and Mertens, 2021). But employees find the company's rules and regulations towards WFH arrangements challenging to do a good job, which later on results in exhaustion, is one of the most contributing factors in this latent.

Regarding with the WFH arrangement, SEM showed that it had a significant direct effect on EN ( $\beta:0.96$ ,  $p=0.001$ ) and EE ( $\beta:0.54$ ,  $p=0.005$ ). Based on the result, employees are motivated and enthusiastic about their job when they have a comfortable working place that is suitable for this type of working arrangement. They also tend to exert extensive effort towards their job given certain circumstances when the company provides a rate of pay, including overtime and night shift differential, and other monetary benefits not lower than provided by law and/or CBA established by the Department of Labor and Employment (DOLE). The result also implies that EN has a moderating effect between the WFH arrangement and EE. Provided with the said insights, employees tend to be less distracted when their environment for working allows them to carry out daily jobs correctly and effectively. These types of people are shown to be actively participating during work and have a desire to do a task well, and take their job obligations seriously given the right WFH arrangement suited for them.

With this information, figure 5 represents the reimaged framework to effectively implement a WFH arrangement that will best suit the employees with respect to varying significant factors that are perceived to drive home-based employee performance and engagement. Since personal factors had no significant effect on the work from home

arrangements, it was not included to the proposed framework. Future study to have more respondents and include other provinces in the Philippines.

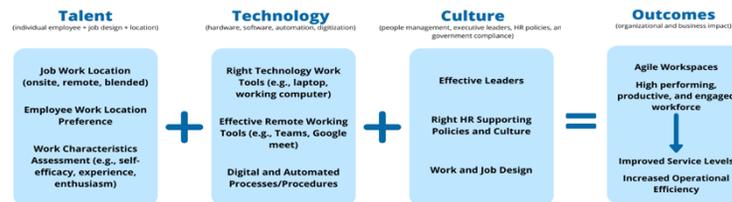


Figure 5. Implementation Framework for WFH Arrangements

## 4. Conclusion

Work from home is defined as work performed from various places that change employees to increase their labor activeness by the utility of information and communicating technologies. It has been considered as an alternative way of manage work since the start of the COVID-19 pandemic. This study utilized the Structural Equation Modelling (SEM) approach to determine what organizational policy and employee engagement program will best suit WFH arrangements of the employees with respect to varying factors that are perceived to drive home-based employee effectiveness. A total of 158 respondents answered the survey questionnaire distributed online, which contained 38 questions. The result of this study showed that WFH arrangement is significantly affected by the company factors, which include the people management, HR policies, government compliance, and executive leaders of the company. Subsequently, the result also proved that employees' engagement has a moderating effect on the WFH arrangements of the company and their employees' effectiveness in their job. Hence, the established implementation framework of the WFH arrangements from the findings of this study will benefit the company by the increase of high performing, productive, and engaged workforce.

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## Biography

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