

THE IMPACT OF HOME OFFICE ON WORK FACTORS THAT AFFECT PRODUCTIVITY, STRESS LEVELS AND WORK / LIFE BALANCE AMONG EMPLOYEES

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Abstract: The pandemic period developed new work behaviors. Home office and teleworking took the place of office work. This period affected certain organizational activities and developed new opportunities to work. Teleworkers are affected by several factors during this pandemic period. This paper presents the dataset of a survey on workplace human resource home office strategies applied by companies and perceived by employees from the west region in Romania during the COVID-19 pandemic. The scope is to understand the changing mentality pre and post COVID-19 so that companies can adapt to ensure both the physical and mentally health of their employees. It is believed that this is not just a stage, but the beginning of the new normality.

Keywords: Home office, teleworking, performance, mentally health, workplace, productivity.

1 INTRODUCTION

Coronavirus (COVID-19) has led to the development of other behaviors for individuals.

These behaviors are found both at work and in the places where they live. Many companies have used telework to continue their business. Under these conditions, a series of factors appeared

that affected the productivity of the industries, but also the level of motivation and interaction of the employees. (Belzunegui-Eraso and Erro-Garcés, 2020). Many organizations have begun to offer a new way of working to adapt these changes effectively using work from home (Syed Ghulam et al., 2019; Irawanto, et al., 2021). The Covid-19 pandemic has forced companies to use different digital methods to better enhance its communications customers, suppliers, and employees (Sulaiman, et al., 2020).

The current global crisis may be a singular event, but the aftermath of the pandemic is directing us to a new model of everyday life, offering us new opportunities in both our personal and professional life, developing such the concept of a “new reality” (Carnevale et al., 2020). This “new reality” has side effects through the overlap between private life and work, which leads to a greater contamination of personal concerns and work duties. This overlap triggers a physical and emotional exhaustion of teleworkers at home (Sarfraz et al., 2020; Palumbo, 2020).

Home-office has been the main means of communication during this global crisis, using widely available software such as Zoom, Google Meets and Microsoft Teams to ensure a strong relation between all stakeholders involved in companies (Cioca and Cioca, 2005). Furthermore, a study conducted by OrangeFiery (“Leadership Communications during COVID-19: A Survey of US Organizations”) illustrated the importance of communication during these times, some key elements in fulfilling employees’ expectations being honesty, transparency, and job security. Another aspect was adoption of an effective e-leadership by companies. Simultaneously with the worldwide health crisis, companies needed to learn about telework and e-leadership. For companies with effective e-leadership, they saw teleworking as an opportunity (Contreras, et al. 2020).

The scope of this paper is to better understand the concept of remote working and

the needs that employees must ensure them a secure job, which is essential to ensure employee’s productivity (Sulaiman, et al., 2020).

Therefore, the research objective is to understand the changing mentality pre and post COVID-19 so that companies can adapt to ensure both the physical and mentally health of their employees. Accordingly, *three research questions* were determined to better interpret the impact of home office (HO) on a series of different dimensions:

Q1. How did home office impact the work/life balance of employees during the COVID-19 pandemic?

Q2. How did home office impact the stress level of employees during the COVID-19 pandemic?

Q3. How did home office impact productivity of employees during the COVID-19 pandemic?

2 LITERATURE REVIEW

The practice of home-office has had an increased interest during the COVID-19 pandemic, as many countries have recommended or even imposed the stay-at-home practice on companies to protect the population from being infected with the new virus. “The organization should enable workers to work from their own home wherever possible, as this is one of the most effective ways of managing the risks related to the pandemic” (ISO/PAS 45005:2020).

Negative side effects from home-office come in a series of disadvantages, such as being susceptible to numerous distractions during work hours, being detached from the company community or the lack of control that the management can have upon the employee. (Kaushik and Guleria, 2020).

Another study points out that the disadvantages of telework (work from home) are associated with a number of different factors, such as social isolation, the need of developing a different type of management, the destabilization of the work-life balance and, if not

provided by the company, high costs for the employees in order to build a setup for their homeoffice are (Adam et al., 2021) Furthermore, it has determined a need among employees to develop certain soft skills, for instance self-motivation and time management competences.

