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EXAMINING THE IMPACT OF COVID-19 ON EMPLOYEE PERFORMANCE AND FUTURE ASPIRATIONS IN THE CONTEXT OF DIGITAL ECONOMY

Abstract. *With the lockdowns caused by the Covid-19 pandemic, many organizations became forced to adopt and adapt to working from home. This paper is proposed to investigate the impact of home-working during the lockdowns on Arab employees' performance in Istanbul/Turkey and to analyze their preferences in terms of proceeding working from home or the workplace after the pandemic ends. The data were collected using an online semi-structured questionnaire. The Virtual snowball sampling was used to collect data, and the research sample included 255 Arab respondents residing in Istanbul/ Turkey. The explanatory factor analysis (EFA) technique was used to reduce the number of variables and the ordinal logistic regression analysis was used to analyze the effect of respondents' characteristics, socio-demographic, socio-economic variables on the performance of employees. In contrast, the multinomial logistic regression analysis was used to investigate the impact of the same factors on the target employees' preferences towards working place after working from home experience during the lockdowns. The results find that employees' age, their experience years, and the motivation by their colleagues and managers had a statistical influence on the performance. However, employees' gender, the number of children they have, motivation, family conditions, work environment, and the sector they work in had*

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no statistically significant influence on their performance during the lockdown. According to our results, parental status, experience years, colleagues' and managers' motivation, and work environment had a statistical influence on employees' preference towards working place. On the other side, the distance from employees' home to the workplace, their gender, the number of children, and age did not significantly impact working place preference.

***Keywords**: employee performance, working place preferences, teleworking, Covid-19.*

JEL Classification: J 24, J 81, M 54

1. Introduction

By the recent technological changes and modern communication tools, the business world began to witness new methods and mechanisms for working and performing tasks, and the previously adopted traditional conditions such as physical presence in the workplace and face-to-face communication began to be dispensable. These changes have led to an alteration in employees' aspirations and preferences for working conditions, especially those who work in specific sectors or specializations that enable them to implement their tasks from home with flexible conditions. However, even in the works that can be performed by the employees remotely, many organizations did not have the courage to move to this type of work, and did not adopt working from home or flexible working as a policy, and remained stuck in the traditional work methods that require a physical presence in the workplace. Latterly, during the lockdowns caused by the Covid-19 pandemic, the same organizations were forced to adopt and adapt working from home to continue their activities. "As the pandemic has progressed, the share of workers who can do all tasks from home has increased most in those occupations in which the pre-existing share was already high" (Adams-Prassl et al, 2020). Remote working where it is technically possible has become a de facto standard all over the world (Gheorghe and Dârdală, 2020). This mandatory worldwide experience must have created a change in employee performance, and contributed to creating employees' awareness towards a new policy of working under different conditions. Working from home may lead to an absence of oversight, lack of communication, difficulty of commitment, and inability to evaluate performance in some jobs, which negatively affects the performance of the employee and thus the productivity of the organization in which he/she works. On the contrary, the employee can find at home a comfortable environment that stimulates him/her to be more productive. Regardless of how the telework during lockdowns affected employees' performance, the same employees might have different preferences for working from home or office after working from home experience during the lockdowns.

2. Literature review

Employee Performance

Employee job performance refers to the level of productivity of an individual employee, relative to his or her peers, on several job-related behaviors and outcomes (Sarwar et al, 2015). In the literature, performance definitions were generally about an individual's carrying out a job or a mission according to pre-defined goals and conditions by the organization. For example, (Juliarti et al, 2018) defined performance as the result or the level of a person's success as a whole during a specific period in carrying out duties under a variety of sizes, such as standard work, targets, goals, or criteria that have been determined in advance and agreed together. For Oriane, (2018) performance was the ability of an employee to accomplish his or her mission based on the expectations of an organization.

Factors influencing the performance

Management support was one of the factors that had the most substantial impacts (direct and indirect) on job performance (Diamantidis and Chatzoglou, 2019). Likewise, (Smith and Bititci 2017) could establish a clear relationship between management practices, employee engagement, and performance. Motivation also impacted employee performance (Kazan and Gumus, 2013), and intrinsic motivation directly affected job performance (Diamantidis and Chatzoglou, 2019). Owoyele (2017) stated that motivation is considered a predictor of job performance, and employee motivation helps boost employee morale. In addition, the multiplier effects of employee motivation on employee performance impacts directly on employee performance. Putri et al, (2019) determined work environment as a factor that influences employee performance .According to (Juliarti et al, 2018 ; Diamantidis and Chatzoglou, 2019), the work environment positively impacted performance directly and/ or indirectly. That is why work environment conditions need to be improved to make it a more conducive working atmosphere so that it can provide a comfortable and positive impact on the development of employee performance (Chandra and Priyono, 2015). Kazan and Gumus, (2013) were particular and specified the physical working environment as a factor that impacts employee performance.

Working from home and employee performance

Nakrošienė et al. (2019) mentioned that self-reported productivity was related to a suitable working place at home. Also, it was related to the possibility of taking care of family members when teleworking. Following (Kazekami, 2020), telework was most efficient for improving work productivity if workers traveled more than an hour or commuted on highly crowded transportation during peak hours. Also, working from home has impacted the performance of employees who were forced to engage in traffic congestion at peak times to reach the workplace or those who resided in places relatively far from their place of work.

Who can work from home?

