Work from Home and Employee Productivity during COVID-19

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Authors' contributions

*This work was carried out in collaboration between both authors. Both authors read and approved the
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ABSTRACT

People were extremely stressed as a consequence of COVID-19 and the lockdown scenario. In the middle of all of this upheaval, employees who had to work from home (WFH) had to deal with a lot of stress. Individuals' life satisfaction is dependent on work-life balance (WLB) and job satisfaction. This study tries to identify the relation of these three variables (via, stress, WLB, and job satisfaction) on advertising industry employee productivity during the COVID-19 pandemic. Data was collected from 150 employees, selected through purposive sampling, who are working in advertising agencies in Kerala (India). A questionnaire was administered using google form to collect data. The data was analysed using correlation and regression techniques to test the hypothesis. In all the three cases null hypotheses was rejected indicating a significant influence of the independent variables on employee productivity. The outcome of this study can be of strategic importance for the organizations working in this industry. Organizations can adapt their human resources (HR) policy based on the recommendation from the study, and the marketing department can restructure their target and incentive policy.

1. INTRODUCTION

Working from home has become more popular during the lockdown phase of pandemic COVID-19, as many governments use a physical separation approach to avoid the risk of the pandemic [1]. As a result, working from home has become the sole option for employees from majority of sectors. The outbreak of COVID-19 pandemic and the long lockdowns following that has caused panic and a sense of uncertainty in almost all spheres of life [2,3]. In June 2021, the number of COVID cases has reported to be more than 3 crores in India, out of which more than 29 lakh cases are reported in Kerala. Employees who were working remotely during this phase

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had to face may worries and fears too. As far the organization is considered employee productivity is one of the most significant factor influencing its success and existence, hence it is critical to determine whether working from home has an impact on productivity of the employees.

COVID-19 and the lockdown situation created a lot of stress among people. The employees who had to work from home in the midst of all these chaos had to go through a lot of stress as well [4]. The WLB and job satisfaction is essential for life satisfaction of individuals. This study tries to identify the relation of these three variables, via, stress, WLB, and job satisfaction on employee productivity during the COVID-19 pandemic. This study is conducted with the following objectives:

- To assess the relation of stress on employee productivity
- To analyse the relation between work life balance and employee productivity during COVID -19
- To assess the relation of job satisfaction of employee productivity during COVID -19

2. REVIEW OF LITERATURE

2.1 Work from Home

Many researchers have studied the concept of work from home (WFH) over the past years. Working from home is distinguished by two major characteristics, The first one is employees work outside of the typical workplace. Second, there is a link between the home and the office. The employment of IT and Telecom technologies allows for the interchange of communication and information with colleagues [5]. There are studies focusing on the benefits and challenges of WFH [6]. Influence of WFH on work family balance is also studied by many researchers [7]. However, researchers have not given much attention on the productivity aspect of WFH.

2.2 Stress

Stress is an unfavourable reaction experienced by persons who are subjected to high levels of pressure, work expectations, and workloads, all of which have a negative impact on the physical and mental health of the employee [8]. Work stress is defined as the tensions that people experience in their daily lives as a result of interactions with the outside world, which produce physical and emotional stress [9]. Work

Stress is a concern for both employees and employers. For employees job stress has a negative impact on their lives, wellness, performance, and income. For businesses, not just because of humanitarian concerns, but also because they have an impact on the firm's success and efficacy (Rivai & Sagala, 2011).

2.3 Job Satisfaction

Job satisfaction can also be defined as an employee's contentment with the benefits he or she receives from his or her job, particularly in terms of intrinsic motivation [10]. Job satisfaction would be more of an interior state or an attitude. It could be linked to a personalized sense of accomplishment, either quantitative or qualitative [11].

2.4 Work Life Balance

The necessity for an equilibrium between an employee's work and family has arisen as a result of work situations over time Oludayo et al., [12]. According to Bloom & Van Reenen [13], companies which adopt effective WLB policies get the benefits of the idea. These policies, according to Paryani [14], can boost job satisfaction and increase organizational engagement among employees.