Working from home is associated with invading the individual's life, having negative effects on managing their time between family and work activities. It is also perceived that stay-at-home policies have a negative impact on the effectiveness of communication and collaboration with clients, supervisors, and colleagues (Păcurariu et al., 2021). Another challenge that comes with remote working is procrastination. It is found that employees have a hard time staying productive during working hours, while they are at home, surrounded with numerous distractions. From a psychological point of view, stay at home workers may suffer from different conditions, such as loneliness, due to the lack of social interactions that they were previously experiencing during regular work (Wang, et al., 2021).

Work effectiveness and well-being of the employees can be improved or disimproved by a series of characteristics, such as autonomy at the workplace, different methods of monitoring from management and supervisors over work tasks, the amount of workload associated with the job and lastly but not least social support which, if handled correctly, can diminish the effect of loneliness that can be experienced by work from home employees (Cioca et al., 2019; Wang, et al., 2021)

1. The home-office approach should not be limited only to the aspect of protecting people from getting infected with the new coronavirus. Remote working has also been associated with several positive effects, such as productivity gains, helps with the management of household activities and helps save time daily by eliminating the need of commuting to and from office. Also, due to the current crisis, companies can experiment with work from home policies,

gaining tremendous amount of experience, which would not have been possible if the coronavirus pandemic would not have happened (Sarfraz et al., 2020; Barrero, et al., 2021).

More positive aspects of the home from office approach come in the form of creating a sense of fellowship and friendship among department members, increase of organizational flexibility and enables social distancing from a health wellbeing point of view during a pandemic (Ivascu, 2020; Adam et al., 2021).

Opening the workplace after the COVID-19 pandemic must take under consideration a series of different factors, such as worker factors, workplace factors and societal factors (Shaw, et al., 2020).

It is recommended that companies determine plans and strategies regarding the workplace reopening based on the individual worker attitudes and behaviors, and it should also prioritize the needs of employees that are disadvantaged.

2. The duration of the COVID-19 pandemic is still uncertain, but it has already passed the duration of the SARS-2003 global crisis. The long duration of the pandemic determined companies to make changes in managing their human resources, having to put a bigger emphasis on factors such as their mental health, mental wellbeing and overall, general health Carroll et al., "Normalising the "new normal": Changing tech-driven work practices under pandemic time pressure." *International Journal of Information Management*) Not only that, but the current global pandemic has also determined companies to completely redesign their business model, moving to a more digitalized approach, offering their employees new IT systems, the ability to work from home while providing them with all the required equipment. All these changes combined with the uncertain long duration of the current crisis are creating and directing us to the so called "new normal" (Carroll and Kieran, 2020).

3 METHODOLOGY

The methodology used in this research paper is a primary data collection approach, consisting in a survey that was addressed to Romanian employees that are currently working in a multinational company in the west region of the county and work/have worked in a teleworking (home office) environment.

The main method used is survey. It was used as a tool the online questionnaires, divided into three sections. The questionnaire was applied online via Google Form. The processing of the primary data obtained was performed by statistical software.

The first section has tackled the eligibility of the form’s respondents. They have been asked to answer to three yes/no questions to determine if they fit the criteria indicated by us to complete the survey. Sampling questions were if they work/have worked in a home office method if they are currently employed in a multinational in the west region of Romania and if they give their agreement to participate to our research.

The second section consists in multiple choice questions about our respondents, such as their gender and age. This helps us create a model based on the previously mentioned

information and future answers given in section three.

The last section consists of the main part of our survey. It resembles eight questions, ranging between yes/no answers to multiple choice answers. We have also included questions that are required to give answers in ordinal scales, interval scales ratio scales and Likert scales.

4 RESULTS AND DISCCUSION

The questionnaire recorded 75 responses, of which 65 were validated. It is a pilot study that will be expanded beginning in the fall of 2021. The respondents had to answer three different eligibility questions to participate in our survey. All the respondents are people who work or have worked in a home office regime, in the West region of Romania.