According to (Redmond and McGuinness, 2020) the likelihood of home-working could change according to parental status. Also, couples with children are more likely to work from home than lone couples. Adams-Prassl et al. (2020) stated that women could do fewer tasks from home, even within occupations and industries. Likewise, male workers are more likely to work from home (Redmond and McGuinness, 2020). Furthermore, women workers perceived fewer advantages of telework (Nakrošienė et al, 2019). For (Redmond and McGuinness, 2020; Yasenov 2020) older workers, are more likely to work from home. On the contrary**, (**Nakrošienė et al, 2019) found that older workers perceived fewer advantages of telework. The type of job also had an impact on the probability of working from home. Redmond and McGuinness, (2020) indicated that full-time employees have a higher probability of working from home, as do non-essential employees relative to essential employees.

Enforced homeworking during the pandemic

"Enforced work from home," as (Waizenegger et al, 2020) have called, can be a positive (or, at least, not so negative) solution for a large part of employees (Bolisani et al, 2020). However, working from home may imply longer and more stressful working hours, and it is not always a positive factor for employees: instead, it depends on the specific personal conditions. Telework is highly doable for some positions and employees but not for others (Fujii, 2020). Different employees in the same company may have different work environments and conditions at home like family size, marital status, technological and communication instruments, noise, and other distractions based on the location of the home (Radcliffe et al, 2020). Moreover, workers in industries and occupations less suitable for working from home are less productive than before the pandemic.

Factors affected employee teleworking performance during the lockdowns.

Bolisani et al. (2020) specified teleworking as a positive solution for the knowledge workers who can perform their duties in substantial autonomy**,** and **(**Bartsch et al, 2020) emphasized the positive impact of employee autonomy and indicated the mediating effects of employees' job autonomy and team cohesiveness. Fujii, (2020) attributed of telework role as an enhancer and a contributor to productivity to the autonomy in the direct work environment. The obtained autonomy during remote work had a positive role even before the pandemic. Also the higher perceived autonomy with remote working was a reason to increase job satisfaction. Thus, remote work had a positive relationship with job satisfaction**.** Bolisani et al. (2020) confirmed that technology is crucial for employee performance during working from home. Through technology, e-training and e-leadership can be applied, and (Wolor et al, 2020) proved a positive and significant impact of e-training and e-leadership practices on employee performance. Bartsch et al. (2020) stated the importance of leadership behavior to maintain employees' work performance in a virtual environment during crises. Work motivation also had a significant positive impact on employee performance (Wolor et al, 2020).

Teleworking can be an effective way to increase the levels of job satisfaction of employees. In this regard, (Gajendran and Harrison, 2006) emphasized a significant negative correlation between telecommuting and work-family conflict. Also, it was noted that a higher perceived work-life balance has a positive and significant impact on employee performance (Wolor et al, 2020). Despite the beneficial outcomes from teleworking for the work-family interface (Gajendran and Harrison, 2006), there is no "one-fits-all" solution. In addition, (Adams-Prassl et al, 2020; Redmond and McGuinness, 2020), found that gender and parental status affected performance and the likelihood of working from home.

Preferences of working place

According to the previously mentioned studies, the effects of home-working varied according to employees' characteristics, circumstances, and the nature of their work. The effects of the remote work experience were not limited to performance only but also affected their future preferences towards flexible work and working from home. Radcliffe et al, (2020) examined some positive and negative experiences of home working during the lockdown. According to their study, employees identified the ability to: take care of children, do housework and spend more time with their partners as positive aspects of working from home. On the other side, the blurred boundaries between work/home were identified as a main negative aspect. Each lack of equipment, space to work during home-working home, and missing interactions with colleagues were key negative aspects of working from home during the Covid-19 lockdown. Reducing commute times, spending more time with family, increasing productivity, and improving well-being were the main reasons employees identified for wanting to work from home more in the future.

3. Research methodology

Istanbul province was chosen as a study area of the research data collection was carried in Istanbul due to different reasons, such as Istanbul is considered the economic capital of Turkey, and Istanbul is hosting a large number of Arab immigrants. The target population represented Arab employees living in Istanbul province, Turkey. In the current study home-working performance, and working place preferences were represented as dependent variables. Whereas socio-economic and socio-demographic variables, work conditions variables were represented as independent variables. The research used both quantitative and qualitative approaches to measure the effect and significance of independent variables on dependent variables. The primary data were collected using an electronic survey during the lockdown from 01 to 17 June 2021.The participants in our study were 255 respondents from Arab countries. Only 213 participants completed all the questionnaire questions, and the remaining 42 questionnaires were uncompleted or unrelated to our target group. Therefore they were rejected. As a result, 213 questionnaires have been completed and analysed. The

questionnaire was written in English and later translated into the formal Arabic language to avoid any distortion.

We aimed in our study to explore the effect of the independent variables on the dependent variables. The five scale question was used to measure the change in performance from "1= Get much higher" to "5= Get much lower". In addition, the three scale question was used to investigate the working place preferences "1= home working," "2= mixed work," and "3= office working". The five Likert scales technique was conducted to measure the independent variables and to measure the weight of responses from "1=strongly disagree" to "5= strongly agree." As it was clarified in Table 1.

Table 1. Codes of Statments

Variable	Response to the statement	Code of statement
Performance change	Much lower Lower The same Higher Much higher	5 4 3 2 1
Working place preferences	Home-working Combination of both Working from Office	1 2 3
Socio- economic , socio-demographic and work conditions variables	Strongly agree Agree Uncertain Disagree Strongly disagree	5 4 3 2 1

Reliability refers to the degree of consistency and stability in an instrument and under a high degree of reliability, we can get the results after repeating measurements under similar conditions. There are different ways to evaluate reliability. The most common one is the Cronbach alpha coefficient which will be used in the study. Cronbach alpha coefficient was used in this study to measure variables' reliability. Cronbach alpha coefficient values range from zero to 1. Values less than 0.6 are considered unacceptable (Hair et al, 2014). Thus, the variables with reliability less than 0.60 have been removed from the analysis. Data analysis techniques include a set of techniques are applied to get results. Our data were analyzed after editing, coding, and cleaning processes by using the SPSS software version 25. In the current study, several work variables were used to explore their effects on performance and employees' preferences. With many independent variables (19 work variables), making inferences could be problematic and inaccurate. To avoid that, it was necessary to conduct the factor analysis FA procedure.The Explanatory factor analysis (EFA) technique was used to reduce the number of work variables. This technique includes two tests. Kaiser-Meyer-Olkin (KMO) test which is used to check the sample adequation. KMO value must be

greater than 0.6 to do factor analysis. The second test is Bartlett's sphericity which is used to check the availability of factor analysis procedure. The factor analysis can be used when Bartlett's sphericity test is less than 0.05 (Ibid).

