

## THE IMPACT OF DEPRESSION ON WORK PERFORMANCE IN TELEWORKERS IN SERBIA

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**Teleworking, as a new method of work, implies working out of a designated office space using informational technologies. As a modern work practice, it became popular in recent years but abruptly developed in the last two years with the COVID 19 pandemic when a large number of companies were forced to perform remotely resulting in challenges. This research aims to examine how mental health can affect work performance in teleworking employees. The sample holds 134 respondents conventionally and remotely employed in Serbia who were interviewed using the CES-D self-assessment scale, with 20 questions measuring depressive symptomatology. This study demonstrates the connection between the methods of work and the mental state and their influence on work results. Teleworkers in Serbia show higher values of depression than conventional employees which can negatively affect their work performance. This research contributes to the improvement of remote employee management in Serbia and gives recommendations on how to notice depression in teleworkers, prevent it and reduce its effects.**

**Keywords:** Teleworking; Depression; Work performance; Age; Remote workforce.

### INTRODUCTION

There is no consensus on a definition of telework among authors (Sullivan, 2003), but in general terms, telework is considered remote work that involves the usage of informational and communicational technologies (Kerrin & Hone, 2001). This definition is vague and broad since there are diverse methods of work within this description depending on employment status, type of work, contractual arrangements, and work location. This rapidly changing system of work is not one-dimensional, so it is difficult for researchers to develop a more specific definition. As a modern method of work, the full effects of teleworking on mental health are not researched sufficiently.

The impact of mental health on the workplace is great. Although different countries use different terms to define the same problems, World Health Organization defines mental health, not as the absence of mental illness, but as a form of well-

being when the person feels in control of their life and is able to take on responsibility and face challenges. These latter two have very important weight for the companies since the workplace can be the site of challenges and great responsibilities for employees. The same source defines depression as a mental disorder where individuals' mental health deteriorates in a state of lost interest in activities previously liked (WHO, 1998).

Depression is estimated to cost the United States between \$ 35 million and \$ 50 million per year due to lost productivity (Lerner et al., 2010). Depressed employees are less productive, have a harder time concentrating, retire earlier, and are more likely to be absent from work compared to their non-depressed colleagues (Harvey et al., 2011). Regardless of the type of work, every job requires a certain concentration and frequent contact with people, and that additionally exhausts people who are prone to depression. This is particularly evident in jobs such as waiters, medical workers, and large-scale production workers (Egan et al., 2007).

Some research finds that stress at work can even cause depression (Wang, 2004), and some confirm that adequate treatment of depression significantly reduces the deterioration in the quality of work in employees (Mintz et al., 1992; Wang, 2004), while it is cheaper for the company to invest in an adequate depression management system than to continue to have losses (Kessler et al., 1999).

Various authors cite several reasons why teleworkers have less stress than conventional employees. While some consider fewer distractions during work to be the most important (Haddad et al., 2009), others find that avoiding travel to work significantly reduces the negative impact on the employee (Kahneman et al., 2004). The latter provides employees with more time they are happy to use to allow themselves more sleep and/or physical activity, both of which are associated with positive emotions. It is certain that employees, who have more independence, fewer interruptions during work, more time for themselves, and more control, really do have less stress at work and can be happier and less prone to depression (Evans-Lacko & Knapp, 2018). Unfortunately, there are few studies investigating the impact of telework on employees. According to Ozcelik and Barsade (2018) workplace loneliness can lead to lower job performance, so further research is needed on teleworkers. According to Anderson et al., (2014), openness to new experiences makes employees more creative, broadens horizons, develops curiosity, and improves understanding of new ideas and the desire for diversity. Teleworking requires the employee to adapt more quickly to new conditions and structures and to use new technologies in their work. A certain dose of openness to new experiences makes it easier for remote employees to adapt to these conditions more easily and quickly without negative emotions and resistance to change. The ability to adapt is an important step in maintaining good mental health (Carillo et al., 2021). Also, the time flexibility that exists in this type of work further strengthens the employee's readiness for unpredictable situations (Nakrošienė et al., 2019).