Below, we have calculated the means of the respondents’ satisfaction regarding HO, 1 being highly satisfied and 5 being highly dissatisfied, Figure 1. As a result, the older age groups have been more satisfied about the HO, while the younger age groups have been less satisfied. The result might be since the younger generations value socializing and engaging with new people, as opposed to older generations which are close to the end of their career.

Satisfaction of HO depending on gender and age

age	gender										
	Female					Male					
	18 - 24 years	25 - 31 years	32- 40 years	40 - 50 years	51 + years	18 - 24 years	25 - 31 years	32- 40 years	40 - 50 years	51 + years	
Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	
satisfaction_HO	.	2	2	2	2	1	3	1	3	2	2

Figure 1. Satisfaction of HO depending on gender and age

Employees are overall happy with the HO regime, the most positive response being among women 51+ years, and the least positive

response being amongst men between 32-40 years old, Figure 2.

age	gender										
	Female					Male					
	18 - 24 years	25 - 31 years	32- 40 years	40 - 50 years	51 + years	18 - 24 years	25 - 31 years	32- 40 years	40 - 50 years	51 + years	
Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	
HO_days	.	2	3	2	2	4	3	2	3	2	4

Figure 2. Ideal HO days per week depending on gender and age

However, while being asked what their ideal HO regime is, having to choose between: Exclusively HO, Going Exclusively to the office or having a mix regime (both HO and going to the office), most of our respondents opted for the mix regime, while only 4 respondents opting for the “going to the office” choice, Figure 3. As a parallel, people with a mean of 1 in HO satisfaction wished to work in an exclusively HO regime, respondents with a mean of 2 on HO satisfaction wished to work in a mixed regime, and the employees that were dissatisfied of the HO regime (mean of 4) wanted to work strictly in the office.

ideal_HO_regime	satisfaction_HO	
	Count	Mean
exclusively HO regime	12	1
Going into the office	4	4
Mix regime (HO and going into the office)	47	2

Figure 3. Matrix ideal HO regime & satisfaction of HO

As our research questions explores the influence of HO on work / life balance, stress levels and Productivity, we have chosen a series of factors that can be related to our subject, Figure 4 and Figure 5.

The most important factors regarding HO working factors chosen by our respondents were mental health, flexibility and understanding from superiors, while the least significant factors were being the providing of a work computer by the company and socialising with fellow employees.

However, because the mean of all the factors listed above is between 1-2 (Highly important and somehow important), all the factors considered above should be taken into consideration when talking about the importance of HO working factors.

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
imp_socialising	63	1	4	1.63	.789	.623
imp_communication	63	1	3	1.27	.545	.297
imp_understandig_from_superior	63	1	3	1.25	.474	.225
imp_mental_health	63	1	3	1.21	.446	.199
imp_developement	63	1	4	1.57	.712	.507
imp_opportunities	63	1	3	1.51	.619	.383
imp_salary	63	1	5	1.60	.943	.888
imp_computer	63	1	5	1.78	1.099	1.208
imp_flexible	63	1	3	1.24	.499	.249
Valid N (listwise)	63					

Figure 4. The importance of HO working factors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
afect_socialising	63	1	5	3.70	1.240	1.537
afect_communication	63	1	5	3.27	1.035	1.071
afect_understandig_from _superior	63	1	5	2.54	.895	.801
afect_mental_health	63	1	5	3.21	1.095	1.199
afect_development	63	1	5	3.17	.890	.792
afect_opportunities	63	1	5	3.08	.938	.881
afect_salary	63	1	5	3.22	.888	.789
afect_computer	63	1	5	2.25	1.164	1.354
afect_flexible	63	1	5	2.38	1.069	1.143
Valid N (listwise)	63					

Figure 5. The afectance of HO working factors

4.1 What influences Productivity?

When asked about the influence of HO on working factors, the result shows us that the most negatively affected factor has been the workspace socialising, while the most positive ones being flexibility, understanding from superiors and the fact that the companies were offering a working computer.