To determine the effect of different variables on one ordinal variable Ordinal Multiple Regression (OMR) model can be used. In our study, the dependent variable was employee performance change during the lockdowns (equation 1). Whereas, to determine the effect of different variables on one dependent variable with more than two non-ordinal responses, the Multinomial Regression model can be used (equation 2). Here, the dependent variable was employees' preferences towards working place after the home-working experience.

The following equations were used to estimate the regression models,

$$Y\alpha = \beta 0 + \beta 1X1 + \beta 2X2 + \ldots + \varepsilon i \quad (1)$$

$$Y\text{ь} = \beta 0 + \beta 1X1 + \beta 2X2 + \cdots + \varepsilon i \quad (2)$$

- Yα = Employee performance change during the lockdowns
- Yь = Employees' preferences towards working place after the home-working experience.
- X1, X2 …… represent a group of socio-economic, socio-demographic, and work condition variables
- β1, β2 represent regression coefficients.
- εi denotes the error terms.

Based on the literature review above, the following hypotheses are proposed:

H1. Socio-economic and socio-demographic variables have a significant effect on performance during home-working.

H1a. Gender has a significant effect on home-working performance.

H1b. The number of children has a significant effect on home-working performance.

H1c. Years of experience have a significant effect on home-working performance.

H2. Socio-economic and socio-demographic variables have a significant influence on employee preferences with regards to working place.

H2a. Gender has a significant influence on place preferences.

H2b. The number of children has a significant effect on place preference.

H2c. Distance from home to working place has a significant influence on working place preference.

H2d. Years of experience have a significant effect on home-working performance

H3. Work conditions have a significant effect on employee performance

H3a. The physical work environment has a significant effect on employee performance

H3b. Staff motivation has a significant effect on employee performance

H4. Work conditions have a significant effect on place preference.

H4a. The physical work environment has a significant effect on place preference.

H4b. Staff motivation has a significant effect on place preference.

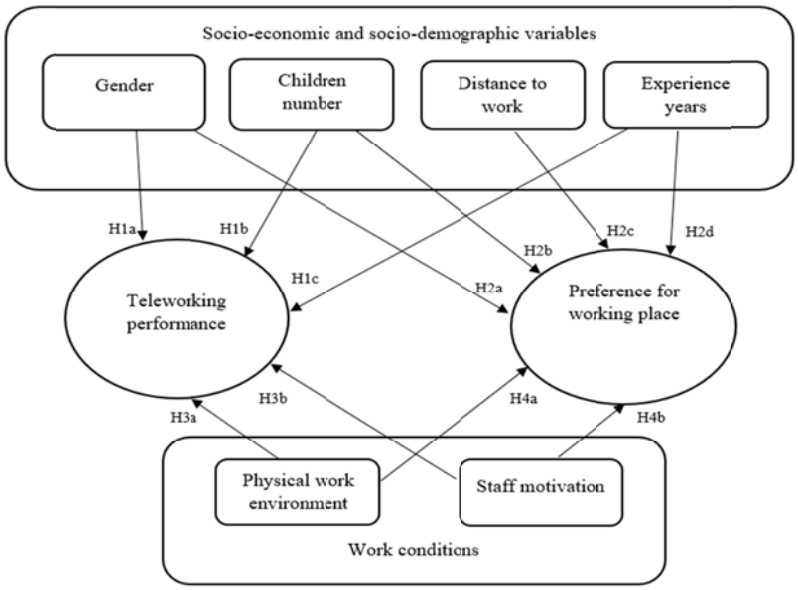

Figure 1. The conceptual framework of home-working performance and preference for working place

4. Results interpretation

Profile of Respondents

Descriptive statistics for respondents' socio-demographic and socio economic characteristics were given in Table 2. The questionnaire succeeded in attracting close numbers of both genders, with 118 males and 95 females. Most of our respondents were from the younger categories, where 78% of participants were from 18 to 37 years old, and that attributed to the fact that tele-workable positions are most common among young employees who have technological skills that enable them to implement their tasks remotely. As our respondents were young, they mostly did not have children (50.2%) or had less than two children (32%). For the experience years, our respondents varied between the low-experienced employees who had less than 4 experience years and the high-experienced with more than 12 experience years. Logically, the share of participants from the industrial sector was low (2.3%), given that very few positions in this sector can be worked remotely. Likewise, the health sector, which had the lowest percentage of participants from the service sectors. In contrast, other service sectors such as education, media and NGOs had the highest percentage among the sectors covered in the survey and the highest share was for the education sector, with 27% of respondents. According to our study, 38% of the employees did not witness any change in their performance, and 38.5% had a higher or much higher performance

during lockdown home-working. About working place preferences, the combination working (mixed working) is preferable as was stated by 53% of respondents.