Nolen-Hoeksema (2000) points out rumination as an important phenomenon in employees that can lead to the development of depression and other negative states. Rumination is a state of chronic dissatisfaction in which a person fails and continues to inadequately cope with this dissatisfaction, but it is maintained constantly in

the person's consciousness. This process significantly negatively affects the quality of life and weakens the memory, and ability to analyze and make the right decisions in an individual. Rumination often leads to depression if one does not react adequately and timely, since people tend to isolate themselves (Treynor et al., 2003). Teleworkers may have an increased tendency to ruminate because teleworkers are more socially isolated than conventional employees and thus left to their own thoughts without a real opportunity to share them with colleagues. However, teleworkers are also less exposed to stress at work (Kazekami, 2020), and may be less prone to rumination.

When talking about teleworkers and the effects of this method of working on them, the individual characteristics of the individual must also be taken into account. People who are prone to seeking intense feelings and emotions will look for a stimulating work environment that allows them to meet these needs, and working remotely can create some form of dissatisfaction in individuals with these tendencies (Lundberg & Lindforts, 2002). Also, people who are extroverted and have a desire for social connection, find that they are more satisfied with the conventional method of work precisely because of the need for kinship with colleagues. Social connection and empathy with colleagues have a strong impact on the employees' well-being, and remote employees can feel lonely. However, this can be compensated to some extent if remote employees manage to meet this need by interacting with family members or friends (Lundberg & Lindforts, 2002).

The health effects of teleworking have not been studied nor can the authors agree on them. Methodologically, it is not easy to determine how the impact would be measured, given the diversity of forms of teleworking. Given the development of this method of work even before the global pandemic caused by COVID 19, it is certain that these negative effects on health are not strong, because this method would otherwise disappear or at least slowdown development. According to Marmot (2013), "depriving people of control over their own lives seriously damages their health." Greater control over one's own time and life may contribute the most to the satisfaction of remote employees.

The nature of telework means fewer social connections with colleagues, often working

without any contact with colleagues. Being physically away from the company can cause the employee to feel isolated and lonely (Afonso et al., 2021). Some research recommends that employees spend at least 20% of their working time working in an office (Fairweather, 1999). Such findings further indicate the importance of adequate management, because if the job makes the worker depressed and thus less productive, the whole economy is at a great loss (Caliendo et al., 2018). The burden of employee depression manifests itself both privately and in business, and managing the mental health of employees must be part of every company that wants to develop its employees and nurture organizational commitment with them.

Organizations do not exist independently of society, and employees are social beings, so it is natural and logical that social factors have a great influence on work performance, especially family relationships. Stress has a great impact on an individual, and its sources can be different, they can be individual, related to the work that the individual does, or come from the family. Any stress that occurs at work and negatively affects business outcomes belongs to job stress (Ojha, & Gairola, 2015). This is important since a lot of teleworkers work from home, exposed to their family members. Also, a good relationship between managers and employees can reduce job-related stress and it follows in better productivity and success of the company (Petrović et al., 2019).

Although teleworking is not a new concept, research on the psychological impact of this method of work and depression in teleworkers is not common. Just as conventional methods of work affects employees outside of work, so teleworking has an impact on employees, especially their readiness for new experiences, dissatisfaction, the need for socialization, and the constant search for intense feelings and emotions (Pigini & Staffolani, 2019). Employees who occasionally work remotely show much higher values of positive mental state and much lower values of negative mental state on days when they work remotely compared to days they spend in the office (Anderson et al. 2014). However, telework does not have exclusively positive effects, so additional research is important to find a model that precisely determines who and in which way can have the most benefits depending on the job and personal characteristics of the employee. The literature defines a large number of factors that can positively and

negatively affect work performance including mental health. According to Bubonya et al. (2017) employees with “emotional issues” show six times higher diminished productivity than employees in good mental health. The same authors recommend reducing job-related stress since it can be responsible for both absenteeism and productivity. Mindfulness in general can help employees to improve their mental state and reduce the negative effect of mental illness, especially components such as acting with awareness, verbally describing emotions, and non-judgment of inner experience (Mandal et al., 2012). Despite the small amount of research on the impact of these factors on the work performance of teleworkers, many of them are indeed of a general nature and can be applied regardless of the type of work and the employee's environment.