2.5 Employee Productivity

The economic measure of output per input is called the employee productivity. Mathematically it is the log of total number of employees divided by net sales [15]. Employee productivity has become an important priority for businesses because the success of a company is largely dependent on the productivity of its personnel [16,17].

The review reveals that the constructs stress, job satisfaction and work life balance hugely impact the employee's performance and it in turn affects the success of an organization. Hence the impact of these factors on employee productivity needs to be quantitatively assessed.

3. METHODOLOGY

3.1 Research Design

Research design stands for the advance preparation of the approaches to be implemented to gather the necessary data and procedures to be used in the study. Research design, in

particular, plays a greater role in the reliability of the findings obtained and, as such, forms the firm basis of the whole research work system. The study is intended to find the factors or attributes that affect employee productivity as a result of stress, work life balance and job satisfaction

3.2 Data Collection Technique

A questionnaire containing 16 questions was prepared and was circulated among the 150 employees who are working in advertising industry to collect data.

3.2.1 Data collection

Primary data collected by circulating the questionnaire among employees who worked remotely during COVID-19 lockdown. The questionnaire consisted of 2 parts. First part captures the demographic details using categorical variable. The second part is related to the independent and dependent variables. The questions in second part are in 5 point Likert scale format. Secondary data collected with the help of different online journals, researches, newspapers, magazines etc.

3.2.2 Data source

The study used both primary data and secondary data.

The primary data is collected from 150 employee through structured questionnaire. Secondary data is obtained from various journals, reports and websites.

3.3 Sampling Technique

Population: Population refers to the total elements under study. The population for the study consists of employees who are working in advertising industry in Kerala.

Sampling Technique: A purposive sampling technique was used to identify the samples.

Sample size: Sample is a subset of the population, selected for the study. Here, a total of 150 employees from advertising industry were selected as the sample for the study.

Period of Study: The study was conducted for a duration of one month from 18th of March to 16th of April 2021.

3.4 Data Analysis

The data were collected using questionnaires with the help of Google forms. The collected data then were sorted and arranged for data analysis. The data was analysed and interpreted using SPSS software, Statistical tool like Regression and Correlation were used for drawing inferences.

3.4.1 Hypotheses

Hypothesis 1 – There is a negative relation between stress and employee productivity while working from home amidst COVID-19
Hypothesis 2 – There is a relation between Work Life Balance and employee productivity while working from home amidst COVID-19
Hypothesis 3 – There is a relation between job satisfaction and employee productivity while working from home amidst COVID-19

3.4.2 Data analysis

Hypothesis 1

H0 - There is no negative relation between stress and employee productivity while working from home amidst COVID -19
H1 - There is a negative relation between stress and employee productivity while working from home amidst COVID -19

Firstly, a Pearson correlation technique was used to find the relation among them.

Table 1. Correlation between stress and employee productivity

	Correlations	STR	EP
STR	Pearson Correlation	1	.824**
	Sig. (2-tailed)		.000
	N	150	150
EP	Pearson Correlation	.824**	1
	Sig. (2-tailed)	.000	
	N	150	150

**. Correlation is significant at the 0.01 level (2-tailed)
The correlation coefficient "r" is 0.824

As the above table shows us, the correlation between Stress and Employee productivity is 0.824 that is, they are strongly correlated. To further solidify and to find the extent of their relationship between them, we secondly try linear regression technique with the same data for Stress and Employee productivity. While taking data to conduct linear regression analysis, Employee productivity is set as dependent variable and stress as independent variable (Table 1).

The R value represents simple correlation amongst the variables, and here the R value is 0.824, which indicates a moderate correlation amongst the variables. The R^2 value says that 67.9% of variation in Employee productivity can be accounted for work and family related stress during COVID-19 period (Table 2).