Table 2. Socio- economic and socio- demographic variables

Socio-demographic variables	Sub-variables/ means	Number of respondents	Percent (%)
Gender	Male	118	55.4
	female	95	44.6
Age group	18 to 26	54	25.6
	26 to 31	67	31.8
	31 to 37	45	21.3
	More than 37	45	21.3
Children number	0	107	50.2
	From 1 to 2	68	32
	More than 2	37	17.3
Experience years	Less than 4	71	33.5
	From 4 to 7	39	18.4
	From 7 to 12	53	25
	More than 12	49	23.1
Sector	Commercial	28	13.1
	Industrial	5	2.3
	Services	43	20.2
	Health	2	0.9
	Educational	59	27.7
	Media	51	23.9
	NGO	25	11.7
Performance change	Performance is much higher	40	18.8
	Performance is higher	42	19.7
	Performance is the same	81	38
	Performance is lower	45	21.1
	Performance is much lower	5	2.3
Working place preferences	I prefer working from home	32	15
	I prefer mixed working	113	53.1
	I prefer office working	68	31.9

Results of the EFA and factors influencing performance during home-working

The family effect, social effect, physical work environment, and motivation were the main variables groups used to investigate their effects on employee performance. Every group is divided into sub-factors. In total, four groups with 19 factors were used. The factor analysis technique was used to investigate the most critical factors influencing employee performance during home working. Table 3 shows the results of EFA related to employee performance during working from home.

The results of Kaiser-Meyer-Olkin (KMO) or measure of sampling adequacy indicate that the data is suitable to apply factor analysis. Bartlett's test or test of sphericity indicates whether a given correlation matrix is an identity matrix or the variables are unrelated. The significance level must be less than 0.05 for these values, meaning a significant relationship among the variables. The value of Kaiser-Meyer-Olkin (KMO) was 0.783, greater than the recommended value of 0.6. Bartlett's test of sphericity was significant ($p = 0.000$). Based on these results, factor analysis is an appropriate method for our data. The current study consists of 213 respondents, so factor loadings of 0.40 and above are significant (Hair et al, 2014). The results show that out of 19 variables, five factors had eigenvalues greater than one, and their cumulative value indicates that six factors explain 61.35% of the total variance table (3).

The reliability or Cronbach's Alpha must have values greater than 0.60 to mean that they have acceptable reliability, whereas the values that are less than 0.60 will be deleted (Hair et al, 2014). The first factor labeled as social effect with Eigenvalue of 4.932 and Cronbach's alpha of 0.409 includes four variables: balance between family and work, a balance between social life and work, feeling comfortable, and routine problem. Cronbach's alpha of 0.409 less than 0.60; therefore, this factor was deleted for the following analysis. The second factor labeled as motivation with an Eigenvalue of 2.301 and Cronbach's alpha of 0.776 greater than 0.60 includes five variables as supportive manager, suitable income, job satisfaction, suitable work hours, and my colleagues are very helpful. The third factor labeled as family effect and the environment with Eigenvalue of 1.839 and Cronbach's alpha of 0.755 includes six variables: homeschooling, childcare, family around, noise, more work, and work stress. The fourth factor labeled was work environment with an Eigenvalue of 1.584 and Cronbach's alpha of 0.780 includes three variables: internet connection, equipment, and access to work resources. Finally, the fifth factor is labeled as work interaction with an Eigenvalue of 1.001, and no need for Cronbach's alpha includes a single variable as interaction with colleagues and staff Table 3.

Table 3. Factor analysis: Rotation of factor rotated component matrix

Work Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Social effect					
Home-working made a balance between family and work.	0.846				
Home-working made a balance with my social life.	0.812				
Home-working made me feel comfortable.	0.790				
I am facing a home routine problem.	-0.442				

Motivation					
Supportive manager		0.820			
Suitable income		0.755			
Job satisfaction		0.750			
Suitable work hours		0.650			
My colleagues are very helpful.		0.587			
Family effect					
I have had to provide homeschooling.			0.759		
I have had to provide childcare.			0.744		
Family around decrease performance			0.641		
More noise made by others			0.571		
I have more work to do at home.			0.526		
There is more work stress.			0.469		
Physical Work environment					
Internet connection is limited.				0.840	
The equipment is not enough.				0.737	
Access to workplace resources is limited.				0.647	
Colleagues and manager motivation /Staff motivation					
Interaction with colleagues and staff is limited.					0.832
Eigenvalue Total variance	4.932 22.57	2.301 34.08	1.839 43.49	1.584 52.07	1.001 59.39
Cronbach's Alpha	0.41	o.776	0.755	o.780	
Bartlett's Test of Sphericity	Chi-square (χ2) = 1376.031, df = 171, p < 0.05				
KMO	0.783				

The factors influencing the Performance Change

Table 4 shows the result of the Chi-square test to examine the validity of the parallelism assumption. The value of the Chi-square test (= 71.461, p>0.05) means that the parallelism assumption is validated and our data is suitable for the ordinal regression.

Table 4. The result of the Parallel Lines test

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	541.952			
General	477.131[b]	64.820c	57	.223

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

Table 5 also shows the model fitness information. This model examines the relationship between the dependent variables and independent variables. According to the results, (p<0.05) means a significant association between the dependent and independent variables. In other words, the ordinal logistic regression can be applied to our data.

Table 5. Model fitness information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	589.549			
Final	541.952	47.597	19	.000

Link function: Logit.