Teleworkers show greater job satisfaction, greater productivity, and greater organizational commitment (Haddad et al., 2004; Kahneman et al., 2004; Taboroši et al., 2020), and it can be assumed that telecommuting employees nurture a better mental state than conventional employees who have certain stressors that are avoided by working remotely. Other authors suggest that working from home can be a cause of different psychological distress (Frone et al., 1992), depression (Eagle et al., 1997), emotional distress, and cholesterol increases (Adams et al., 1996). This was significantly noticeable in research done during COVID 19 lockdowns (Loia & Adinolfi, 2021).

## METHOD

### Hypotheses

This paper presents the results of research aimed at examining and analyzing the differences in the values of the dimensions of depression and work performance in conventionally employed teleworkers. The main goal of this research is to determine how depression affects work performance in employees. Taking into account that the author of the research observes two basic groups of respondents, conventionally employed and remotely employed, as well as introduces an additional variable, age, in this paper one hypothesis and two sub-hypotheses are set:

*H0*: There is a statistically significant difference between the average estimates of the

depression dimensions and work performance, for conventionally employed and teleworkers.

H1: There is a statistically significant association between age and depression and work performance.

H2: It is possible to statistically significantly predict work performance based on the dimensions of depression.

H3: There is a statistically significant difference between the average estimates of the depression dimensions and work performance, for teleworking men and women.

### Survey instruments

The CES-D self-assessment scale, which contains 20 questions measuring depressive symptomatology in the population, was used to measure depression. The validity of this questionnaire was determined by patterns of correlations with other measures of self-assessment of depression, clinical assessments of depression, and other variables (Radloff, 1991). This questionnaire has four dimensions which are described below, with the number of questions and its explanation.

- A. depressed affect: 3 - melancholy, 6 - depression, 9 - lack of purpose, 14 - loneliness, 17 - crying, 18 - sadness.
- B. unhappiness: 4 - a feeling of equal value concerning other people, 8 - a feeling of hope, 12 - a feeling of joy, 16 - feeling of enjoyment in life.
- C. physical manifestations of depression: 1 - anxiety of the examinee, 2 - disturbance in appetite, 5 - disturbance of attention, 7 - reduction of effort that the examinee invests in everyday things, 10 - fear, 11 - sleep disturbance, 20 - disturbance of the examinee's movement habits.

D. interpersonal manifestations of depression: 15 - people are hostile, 13 - less interaction with people, 19 - people feel negative emotions towards the respondent.

In this study, a questionnaire modeled on the authors (Kwahk & Park, 2018; Welbourne et al., 1998; Williams & Anderson, 1991) was used to measure work performance. This questionnaire has 5 questions that makeup only one dimension: work performance.

### Participants

In this research, the sample is intentional and appropriate and includes 134 respondents, of both sexes, of different ages, and educational structures. Of the total sample, 62 respondents were employed remotely as entrepreneurs or contract employees, or freelancers, while 72 respondents were a control group and before the COVID 19 pandemic did not work remotely. There are 40 men and 94 women in the total sample. When it comes to the age structure, 70 people are over the age of 30, while 64 people are under the age of 30. Of all respondents, 102 are university graduates, whereas 32 with high school education. The research was conducted using the Google Forms tool by forwarding questionnaires electronically. Respondents are employed remotely and conventionally in Serbia. This research was conducted from March 21 to 31, 2021.

## RESULTS

### Descriptive statistics

Descriptive-statistical measures are shown in Table 1.