So, the estimated regression equation is;

The line of regression Y on X is given as,

$$Y = a + bX$$

Employee productivity (EP) = 1.695 + 0.56*(Stress)

Where a & b are unknown constants known as intercept and slope of the equation. Thus, we reject the null hypothesis (H0) and accept the alternate hypothesis (H1).

As correlation and regression techniques show there is a significant relation between stress and employee productivity.

Hypothesis 2

H0 - There is no relation between Work Life Balance and employee productivity while working from home amidst COVID-19
H1 - There is a relation between Work Life Balance and employee productivity while working from home amidst COVID-19

Firstly, a Pearson correlation technique was used to find the relation among them (Table 3).

Table 2. Summary output table for the linear regression analysis between employee productivity and stress

Model summary									
Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	.824[a]	.679	.677	.36571	.679	312.819	1	148	.000

a. Predictors: (Constant), STR

Table 3. Coefficients table for the linear regression analysis done between employee productivity and stress

Coefficients[a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.695	.108		15.737	.000
	STR	.560	.032	.824	17.687	.000

a. Dependent Variable: EP

Table 4. Correlation between work life balance and employee productivity

Correlations

		EP	WLB
EP	Pearson Correlation	1	.454[**]
	Sig. (2-tailed)		.000
	N	150	150
WLB	Pearson Correlation	.454[**]	1
	Sig. (2-tailed)	.000	
	N	150	150

**. Correlation is significant at the 0.01 level (2-tailed)
The correlation coefficient "r" is 0.454

As the above table shows us, the correlation between Stress and Employee productivity is 0.454 that is, they are moderately correlated. To further solidify and to find the extent of their relationship between them, we secondly try linear regression technique with the same data for work life balance and Employee productivity. While taking data to conduct linear regression analysis, Employee productivity is set as dependent variable and work life balance as independent variable (Table 4).

The R value represents simple correlation amongst the variables, and here the R value is 0.454, which indicates a moderate correlation amongst the variables. The R^2 value says that 20.7 % of variation in Employee productivity can be accounted for work life balance during COVID-19 period (Table 5).

So, the estimated regression equation is;

The line of regression Y on X is given as,

$$Y = a + bX$$

Employee productivity (EP) = 2.080 + 0.394 *(Stress)

Where a & b are unknown constants known as intercept and slope of the equation. Thus, we reject the null hypothesis (H0) and accept the alternate hypothesis (H1).

As correlation and regression techniques show there is a significant relation between work life balance and employee productivity (Table 6).

Hypothesis 3

H0 - There is no relation between job satisfaction and employee productivity while working from home amidst COVID-19

H1 – There is a relation between job satisfaction and employee productivity while working from home amidst COVID-19

Table 5. Summary output table for the linear regression analysis between employee productivity and work life balance

Model summary								
Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics			
					R square change	F change	df1	df2	Sig. F change
1	.454[a]	.207	.201	.57483	.207	38.524	1	148	.000

a. Predictors: (Constant), WLB

Table 6. Coefficients table for the linear regression analysis done between employee productivity and work life balance

Coefficients[a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.080	.237		8.758	.000
	WLB	.394	.064	.454	6.207	.000

a. Dependent Variable: EP

Table 7. Correlation between job satisfaction and employee productivity

Correlations

		JS	EP
JS	Pearson Correlation	1	.663[**]
	Sig. (2-tailed)		.000
	N	150	150
EP	Pearson Correlation	.663[**]	1
	Sig. (2-tailed)	.000	
	N	150	150

**. Correlation is significant at the 0.01 level (2-tailed)
The correlation coefficient "r" is 0.663

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Table 8. Summary output table for the linear regression analysis between employee productivity and Job satisfaction

Model summary									
Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	.663[a]	.440	.436	.5863	.440	116.248	1	148	.000

a. Predictors: (Constant), JS

Table 9. Coefficients table for the linear regression analysis done between employee productivity and Job satisfaction

Coefficients[a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.598	.279		2.140	.034
	JS	.823	.076	.663	10.782	.000

a. Dependent Variable: EP

As the table shows us, the correlation between job satisfaction and Employee productivity is 0.663 that is, they are strongly correlated. To further solidify and to find the extent of their relationship between them, we secondly try linear regression technique with the same data for job satisfaction and Employee productivity. While taking data to conduct linear regression analysis, Employee productivity is set as dependent variable and job satisfaction as independent variable (Table 7).