The results of ordinal regression were presented in table 6 the regression model expresses the effects of socio-economic and work factors on employee performance. Table 6 shows the Wald test results. The Wald test clarify if there is a significant relationship between the dependent and independent variables. If the significance value is less than 0.05, there is a significant relationship between the dependent and independent variables. According to the results, the variable of age statistically influenced the performance ($p<0.01$). When age increased, the performance increases. The experience years also had a statistical influence on the performance ($p<0.01$); when experience years increase, the performance decreases. Finally, (staff motivation) work interaction had a statistical influence on the performance ($p<0.01$); when interaction increases, the performance increases. However, the variables of gender, number of children, motivation, family effect, physical work environment, and the sector had not statistically significant influences on employee performance during the lockdown. Therefore, H1a, H1b, H3a hypothesis are rejected, while H1c, H3b, hypothesis are accepted.

Table 6. The results of the ordinal regression model

		Estimate	Std. Error	Wald	df	Sig.
Threshold	[PerformanceChange = 1.00]	-1.686	.582	8.391	1	.004*
	[PerformanceChange = 2.00]	-.510	.571	.799	1	.371
	[PerformanceChange = 3.00]	1.437	.578	6.187	1	.013*
	[PerformanceChange = 4.00]	4.337	.753	33.186	1	.000*
Location	Motivation	-.180	.137	1.728	1	.189
	Family effect	-.064	.140	.211	1	.646
	Physical Work environment	.031	.135	.053	1	.818
	Work interaction	.362	.135	7.222	1	.007*
	[Gender=1.00]	-.163	.283	.332	1	.564
	[Gender=2.00]	0[a]	.	.	0	.
	[Age=1.00]	-1.920	.681	7.963	1	.005*
	[Age=2.00]	-1.358	.589	5.307	1	.021**
	[Age=3.00]	-1.503	.473	10.116	1	.001*
	[Age=4.00]	0[a]	.	.	0	.
	[ChildrenNumber=1.00]	.141	.438	.104	1	.747
	[ChildrenNumber=2.00]	.620	.457	1.839	1	.175
	[ChildrenNumber=3.00]	0[a]	.	.	0	.

	[ExperienceYears=1.00]	2.300	.600	14.705	1	.000*
	[ExperienceYears=2.00]	2.658	.613	18.775	1	.000*
	[ExperienceYears=3.00]	1.070	.467	5.237	1	.022**
	[ExperienceYears=4.00]	0[a]	.	.	0	.
	[Sector=1.00]	.019	.519	.001	1	.971
	[Sector=2.00]	-.646	.944	.468	1	.494
	[Sector=3.00]	-.427	.480	.792	1	.373
	[Sector=4.00]	.106	1.393	.006	1	.940
	[Sector=5.00]	-.772	.465	2.761	1	.097
	[Sector=6.00]	-.300	.461	.422	1	.516
	[Sector=7.00]	0[a]	.	.	0	.

*, **, *** mean that significant difference at 1%, 5%, and 10%, respectively

The factors influencing the preference of working place

Table 7 shows the result of the Nagelkerke test to examine the variation in the dependent variable. The chi-square test value (0.217) means the variables in the model explained 21.7% from the variation in the dependent variable. Table 7 also shows the model fitness information. This model examines the relationship between the dependent variable and independent variables. According to the results ($p<0.05$) which means that there is a significant association between the dependent variable and independent variables. In other words, the multinomial logistic regression can be applied to our data.

Table 7. Model fitness information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	393.247			
Final	351.895	41.352	26	.029**
Nagelkerke	.217			

The results of multinomial logistic regression were presented in Table 8 below. The regression model expresses the effects of socio-economic, physical work environment, and staff motivation on the working place preference. Table 8 shows the Wald test results. The Wald test clarify if there is a significant relationship between the dependent and independent variables. If the significance value is less than 0.05, there is a significant relationship between the dependent and independent variables. Here, we compare the respondents' preferences as following: firstly, comparing respondents' preferences among home working and office working. Secondly, comparing respondents' preferences among partly work and office working. First, the preferences between home-working and office working, according to the results, four variables out of eight variables had a statistically effect on the working place preferences. In general, the variable of parental status had a statistical influence on the working place preference ($p<0.10$). Having children makes employees prefer home-working. The years of experience

also had a statistical influence on working place preference ($p<0.05$). If work experience increases, employees prefer to work from the office. Staff motivation had a statistical influence on the working place preference ($p<0.05$), and the lack of interaction lead employees to prefer office working. Finally, physical work environment had statistically influenced the working place preference ($p<0.05$). The limitation of equipment and resources during home-working makes employees prefer to work from the office.

Secondly, the preferences between partly work and office working, according to the results only one variable (physical work environment) had statistically influenced the working place preference ($p<0.05$). The physical work environment encourages respondents to prefer office working. However, the variables of distance to work, gender, number of children, and age had no statistically significant influences on working place preference.

According to the findings, gender, number of children, distance from work had no statistically significant associations with working place preference. Therefore, hypothesis H2a, H2b and H2c are rejected. About work condition variables: physical work environment and staff motivation, they had statistically significant associations on working place preference. Therefore, hypothesis, H4a, and H4b are accepted.

Table 8. The results of the multinomial regression model

Working place preference		B	Std. Error	Wald	df	Sig.	Exp(B)
Homeworking	Intercept	2.010	1.558	1.664	1	.197	
	Staff motivation	-.569	.252	5.100	1	.024**	.566
	Physical work environment	-.646	.266	5.923	1	.015**	.524
	distance	.007	.009	.613	1	.434	1.007
	[Gender=1.00]	-.676	.521	1.685	1	.194	.508
	[Gender=2.00]	0[b]	.	.	0	.	.
	[ChildrenNumber=1.00]	-1.278	1.308	.954	1	.329	.279
	[ChildrenNumber=2.00]	.680	.857	.630	1	.427	1.974
	[ChildrenNumber=3.00]	0[b]	.	.	0	.	.
	[HaveChildren=1.00]	-2.243	1.270	3.117	1	.077***	.106
	[HaveChildren=2.00]	0[b]	.	.	0	.	.
	[Age=1.00]	2.057	1.354	2.308	1	.129	7.824
	[Age=2.00]	.554	1.169	.225	1	.635	1.740
	[Age=3.00]	-.461	.841	.300	1	.584	.631
	[Age=4.00]	0[b]	.	.	0	.	.
	[ExperienceYears=1.00]	-3.150	1.214	6.731	1	.009*	.043
	[ExperienceYears=2.00]	-2.459	1.224	4.036	1	.045**	.086
	[ExperienceYears=3.00]	-1.502	.880	2.909	1	.088***	.223
	[ExperienceYears=4.00]	0[b]	.	.	0	.	.