Table 1: Descriptive-statistical measures of the examined variables

Dimensions	Range	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis	$\alpha$
Depressed affect	1-7	1.00	5.83	1.99	1.24	1.627	1.830	.912
Unhappiness	1-7	1.00	5.75	2.18	1.28	1.177	0.695	.836
Physical manifestations	1-7	1.00	4.86	2.39	1.03	0.839	-0.341	.827
Interpersonal manifestations	1-7	1.00	5.00	1.76	0.93	1.564	1.974	.749
Work performance	1-7	4.40	7.00	6.19	0.67	-0.843	0.236	.732

Cronbach's alpha values range from 0.732 to 0.912, showing the high reliability of research results of all dimensions, especially the dimensions of depressed affect, unhappiness, and physical manifestations of depression. Based on descriptive-

statistical measures (Table 1) and based on indicators of asymmetry of skewness and kurtosis distributions, it can be concluded that all variables are normally distributed because they range from -2 to 2, and parametric statistics will be used in

further analysis. The results in *Table 1* apply to the aggregate sample, which includes conventional employees and teleworkers.

**T-test**

To compare the average scores of depression dimensions and work performance, a t-test was used and the values are shown in *Table 2*.

The results of the t-test (*Table 2*) show that there is a significant difference between conventional and remote employees in terms of the severity of the

*Table 2: T-test of the average scores of depression dimensions and work performance for teleworkers and conventional employees*

Dimensions	Type of employment	N	Mean	Std. Dev.	t (df)	p
Depressed affect	Conventional	72	1.75	1.13	-2.511 (121.9)	<b>0.013</b>
	Remote	62	<b>2.28</b>	1.30		
Unhappiness	Conventional	72	2.05	1.33	-1.276 (132)	0.204
	Remote	62	2.33	1.21		
Physical manifestations	Conventional	72	2.43	0.96	0.529 (132)	0.598
	Remote	62	2.34	1.12		
Interpersonal manifestations	Conventional	72	1.79	0.76	0.466 (132)	0.642
	Remote	62	1.72	1.10		
Work performance	Conventional	72	6.08	0.68	-1.894 (132)	0.060
	Remote	62	6.30	0.65		

dimension of depressed affect based on the comparison of mean values, but also high statistical significance  $p = 0.013$  obtained results. Depressed affect are more pronounced in teleworkers ( $M = 2.28$ ;  $SD = 1.30$ ) than in teleworkers ( $M = 1.75$ ;  $SD = 1.13$ ).

Verification of the correlation of age with the dimensions of depression and work performance was performed using Pearson's correlation coefficient, and the results are shown in *Table 3*.

*Table 3: Relationship between age, depression dimensions, and work performance.*

	1	2	3	4	5
1. Age					
2. Depressed affect	-.071				
3. Unhappiness	-.028	.863**			
4. Physical manifestations	-.244**	.740**	.746**		
5. Interpersonal manifestations	-.089	.647**	.616**	.670**	
6. Work performance	.050	.045	-.090	-.183*	-.085

Note: \* - statistically significant correlation at the level of  $p < 0.01$

The results of the correlative analysis show that the dimension of the physical manifestation of depression is in a significant negative low correlation with age and work performance. Although not relevant to this study and hypothesis, the results show that the dimensions of unhappiness, physical manifestations of depression, and interpersonal manifestations of depression are in a significant positive high association with depressed affect. Also, the dimensions of the physical manifestation of depression and the interpersonal manifestation of depression are in a significant positive mean connection with the dimension of unhappiness.

Finally, to verify the performance prediction based on the dimensions of depression, a multiple regression analysis was performed. As the allowed values for VIF maximum 10 and Tolerances

minimum 0.20, it is concluded that there is no potential problem of multicollinearity, so it is possible to perform regression analysis. The results are shown in *Table 4*.

The results of the multiple regression analysis (*Table 4*) show that it is possible to statistically significantly predict work performance based on the dimensions of depression and that the model explains 10.4% of the variance criteria. Within the model, depressed affect showed to be significant predictors, as a predictor of positive direction and dimensions of physical manifestation as a predictor of negative direction.