The R value represents simple correlation amongst the variables, and here the R value is 0.663, which indicates a moderate correlation amongst the variables. The R^2 value says that 44.0% of variation in Employee productivity can be accounted for Job satisfaction during COVID-19 period (Table 8).

So, the estimated regression equation is;

The line of regression Y on X is given as,

Y= a+ bX

Employee productivity (EP) = 0.598 + 0.823*(Job Satisfaction)

Where a & b are unknown constants known as intercept and slope of the equation. Thus, we reject the null hypothesis (H0) and accept the alternate hypothesis (H1).

As correlation and regression techniques show there is a significant relation between job satisfaction and employee productivity.

4. FINDINGS

According to this study, employee productivity is influenced by factors like stress, work life balance and job satisfaction during the pandemic period. Stress shows a negative relation to productivity whereas work life balance and job satisfaction showed a positive relation to productivity.

The major findings for the study are as follows:

- Stress and employee productivity is negatively related, which means if there is higher stress employee productivity will be lower and vice versa.
- Work life balance of employees is related to employee productivity. This indicate that if the employees could balance work and life well then it will be having a positive impact on the productivity of the employees
- Job satisfaction of employees is related to their productivity during COVID-19. As job satisfaction increases the productivity also increases.

5. CONCLUSION

The study is aim at finding out the productivity of employee in working in Advertising Industry in Kerala. Which in relation to work with a view to understand the influence of the factors like stress, work life balance and job satisfaction in the productivity. This study primarily focuses understanding the effect of Work from home arrangements made as a result of COVID-19

crisis on employee productivity. This study summarizes the descriptive information as well as information from the employee survey. The outcome of this study can be of strategic importance for the organizations working in this industry. Organizations can adapt their HR policy based on the recommendation from the study, and the marketing department can restructure their target and incentive policy.

Through this research we could understand that the employees in Advertising industry perceives stress to be negatively influencing their productivity especially in the lockdown period, when they are working from home. They opinioned that work life balance is positively associated with productivity and the employees are also having similar line of perception with respect to job satisfaction. Working from home is best suited to employees working in knowledge-based industries, with few face-to-face interactions, and a high level of independence. Considering the given condition of the pandemic the company must proactively take supportive HR policy to ensure the welfare of its employees.

6. RECOMMENDATIONS

The employees are faced with lot of stress while working from home, especially, while the pandemic is in the background. So the company should take a flexible approach towards work and work schedule. Meeting time should be prescheduled and it should be concluded in the limited time. In an industry like Advertisement, where a lot of creative inputs are needed, employees won't be able to come up with their finest work, while they are stressed.

Balancing work life is also an essential factor for improving employee productivity. The organization should be considerate about the conditions in many of the households where the supportive environment may not be available for employees during such a chaotic time.

Job satisfaction is also inevitable for ensuring high level output among employees. The organization must make sure that it is adapting a very supportive and employee friendly HR policy these days.

Other recommendations are as follows:

➢ Provide stress relief sessions to the employees like online workout, yoga or virtual outing and virtual meet ups

➢ Company can rent out access to funny shows or web series for employees or they can make alliance with OTT platforms like Netflix to provide specific services to the employees at an affordable price.
➢ Arrange for counselling sessions
➢ Allowing flexible working times. Being considerate about their personal life and conditions is essential to keep employees motivated in this difficult time.
➢ Ensure that communications are happening in the utmost transparent manner, as there are much more chances of communication gap while working online.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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