Next, we have studied which of the previously affected working factors have a direct influence on our three main themes: Productivity, Stress Levels and Work-Life Balance. The answer to this question helps us make better human resource management decisions, depending on the factors that we wish to improve in our working team, the factors being Productivity, Stress Levels and Work-Life Balance, Figure 6 and Figure 7.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.569	.537		2.924	.005
	afect_salary	.405	.161	.307	2.518	.014

a. Dependent Variable: afect_productivity

Figure 6. Linear regression: Effect of salary affected on productivity

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.694	.344		10.742	.000
	imp_development	-.523	.200	-.318	-2.619	.011

a. Dependent Variable: affect_productivity

Figure 7. Linear regression: Effect of development opportunities affected on productivity

After analysing every of the affected factors through a linear regression with the effect of productivity, we have found out that if the salary was affected in a negative way, the productivity levels have raised. This is probably because employees feel the pressure of the global pandemic and the possibility of them losing their jobs, and a decrease in the salary may motivate them to work harder to secure their job. However, we believe that reducing the salary should not be used as a mean of improving productivity.

4.2 What influences stress levels?

When doing a linear regression between the stress levels and all the HO affected factors that we have discussed previously, we have found out that stress levels rise when communication the work team, personal development and carrier opportunities are affected in a negative way.

The other factors that we have studied resulted that they have no significant impact on the stress level. The common ground between these factors is uncertainty. If our respondents feel uncertain about their tasks, which could be a communication issue, or uncertain about their future in the company, which could be translated

into opportunities or personal development means, they have shown to express higher stress levels. Negative effects on the salary also link towards a negative effect on employee stress levels.

If the management of a company or of a work team wishes to reduce the stress levels of their employees, it is recommended that they focus on improving the communication within the team, invest more in the personal development of their people and make a business structure that allows their employees to develop a career, through various professional opportunities. Also, it is important that they don't impact the salary in a negative way. If the company is unable to increase the salary, it is recommended to leave it unchanged, not reduce it.

An affected communication between team members has shown to increase the stress levels in our respondents, Figure 8. This happens because without a good communication within a team, members have an uncertainty about what they must accomplish, or what they are currently doing is the right thing to do. So, it is highly recommended to work on a team's communication for numerous reasons, including the reduction of stress levels within the team.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.533	.463		3.309	.002
	afect_communication	.327	.135	.296	2.423	.018

a. Dependent Variable: afect_stress_level

Figure 8. Linear regression: Effect of communication affected on stress level

A lack of personal development is also associated with an increase of stress levels, Figure 9. It is believed that employees are more stressed if they fill that their current job does not offer them any ways on improving on their

personal skills. It is important for managers and company directors to offer their team members and employees ways on personal development, such as workshops and teambuilding activities.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.092	.504		2.168	.034
	afect_development	.476	.153	.370	3.114	.003

a. Dependent Variable: afect_stress_level

Figure 9. Linear regression: Effect of development opportunities affected on productivity

The lack of career opportunities also has a negative effect on the individuals stress levels, Figure 10. It is shown that stress levels rise when the employee feels that he is working in a dead-end job, with no possibility to advance,

regardless of how hard he is working. Therefore, managers and company directors should focus on creating a business that offers a career path, professional opportunities, to maintain the stress levels of their employees low.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.307	.471		2.775	.007
	afect_opportunities	.421	.146	.345	2.875	.006

a. Dependent Variable: afect_stress_level

Figure 10. Linear regression: Effect of career advancement opportunities affected on stress level

Lastly, an affected salary has a direct effect on the increase of stress level amongst employees. As increasing a person's salary is linked to short term satisfaction, it is important

that companies make an effort not to lower ones salary, as it will have a negative effect on the employees stress.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.314	.524		2.510	.015
	afect_salary	.400	.157	.311	2.552	.013

a. Dependent Variable: afect_stress_level

Figure 11. Linear regression: Effect of salary affected on stress level

4.3 What HO working factors influence Work-Life Balance?

With a negative effect on mental health, it is shown that the work-life balance of the individual is reduced, Figure 12. This can be

caused because the stress induced by a negatively affected mental health can be transported within the employee's personal life. Having work related stress on his mind, the linear regression analysed shows us that this can have a direct effect on one's mental health.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.741	.455		1.628	.109
	afect_mental_health	.581	.135	.484	4.318	.000

a. Dependent Variable: afect_balance

Figure 12. Linear regression: Effect of mental health affected on work life balance