To compare the average scores of depression dimensions and work performance in teleworking men and women, a t-test was used and the values are shown in *Table 5*.

Table 4: Prediction of work performance based on dimensions of depression

Dimensions	$\beta$	p	Tolerance	VIF	Model summary
Depressed affect	0.638	0.000	0.225	4.443	$R^2=0.131$ ; Adjusted $R^2=0.104$ ; $F_{(4,129)}= 4.880$ ; $p=0.001$
Unhappiness	-0.331	0.056	0.229	4.358	
Physical manifestations	-0.383	0.006	0.357	2.798	
Interpersonal manifestations	-0.037	0.747	0.500	2.002	

Note:  $\beta$  - standardized regression coefficient; p - statistical significance; Tolerance and VIF - measures of multicollinearity;  $R^2$  - coefficient of determination; Adjusted  $R^2$  - adjusted coefficient of determination; F - F quotient.

Table 5: T-test of the average scores of depression dimensions and work performance for teleworking men and women

Dimensions	Gender	N	Mean	St.Dev.	t (df)	p
Depressed affect	Men	12	2.13	1.40	-0.429 (60)	0.670
	Women	50	2.32	1.29		
Unhappiness	Men	12	2.45	1.44	0.376 (60)	0.708
	Women	50	2.31	1.17		
Physical manifestations	Men	12	2.30	1.15	-0.107 (60)	0.915
	Women	50	2.34	1.12		
Interpersonal manifestations	Men	12	1.55	0.478	-0.572 (60)	0.570
	Women	50	1.76	1.210		
Work performance	Men	12	6.00	0.817	-1.865 (60)	0.067
	Women	50	6.38	0.593		

The results of the t-test (Table 5) show that there is no significant difference between teleworking men and women employees.

## DISCUSSION

The results of the first t-test for teleworkers and conventional employees (Table 2) show that in teleworkers one dimension of depression has significantly higher statistical values than in conventional employees. That dimension is depressed affect. Depressed affect according to the CES-D scale for self-assessment of depression includes: 1) melancholy, 2) depression, 3) lack of purpose, 4) loneliness, 5) crying, and 6) sadness.

The results show that remote employees have higher values of depressed affect compared to conventional employees. Depressed affect can lead to large losses for the company, from reduced productivity (Lerner et al. 2010), through employee exhaustion (Egan et al. 2007), and rumination (Nolen-Hoeksema, 2000), to health problems (Tavares, 2017). As remote employees are already at increased risk of developing metabolic, cardiovascular, and gastrointestinal diseases (Buomprisco et al., 2021), managing their depressing effect is vital. A small number of studies examine depression in remote employees and its impact on the quality of work, and it is

difficult to find the right recommendations. According to Anderson et al. (2014) employees who work part-time remotely show significantly higher values of mental state and lower values of negative mental state on days when they work remotely compared to the days they spend in the office. According to Pratt (1999), 19.6 million Americans work at least part of their working time remotely, and as this concept of work developed right in the US, this model may be the most suitable for both the company and the employee. It is an important decision for managers to carefully find a flexible work model to make the most of the positive effects of teleworking and minimize the negative effects of this method of work on their employees.

Teleworkers show higher values of work performance compared to conventional employees. This method of working with employees develops higher values of job satisfaction (Madsen, 2011), organizational commitment (Taboroši et al., 2020), more productivity (Bloom, 2014) and show higher work performance (Gainey et al., 1999). Often, remote employees spend more time performing their work duties (Bloom, 2014), and such results are not surprising, but if we look at the independent predictor of depression and results that show that teleworkers are more depressed than conventional employees, this is where it hides the

great danger of this method of work. Teleworkers will perform their work duties better, but due to other aspects of telework such as lack of self-motivation, low self-esteem, isolation, loss of concentration (Tavares, 2002), and others, they will slowly begin to show depressive effects that will impair productivity and remote employees performance. Precisely due to the effect of this work method, it may seem that teleworking does not have positive effects on the company in the long run and it can be if the management does not manage its employees properly. With quality management, deep unemotional understanding, strongly developed communication, and thoroughly developed modern management methods, the manager can use all the potentials of teleworking in the right way, contribute to better business results for his company and develop satisfied and dedicated employees.