Partly	Intercept	.839	.871	.928	1	.335	
	Staff motivation	-.257	.178	2.088	1	.148	.773
	Physical work environment	-.370	.173	4.567	1	.033**	.690
	distance	.010	.006	2.682	1	.101	1.010
	[Gender=1.00]	-.098	.362	.073	1	.787	.907
	[Gender=2.00]	0[b]	.	.	0	.	.
	[ChildrenNumber=1.00]	.133	.626	.045	1	.831	1.143
	[ChildrenNumber=2.00]	-.763	.591	1.670	1	.196	.466
	[ChildrenNumber=3.00]	0[b]	.	.	0	.	.
	[HaveChildren=1.00]	-.075	.558	.018	1	.893	.928
	[HaveChildren=2.00]	0[b]	.	.	0	.	.
	[Age=1.00]	.412	.859	.230	1	.631	1.510
	[Age=2.00]	.224	.741	.092	1	.762	1.252
	[Age=3.00]	-.716	.585	1.497	1	.221	.489
	[Age=4.00]	0[b]	.	.	0	.	.
	[ExperienceYears=1.00]	-1.054	.743	2.012	1	.156	.349
	[ExperienceYears=2.00]	-.807	.762	1.121	1	.290	.446
	[ExperienceYears=3.00]	-.380	.578	.432	1	.511	.684
	[ExperienceYears=4.00]	0[b]	.	.	0	.	.

a. The reference category is: office working.
b. This parameter is set to zero because it is redundant.
*, **, *** mean that significant difference at 1%, 5%, and 10%, respectively.

4. Discussions

Our study finds that gender had no statistically significant influence on employee performance during the lockdown. This was not consistent with the former research where (Adams-Prassl et al, 2020) stated that women could do fewer tasks from home, even within occupations and industries. Surprisingly, our study finds that motivation factors which included: manager support, Suitable income, job satisfaction, fair work hours, and colleague collaboration, have no statistically significant impact on employee performance during the lockdown. On the contrary, in the literature, motivation had an impact on employee performance (Kazan and Gumus, 2013), and intrinsic motivation directly affected job performance (Diamantidis and Chatzoglou, 2019). Furthermore, Owoyele (2017) supported the presence of an impact of motivation on employee performance and indicated that motivation is considered a predictor of job performance. In addition, the multiplier effects of employee motivation on employee performance are that it impacts directly on employee performance. However, we found that motivation had partly a statistically significant influence on employee performance. In other words, colleague and management motivation which included (manager support and colleagues' collaboration) was, in particular, statically impacting employee performance. This result is supported by many studies in the literature where (Kazan and Gumus, 2013) mentioned that administration had a statistically impact

on employee performance. According to (Diamantidis & Chatzoglou, 2019), management support was one of the factors that had the strongest impacts (directly and indirectly) on job performance. Also, (Smith and Bititci, 2017) could establish a clear relationship between management practices, employee engagement, and performance. And for (Radcliffe et al, 2020), missing interactions with colleagues was a key negative aspect of working from home during the Covid-19 lockdown.

Incompatible with the previous studies, our findings indicate that the physical work environment (which was represented by obtaining Internet connection, equipment, and other resources in our study) had no statistically significant impact on employee performance. In comparison, (Kazan and Gumus 2013) specified that the physical working environment as a factor has an impact on employee performance. Also, (Sitohang, 2020) found a strong enough influence of the work environment on employee performance. In addition, (Putri et al, 2019) determined the work environment as a factor that influences employee performance. And for (Juliarti et al, 2018; Diamantidis and Chatzoglou, 2019) work environment had a positive impact on performance directly and/ or indirectly. Juliarti et al, (2018) indicated that work environment proved to be a significant positive effect on job satisfaction and job satisfaction proved to be a significant positive effect on employee performance, and work environment proved positive and significant effect employee performance (Juliarti et al, 2018). Thus our study is not in agreement with the previously conducted research in the area.

According to our findings, age and years of experience variables had a significant effect on employee performance. Our study found that the decline in performance is less when employees are older, but it was higher when employees had more years of experience. This result can be interpreted that when employees have more years of experience and work from the office, they would probably adapt to working under specific conditions. The absence of those conditions may impact their performance. Despite (Nakrošienė et al, 2019) mentioned that self-reported productivity was related to the possibility to take care of family members when teleworking, our study finds that the family effect had no statistically significant influence on employee performance during the lockdown. Likewise, respondents' children number had no statistically significant influence on employee performance throughout working from home during the lockdown. Our study also found that the working sector had no statistically significant influence on employee performance during the lockdown.

Based on the study and analysis of the data, the variables of parental status, experience years, colleagues' and managers' motivation, and physical work environment had a statistical influence on the working place preference. However, the variables of distance from work, gender, number of children, and age had not a statistically significant influence on the working place preference. According to (Adams-Prassl et al, 2020; Redmond and McGuinness, 2020), the likelihood of males' remotely working was higher. Otherwise, gender had no statistically significant influence on the preference of working place in our results. However,

our results indicate that parental status and couples with children more prefer to work from home. This finding is in agreement with (Redmond and McGuinness, 2020), which highlighted that the likelihood of working from home could also change according to parental status and found that couples with children are more likely to work from home compared to lone couples. This can be attributed to employees' ability to spend more time with their children. In addition, (Radcliffe et al, 2020) emphasized that spending more time with family was one of the main reasons employees identified for wanting to work from home more in the future.

