

Busu, Mihail; Gyorgy, Attila

## Article

# The mediating role of the ability to adapt to teleworking to increase the organizational performance

Amfiteatru Economic Journal

## Provided in Cooperation with:

The Bucharest University of Economic Studies

*Suggested Citation:* Busu, Mihail; Gyorgy, Attila (2021) : The mediating role of the ability to adapt to teleworking to increase the organizational performance, Amfiteatru Economic Journal, ISSN 2247-9104, The Bucharest University of Economic Studies, Bucharest, Vol. 23, Iss. 58, pp. 654-668,  
<https://doi.org/10.24818/EA/2021/58/654>

This Version is available at:

<https://hdl.handle.net/10419/281593>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by/4.0/>

**THE MEDIATING ROLE OF THE ABILITY TO ADAPT TO TELEWORKING  
TO INCREASE THE ORGANIZATIONAL PERFORMANCE****Mihail Busu<sup>1\*</sup> and Attila Gyorgy<sup>2</sup>***<sup>1)2)</sup> Bucharest University of Economic Studies, Bucharest, Romania*

<b>Please cite this article as:</b> Busu, M. and Gyorgy, A., 2021. The Mediating Role of the Ability to Adapt to Teleworking to Increase the Organizational Performance. <i>Amfiteatru Economic</i> , 23(58), pp. 654-668.  <b>DOI: <a href="https://doi.org/10.24818/EA/2021/58/654">10.24818/EA/2021/58/654</a></b>	<b>Article History</b> Received: 29 March 2021 Revised: 17 May 2021 Accepted: 18 June 2021
--	---

**Abstract**

In this article, the authors develop an econometric model to determine the impact of professional telework activities on the degree of employees' performance, based on the ability to adapt to the new labor system. The data were collected using a questionnaire addressed to employees of companies that provide financial consultancy in Romania and were analyzed using the statistical software Smart-Pls 3.3.2. Starting with the literature of profile, the paper identifies the drivers of the organizational performance model in carrying out professional activities in the remote working system. These indicators are independent variables that model the impact of telework activities on business performance. The results of the study confirm the hypotheses presented in the article, emphasizing that the performance indicator of employees working in the remote system is the direct and intrinsic result of the collaboration of several factors, such as personal psychological, economic, and professional needs, system variables and regulation, while the ability to adapt to telework has a moderator effect between independent variables and the organizational performance. Identifying the determinants that contribute to increasing organizational performance through professional activities in telework is relevant for the human resource management, to value the positive aspects, such as the ability to actively involve employees, rewarded for their work and to prevent their resilience to change.

**Keywords:** telework, organizational performance, econometric model, Partial Least Squares (PLS), Structural Equation Modelling (SEM), ability to adapt, COVID-19, psychological impact.

**JEL Classification:** O12, M10, C30, C83

---

\* Corresponding author, **Mihail Buşu** – e-mail: [mihail.busu@fabiz.ase.ro](mailto:mihail.busu@fabiz.ase.ro)

**Authors' ORCID**

Mihail Buşu: <https://orcid.org/0000-0002-4172-0405>

Attila Gyorgy: <https://orcid.org/0000-0002-6858-8205>

## **Introduction**

The International Labor Organization's guide (ECB Annual Report, 2020) on teleworking during the COVID-19 pandemic, adopted in July 2020, defines telework as a process of using information and communication technology, through an electronic work support located outside the company's headquarters. In an epidemiological context, the location of the telework equipment must be clearly defined in the agreement between the employee and the employer. In addition to the location, other essential elements shall be provided in the agreement, as following: the work schedule, the activities carried out, the IT equipment necessary for the work, as well as the monitoring mechanism, which allows the employer to have control over the professional activities performed by employees, outside the organization, through the activity reports communicated periodically to the employer by the employees. The use of this telework model ensures the continuity of the professional activities, in exceptional situations, determined by acts of terrorism, extreme climatic episodes that can be life threatening or pandemic periods. The COVID-19 pandemic context, which started in March 2020 with the announcement of the World Health Organization, has led to major changes at all levels, such as economic, social, health, cultural and even on a personal level, through awareness of the human values being at risk and of the need to change the daily routine.

In Romania, the state of emergency was declared by the Presidential Decree no. 195/2020, which was followed by the adoption of the Emergency Ordinance no. 36/2020 for the amendment of certain normative acts, as well as for the adoption of the specific measures during the state of emergency, as provided for the Decree no. 195/2020. These legislative acts have constituted the legal basis for the adoption of the telework system, both by the central and local public administration and by the business community, as a means of prevention against the spread of COVID-19. Therefore, among the most obvious changes of the epidemiological period, the dynamics of the ITC sector was highlighted, considering the imperative of adapting labor relations in the digital environment, to ensure the continuity of the professional activities, which involved replacing the classic system of activities with a dynamic, flexible, and virtual system.