It is also important to note that other dimensions of depression such as feelings of unhappiness, physical manifestations, and interpersonal manifestations do not show statistically significant differences in values depending on the method of work. All employees, regardless of the method of work, have similar values of hope, enjoyment of life, and happiness. The values of physical manifestations of depression are very similar, such as anxiety, appetite disorder, attention disorder, sleep disorder, rumination, and fear. The values of interpersonal manifestations such as the experience of a hostile environment, the decrease in the desire for interaction, and negative emotions towards others are also very similar values. Although not relevant to this research, this finding is important for managers because it shows that regardless of the method of work, employees will show happiness in the same way, but also negative emotions, and it is not up to management to worry about whether a certain method of work will lead to overemphasized positive or negative emotions in a workplace, which can lead to mental exhaustion (Lerner et al., 2010). Furthermore, it is of great importance to know that interpersonal relationships are equally exposed to the effects of depression, regardless of the method of work, and it is not possible to improve the attitude of employees by changing the way of working but to deal with the problem in a quality way. Huppert (2005) finds that working in small groups emphasizes the advantages the person nurtures in the workplace. Subjects who practiced these techniques were happier and less depressed. According to the same author (Huppert, 2005), mindfulness is another tool

employees should include in improving their mental health and that is something other researchers recommend as well (Bubonya et al., 2012; Brown & Ryan, 2003; Kabat-Zinn, 1990).

Based on these results, it can be validated that hypothesis H0 has been confirmed.

The results for hypothesis H1 are shown in Table 3. The results show that the dimension of the physical manifestation of depression is in a significant negative low correlation with age and work performance. These results show that older respondents show lower values of the physical manifestation of depression, ie with the increase of the age of the individual, the possibility of the manifestation of physical manifestations of depression decreases. Such findings are very logical. Physical manifestations of depression include 1) anxiety, 2) appetite disorder, 3) attention deficit disorder, 4) reduction of the effort that the respondent invests in everyday things (rumination), 5) fear, 6) sleep disorder and 7) disorder of movement habits of the respondents.

Thus, older people, having experience on their side, will manage their emotions, but also their behavior, much easier, and will show less physical depressive manifestations. There can also be a great danger of this correlation here, because depression in the elderly will be more difficult to recognize concerning younger people (Garland & Solomons, 2002), and there can be extremely negative effects on business. If the physical manifestations of depression in employees are not noticed early enough, the company will have negative effects on the business for some time. This is especially important for employees at a distance, because of fewer opportunities for informal communication, managers can completely overlook the psychological state of the employee, and it is necessary to develop a system that would timely determine the negative development of depression in employees.

These results also show a negative correlation between the dimension of physical manifestations of depression and the dimension of work performance, which practically represents that the higher the values of work performance, the lower the values of physical manifestations of depression. This can be interpreted in two ways, and in both cases, an adequate management response is required for the situation to be sustainable. First, employees can get great

satisfaction from performing well at work and these are really positive effects. Adequate rewarding of productive and quality workers leads to great organizational commitment and good long-term results. However, if the employee, due to concealment of depression, spends more time at work and tries to improve his condition with good results, the negative effects will be shown on the mental state of the employee, their work performance, but also the company's overall business (Ishiyama & Kitayama, 1994).

Based on these hypotheses, it can be concluded that H1 is confirmed.