Although the parental status had an impact on the employees for the workplace, the number of children had no impact on the employees' preference for the place of working, according to our study. Other studies researched the effect of age on the likelihood of working from home and found that older workers were more likely to work from home (Redmond and McGuinness, 2020; Yasenov 2020). By the other side, (Nakrošienė et al, 2019) found that older workers perceived less advantages of telework. Regarding our research, there is no significant effect of age on employee working place preferences. On the contrary, experience years significantly affect employees' preferences for the working location, and our results indicate that when work experience increases, employees prefer to work from the office. This can be explained by the fact that employees with long years of experience used to work under specific conditions. The absence of those conditions may negatively affect employees' willingness to work from home.

According to our results, the physical work environment (obtaining Internet connection, equipment, and other resources) has no statistical influence on employee performance, never the less it has a statistical influence on employee working place preference. And this result was in line with (Radcliffe et al, 2020) when determined the lack of equipment as a negative aspect of working from home during the Covid-19 lockdown. Likewise, colleagues' and managers' motivation factor has a statistical influence on working place preference. Furthermore, the lack of motivation by colleagues and supervisors leads employees to prefer office working.

Even though participants in our study spent on average more than 84 minutes per day to and from work, distance from home to work had no statistically significant effect on working place preference. Nevertheless, 37.5% of the respondents who preferred to work from home determined the time saving as a reason to prefer working from home.

5. Conclusions

Working from home started to gain more interest after the ongoing health and economic crisis related to the Covid-19 pandemic. Because of the required physical distancing measures, many firms were forced to introduce telework on a large scale. This paper aimed to examine the impact of working from home during the lockdowns on employees' performance following employees' different work conditions, socio-demographic, and socio-economic characteristics. Also, this paper was proposed to investigate the impact of different work conditions, socio-

demographic and socio-economic characteristics on the employers' preferences towards working location. According with the finding, this research will contribute significantly to assisting the organizations and employers (governmental or private) in understanding the impact of the home-working policy during the lockdown on employee performance and understand employees' future aspirations preferences towards the appropriate working place. This helps employers reformulate work, employment, and selection policies where the nature of the job fits employees' backgrounds and characteristics. In addition, the finding of this research will help organizations that adopt remote work mainly in understanding the factors that affect employee performance. The essential contribution of this study lies in its focusing not only on researching employee performance (employers and business owners), but also on investigating employees' aspirations and preferences regarding the appropriate working place). Thus, this study represents a link between employers and employees. The original contribution of this study lies in its data which was collected according to the changes caused by Covid-19 and the conditions imposed by the lockdown. We can conclude that this analysis is useful for policy makers, entrepreneurs and economic analysts (Furtună et al, 2013) to investigate and evaluate the impact of home-working during the lockdowns.

Research Limitation

The generalizability of the results is limited by: the specified target group, as this study targeted Arab employees in Istanbul province. Also, it is restricted by and the limited covered sectors. In addition, our data were collected during Turkey's third lockdown by a questionnaire conducted according to the changes caused by Covid-19 and the conditions imposed by the lockdowns. The data's reliability can be impacted by the method depended for measuring the employee performance, which was based on the self-reported evaluation. In addition, the data are liable to be biased regarding the future preference towards the working place, as the data were collected during the third lockdown in Istanbul province under the pressures of the lockdown procedures and the consequent pressure of staying home.

REFERENCES

[1] **Adams-Prassl, A., Boneva, T., Golin, M., Rauh, C. (2020),** ***Work that Can Be Done from Home: Evidence on Variation within and across Occupations and Industries***. *IZA Discussion Paper*, 13374. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3631584;

[2] **Bartsch, S., Weber, E., Büttgen, M., Huber, A. (2020**), ***Leadership Matters in Crisis-induced Digital Transformation: How to Lead Service Employees Effectively during the COVID-19 Pandemic.*** *Journal of Service Management*, *32*(1), 71–85. https://doi.org/10.1108/JOSM-05-2020-0160;

[3] **Bolisani, E., Scarso, E., Ipsen, C., Kirchner, K., Hansen, J.P. (2020**), ***Working from Home during COVID-19 Pandemic: Lessons Learned and Issues.*** *Management and Marketing*, *15*(s1). https://doi.org/10.2478/mmcks-2020-0027;