As one might imagine, if the salary is affected in a negative way, employees show to have a harder time maintaining a work-life balance, Figure 13. As previously analysed, a reduced salary causes stress on the employee,

making him work harder, to secure his job. This is not a healthy mean to increase productivity, as it has a direct negative effect on the stress and health-life balance of the respondents.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.721	.582		1.240	.220
	afect_salary	.584	.174	.395	3.355	.001

a. Dependent Variable: afect_balance

Figure 13. Linear regression: Effect of salary affected on work life balance

As the flexibility is reduced within the HO working factors, the work-life balance is suffering as well, Figure 14. A low flexibility at the workplace can be generated from tight deadlines and working in a strict timeframe.

Flexibility can be improved if the employer allows the employee to manage his own time, being given the chance to work on loser deadlines.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.712	.391		4.381	.000
	afect_flexible	.374	.150	.305	2.497	.015

a. Dependent Variable: afect_balance

Figure 14. Linear regression: Effect of flexibility affected on work life balance

Being given a company computer to work on has shown an increase in work-life balance in our respondents, Figure 15. This can be because the employee does not have to merge his personal computer to his business one, leading to a clear difference between work related activities and personal related activities.

People who work on their personal computer are subjected to distractions, such as social media and browsing through their personal files and might reduce their productivity while at work. This can result in having to stay overtime to finish one's daily tasks, leading to work in non-office hours, when

it would be recommended for the employee to focus on his personal life.

As a result, to help employees to have a better work-life balance, companies should focus on maintaining a good mental health amongst employees and offer them flexibility with the working hours. Also, if they have the resources, a small salary increase is recommended, especially in these times, at it has been shown to offer a boost in the work-life balance of our respondents. Lastly, being able to offer a work computer has shown to have a positive effect on increasing work-life balance.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.654	.340		4.867	.000
	affect_computer	.421	.134	.373	3.138	.003

a. Dependent Variable: affect_balance

Figure 15. Effect of computer supply affected on work life balance

4.4 Monitoring situation & ideal monitoring regime

When considering offering employees increased flexibility, better work-life balance and reduce their stress levels, companies should also consider that their employees still finish their tasks, at the end of a given time. So, we have asked our respondents if they are currently subjected to a Monitoring program, and how often do they think such a program should be executed, Figure 16.

Most respondents that voted for “no” wish to also never have a monitoring program. But many respondents that opted for “no” said that they think that a weekly verification from their superiors is welcomed.

Analysing the respondents that voted for “yes”, the majority also believed that a weekly monitoring activity seems like a good idea. Only one respondent that is subjected to a monitoring program said that he believes that monitoring should never happen, while the next majority being that they believe that a monitoring should happen every 2-3 days.

ideal_monitoring_regime	Count	monitoring	
		No Count	Yes Count
	1	0	0
Daily	0	0	3
Every 2-3 days	0	5	7
Never	0	16	1
Weekly	0	15	16

Figure 16. Matrix current monitoring situation & ideal monitoring regime

5 CONCLUSIONS

As a result of our study, Table 1, we have identified which factors are important amongst employees, how were the factors affected by the global pandemic and how do they influence the issues raised in our research questions, which are:

Q1. How did home office impact the work/life balance of employees during the COVID-19 pandemic?

Q2. How did home office impact the stress level of employees during the COVID-19 pandemic?

Q3. How did homeoffice impact productivity of employees during the COVID-19 pandemic?

Table 1. Research synthesis

	Productivity	Stress Level	Work-Life Balance
Socialising			
Communication within a team		X	
Understand from superiors			
Mental Health			X
Personal Development	X	X	
Career Opportunities		X	
Salary	X	X	X
Work On a Computer			X
Flexibility			X

To sum up, if a company or a manager wishes to improve the Productivity, Stress Levels or the Work-Life Balance of their employees or their team, they should prioritize the factors that were associated to have a direct and meaningful impact on the issue in question.

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