The results for hypothesis H2, to predict work performance based on the dimensions of depression, are presented in *Table 4* which shows that it is possible to statistically predict work performance based on the dimensions of depression. The level of significance of these results is  $p = 0.001$ , which represents an extremely high level of significance. The coefficient of multiple determination  $R^2 = 0.131$  represents the percentage of the influence of the dimensions of depression on work performance and it is 13.1%. Various factors have an impact on an employee's work performance, but the impact of depression is 13.1% on an individual's overall performance. Due to the sample size,  $R^2 = 0.104$  was made and adjusted, which is more credible, and it can be concluded that depression has a 10.4% impact on work performance. This is the cumulative impact of all dimensions of depression on work performance, but not every predictor has an equal impact. Within the model, the dimension of depressed affect, as the predictor of the positive direction, and the dimension of the physical manifestation as the predictor of the negative direction proved to be significant predictors.

The negative impact of depression on work performance is confirmed by other authors (Egan et al., 2007; Lerner et al., 2010; Nolen-Hoeksema, 2000; Wang, 2004), and this research also supports. It can be concluded that depressed employees will perform their work duties worse and that their work performance will be at a lower level than among employees who do not have depression.

Depending on the activity, depression can also have a significant negative impact on an individual's physical health (Roshanaei-

Moghaddam et al., 2009), and a decline in work performance can be due to a physical inability to do work (Simon et al., 2001). Remote employee managers are not always able to ascertain the physical health of their employees, and more subtle depressive effects are not so easy to spot, so it is important to develop good channels of communication with your employees. Due to the rare or non-existent opportunities to meet in person, managers must make good use of all opportunities to communicate with their employees, so as not to endanger them too much, and still have enough information about each employee to be able to respond adequately in case of a depressive state and declining work performance. Proper and timely management of employee mental health and needs is more cost effective for the company compared to managing the effects of depression on employee performance (Lerner et al., 2010).

Based on these results, it can be concluded that hypothesis H2 has been confirmed.

The results of the second t-test for teleworking men and women (*Table 5*) show that there are no statistically significant differences between the genders in terms of the severity of the depressive effects dimension in teleworkers based on a comparison of mean values and levels of statistical significance. By comparing the mean values and values of statistical significance, it can be concluded that there would be no significant changes in the results even by increasing the sample.

Based on these results, it can be concluded that hypothesis H3 has not been confirmed.

## CONCLUSION

Following this research, it can be concluded that teleworkers exhibit significantly higher statistical values of depression compared to conventional employees, and this is especially true in the dimension of depressed affect. Moreover, remote employees exhibit higher values of the work performance dimension compared to conventional employees. Remote employees will react worse to the occurrence of depression compared to conventional employees, and in addition to the negative effects on the work they perform, employees can also develop physical illnesses, leading to a potentially great loss for the company.



In the case of older employees, there is a danger of late detection of depression concerning younger employees, and it must be taken into account when defining how to manage depression in employees at a distance. The indicator that it is possible to statistically significantly predict work results based on depression in employees (conventionally and remotely) is the most significant result of this research.

The method of work certainly has an impact on the psychological state of employees, and this can be especially shown in remote employees. A drastic change in the work environment must leave some effects on work performance. Depending on the personal characteristics and character of the individual, but also the activity they perform, the employee can enjoy more or less the benefits of teleworking. The strong influence of the employee's psychological state on work results is indisputable, and the influence of depression of 10.04% must not be neglected. Losses for the company in case of employee depression are not only in the form of reduced work performance, but also the cost of treating the employee, the cost of training a new employee who will temporarily or permanently replace an employee who is unable to do their job, and ultimately the cost of investing in an employee that the company had before they developed depression. It is more profitable for a company to invest in adequate management of employee depression than to manage its effects (Kessler et al., 1999). In the 1980s, the economic burden of depression in the USA exceeded \$16 billion per year, from which \$10 billion is the direct cost of lost productivity (Greenberg et al., 2003). According to the same authors, per patient costs for the company were \$11.096 in 1997, which is 3.5 times higher than per average employee. This is especially important for remote employees. As this method represents the partial or complete performance of business obligations in a location independent of the company's location, the company and management have a much smaller impact on the experiences of the individual and his environment. The system of support is of great importance to employees at a distance (Taboroši et al., 2020), and well-developed communication channels are of great importance for the quality management of these employees. With adequate communication, managers will be able to notice the appearance of depression in their employees in the right way. According to Foy et al. (2019) managers who implement policies that can increase social support can expect their employees to

experience less work-related stress and reduce depression. This can lead to better performance, improved competitiveness, and an enhanced image of the company. To minimize all the negative effects of teleworking, and use its benefits, it is recommended to develop a model that allows partial teleworking, which would ensure that the company has more control over the employee's environment, but also personal contact that would provide employees a sense of belonging.