[4] **Chandra, T., Priyono, P. (2015),** ***The Influence of Leadership Styles, Work Environment and Job Satisfaction of Employee Performance***. *International Education Studies*, *9*(1). https://doi.org/10.5539/ies.v9n1p131;
[5] **Diamantidis, A. D., Chatzoglou, P. (2019),** ***Factors Affecting Employee Performance: An Empirical Approach***. *International Journal of Productivity and Performance Management*, *68*(1). https://doi.org/10.1108/IJPPM-01-2018-0012;
[6] **Fujii, K. (2020),** ***Workplace Motivation: Addressing Telework as a Mechanism for Maintaining Employee Productivity.*** *Portland State University*. https://core.ac.uk/download/pdf/326033025.pdf;
[7] **Furtună, T. F, Reveiu, A., Dârdală, M., Kanala, R. (2013),** ***Analysing the Spatial Concentration of Economic Activities: A Case Study of Energy Industry in Romania.*** *Economic Computation and Economic Cybernetics Studies and Research*, 47(4), 35-52, ISSN 0424 – 267 X; *ASE Publishing;*
[8] **Gajendran, R. S., Harrison, D. A. (2006),** ***The Good, the Bad, and the Unknown about Telecommuting: Meta-Analysis of Individual Consequences and Mechanisms of Distributed Work.*** *Academy of Management 2006 Annual Meeting: Knowledge, Action and the Public Concern, AOM 2006*. https://doi.org/10.5465/ambpp.2006.27161834;
[9] **Gheorghe, M., Dârdală, M. (2020),** ***An Automated Recruiting Model for an Optimal Team of Software Engineers from Global Freelancing Platforms***; *Economic Computation and Economic Cybernetics Studies and Research,* 54(4), 43-54, ISSN 0424 – 267 X; DOI:10.24818/18423264/54.4.20.03;
[10] **Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. (2014)**, ***Multivariate Data Analysis.*** *7th Edition, Pearson Education, Upper Saddle River*. https://www.scirp.org/(S(czeh2tfqyw2orz553k1w0r45))/reference/referencespapers.aspx?referenceid=2190475;
[11] **Juliarti, P.A.D., Agung, A.A.P., Sudja, I.N. (2018),** ***Effect of Compensation and Work Environment on Employee Performance with Employee Job Satisfaction as an Intervening Variable***. *International Journal of Contemporary Research and Review*, *9*(03). https://doi.org/10.15520/ijcrr/2018/9/03/460;
[12] **Kazan, H., Gumus, S. (2013),** ***Measurement of Employees' Performance: A State Bank Application***. *International Review of Management and Business Research Vol. 2 Issue 2;* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2377909;
[13] **Kazekami, S. (2020),** ***Mechanisms to Improve Labor Productivity by Performing Telework.*** *Telecommunications Policy*, *44*(2). https://doi.org/10.1016/j.telpol.2019.101868;
[14] **Nakrošienė, A., Bučiūnienė, I., Goštautaitė, B. (2019**), ***Working from Home: Characteristics and Outcomes of Telework.*** *International Journal of Manpower*, *40*(1). https://doi.org/10.1108/IJM-07-2017-0172;
[15] **Oriane, P. (2018),** ***The Difference between Employee Performance and Productivity*** https://www.employeeconnect.com/blog/difference-employee-performance-productivity/.

[16] **Owoyele, S. (2017),** ***Factors Influencing Employee Motivation and Its Impact on Employee Performance.*** *Theseus*, 1–66. http://urn.fi/URN:NBN:fi:amk-2017120519897;
[17] **Putri, E. M., Ekowati, V. M., Supriyanto, A. S., Mukaffi, Z. (2019)**, ***The Effect of Work Environment on Employee Performance through Work Discipline.*** *International Journal of Research - GRANTHAALAYAH*, *7*(4), 132–140. https://doi.org/10.29121/granthaalayah.v7.i4.2019.882;
[18] **Radcliffe, J., Teh, B. H., Hooi, P. C., Loh, Y. L., Ong, T. S., Hong, Y. H., Chung, H., Seo, H., Forbes, S., Birkett, H., Pennington, A., Stanford, J., Wapshott, R., Mallett, O., Bloom, N., Liang, J., Roberts, J., Ying, Z. J., Noor, N. M., Stachová, K. (2020),** ***Working from Home during the Covid-19 Lockdown: Changing Preferences and the Future of Work***. *The Academy of Management Review*, *4*(2).
https://kar.kent.ac.uk/83896/1/Working_from_home_COVID-19_lockdown.pdf;
[19] **Redmond, P., McGuinness, S. (2020),** ***Who Can Work from Home in Ireland?*** *Dublin, Ireland: Economic and Social Research Institute*, 87, 17. http://dx.doi.org/10.26504/sustat87%0Ahttps://www.esri.ie/system/files/publications/SUSTAT87.pdf%0Ahttps://www.voced.edu.au/content/ngv:86541;
[20] **Smith, M., Bititci, U. S. (2017),** ***Interplay between Performance Measurement and Management, Employee Engagement and Performance***. *International Journal of Operations and Production Management*, *37*(9). https://doi.org/10.1108/IJOPM-06-2015-0313;
[21] **Sarwar, A., Ketavan, C., Butt, N. S. (2015**), ***Impact of eLearning Perception and eLearning Advantages on eLearning for Stress Management (Mediating Role of eLearning for Corporate Training).*** *Pakistan Journal of Statistics and Operation Research, 11(2), 241- 258.* http://www.pjsor.com/index.php/pjsor/article/view/1088;
[22] **Sitohang N., (2020),** ***Effect of Work Environment to Employee Performance in pt abadi motor Indonesia***, *International Journal of Research – GRANTHAALAYAH*, Vol.8 (Iss.2), http://oaji.net/articles/2020/1330-1583049341.pdf ;
[23] **Waizenegger, L., McKenna, B., Cai, W., Bendz, T. (2020),** ***An Affordance Perspective of Team Collaboration and Enforced Working from Home during COVID-19.*** *European Journal of Information Systems*, *29*(4). https://doi.org/10.1080/0960085X.2020.1800417;
[24] **Wolor, C. W., Solikhah, S., Fidhyallah, N. F., Lestari, D. P. (2020),** ***Effectiveness of E-Training, E-Leadership, and Work Life Balance on Employee Performance during COVID-19***. *Journal of Asian Finance, Economics and Business*, *7*(10). https://doi.org/10.13106/jafeb.2020.vol7.no10.443;
[25] **Yasenov, V. (2020),** ***Who Can Work from Home?*** *Discussion Paper*, No.20-05, https://doi.org/10.31219/osf.io/89k47.