The author Fairweather (1999) recommends that employees remotely spend at least 20% of their working time "in the office" or on the company's premises. Precisely such a system of work will enable the employee to freely manage their time while doing work remotely and will enable personal contact with colleagues and superiors from which they will be able to satisfy the need for socialization in the business sense. Mann and Holdsworth (2003) emphasize the importance of including teleworkers in organization charts, and relevant circulation lists and listing them in companies' telephone and e-mail directories. Making sure that remote employees feel they are a part of the company and the team by inviting them to the onsite meeting, briefings and social functions can improve their mental health.

Dietrich et al. (2011) find that workplace depression prevention strategies are still not implemented enough. For the company to implement the right program, it has to be introduced in the early stage of development. The correct game plan has to include work-related stress management and stress reduction techniques and they have to be practiced regularly (Martin et al., 2009). Of course, depression is not caused by only work-related stress, as it is an aftermath of many psychosocial and biological factors, but companies can only influence work-related elements. Management together with the human resources department should create a multimodal approach to make sure the action plan will cover all groups of employees (age, gender, social background, type of work, etc) for prevention to be successfully implemented (Steffick et al., 2006). The timely mannered reaction can have a lot of positive effects on people with depression and reduce the chances of remission after one year (Godard et al., 2006).

This study can help managers of remote employees in Serbia and countries with similar organizational cultures to rethink their practices and develop

procedures to recognize and manage employee's depression to improve work performance, business results, and competitiveness in the ever-changing global market. Since teleworking is a relatively new concept in Serbia, a lot of attention is needed in the implementation of this method of work since the domestic market lags behind global markets (Bakator et al., 2019). Implementing corporate social responsibility and caring for its employees can help the company improve its image and gain the respect and admiration of customers which can lead to better competitiveness and increased profit. This is something that global market leaders are already applying and companies in Serbia need to gain on (Bogetić et al., 2018).

The main limitation of this research is that it was conducted in Serbia, so the obtained results are primarily valid for teleworking in organizations in Serbia.

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## UTICAJ DEPRESIJE NA RADNE PERFORMANSE KOD ZAPOSLENIH NA DALJINU U SRBIJI

Rad na daljinu, kao novi način rada, podrazumeva rad van namenskog poslovnog prostora upotrebom informacionih tehnologija. Kao moderna radna praksa postao je popularan poslednjih godina, ali se naglo razvio u poslednje dve godine tokom pandemije COVID -19, kada je veliki broj kompanija bio primoran da radi na daljinu, što je rezultiralo izazovima. Ovo istraživanje ima za cilj da ispita kako mentalno zdravlje može uticati na performanse zaposlenih na daljinu. Uzorak obuhvata 134 ispitanika koji su i konvencionalno, i na daljinu zaposleni u Srbiji, a koji su intervjuisani pomoću CES-D skale samoprocene, sa 20 pitanja koja mere depresivnu simptomatologiju. Ovo istraživanje pokazuje povezanost metoda rada i mentalnog stanja i njihov uticaj na rezultate rada. Zaposleni na daljinu u Srbiji pokazuju veće vrednosti depresije od konvencionalno zaposlenih što može negativno uticati na njihov radni učinak. Ovo istraživanje doprinosi poboljšanju menadžmenta zaposlenima na daljinu u Srbiji i daje preporuke o tome kako primetiti depresiju kod radnika na daljinu, sprečiti je i smanjiti njene efekte.

**Ključne reči:** Rad na daljinu; Depresija; Radne performanse; Starost; Zaposleni na daljinu.