Although the features of the new system are obvious, however, the immediate transition, without a period of adaptation, brought a number of negative effects especially for vulnerable groups, either due to the specificity of the activity (for example, construction activities were stopped during quarantine, without the possibility of switching to a virtual environment, unlike most of the financial-accounting activities which are carried out online), either due to personal factors, determined by age, education or psychological impact as a result of the transition to the new virtual model. This paper evaluates the causal relation between the ability to adapt to the new virtual model and the economic results achieved by companies in a particular sector of activity, analyzed in terms of organizational productivity, by replacing the traditional model of labor relations. Increasing the productivity of the telework system is a challenge in the current context, as revealed by the latest studies of the international organizations (OECD, 2020).

The purpose of this paper is to assess as such the organizational performance model in carrying out professional activities in telework system by examining the data collected from companies in charge of financial consultancy in Romania. Thus, the causal relationship between adaptability and telework performance is supported by a mediation model analyzed with structural equations, tested with the least partial squares method. The article continues with the review of the literature and the development of the research hypotheses,

followed by the research methodology. In the results and discussions section, the main conclusions of the econometric evaluation are presented, being then developed in context, starting from the relevant landmarks of the literature. The conclusions section aims to summarize the contributions of the works, to highlight its importance and to indicate possible future limitations and directions of the research.

### **1. Literature review**

The virtual work model has brought challenges for its organizations and employees. Depending on the degree of adaptability or acceptance (Zhang, et al., 2020), research in the field makes assessments about the effectiveness of the new model, by means of the econometric analysis based on the study variables, using polls or questionnaires applied to samples. The study on the evaluation of the telework activities in Lithuania is illustrative, being designed on a questionnaire answered by 436 people in telework (Raišienė, et al., 2020). The research results are discussed from the perspective of its drivers. These factors may be personal, i.e., age, education, profession, motivational factors, such as the desire to ensure continuity of projects started, proactive attitude, organizational factors, such as ongoing communication between employees and management or technical factors, such as the existence of high-performance electronic equipment for the timely performance of assigned tasks. The independent variables that define the employee's profile: age, education, skills, family can have a significant impact on the results of professional activities, as indicated by the study, conducted in Lithuania. The educational factor is relevant for independent decision-making in the case of people with higher education, while organizational commitment is lower for people with secondary education (Kuscu and Arslan, 2016).

The psychological profile of the employee has a major importance in choosing the activity model, as observed (Bailyn, 1988; Bailey and Kurland, 2002), either traditional or virtual, adapted to the new reality. According to the mentioned studies, the people who enjoy a higher degree of autonomy and have an advanced level of knowledge, require a reduced coordination from the employers, which facilitates the activities in telework system. Moreover, the pro-active attitude and organizational commitment are two other components that positively influence the ability to adapt. The need to balance the time for professional activities with the one dedicated to the family is a relevant constraint factor for employees who face a large volume of activity, which can lead to a state of physical and mental exhaustion, a phenomenon known in the literature as “burnout” (Sardeshmukh, et al., 2012). However, the study conducted by Bloom et al. (2015) on the Chinese experiment, shows a positive correlation between employee satisfaction, due to the high degree of acceptance of the telework model and the performance of the organization. Adaptability, assessed in the study on the Chinese employees, depends on the lifestyle changes. The advantages and disadvantages of the telework system have been analyzed in various works (Cailler, 2016; Morono-Cerdan, 2017; Lister and Harnish, 2019).

The analysis model for the performance of organizations according to the ability to adapt to the telework system is based on the information systems theory developed by Fred Davis and Richard Bagozzi (Davis, 1989; Bagozzi, et al., 1992). According to the theory developed by Davis (1989), the ability to adapt to new technology is conditioned by the ease of use of the technological system and the usefulness of the computer system, based on a behavioral intention, which influences users' decision on how and when they will use this

technology. The usefulness perceived by Fred Davis was defined as a determining factor for his work performance.

The acceptance model of the new technology has been continuously studied and extended (Venkatesh and Davis, 2000; Venkatesh, et al., 2003; Venkatesh and Bala, 2008; Negrutiu, et al., 2020). The limitations of this model were highlighted by Bagozzi (2007), who observes that the performance of an organization does not depend exclusively on independent variables designed by Davis and adds new causal relationships, which define process variables, based on social, cultural, or group aspects, in the form of collective intentions (Bagozzi and Lee, 2002) or based on attitude, which can generate a certain type of behavior (Bagozzi, 2006).

## **2. Description of the research hypotheses and the structural model**

Statistical hypotheses were determined from the literature. The psychological profile of the employee and his degree of training, in terms of the educational factor, are relevant in determining the ability to adapt and implicitly influences the productivity of his work, because of the impact due to the ability to solve professional tasks autonomously, implicitly generating increased satisfaction (Stanton, et al., 2002).

Also, another component of the profile variable is given by the conflict between the time spent with the family and the time dedicated to professional activities, which can overlap in the telework system, generating a potential stress for the employees who must perform several tasks simultaneously (Gajendran and Harrison, 2007; Dinu and Nedelcu, 2015). It is to be noted that the specifics of the activity sector and the legislative regulations are particularly important for stimulating telework (Milasi, et al., 2021). During the pandemic crisis (Forsythe, et al., 2020) observes that the unemployment rate increased for those professions that could not adapt to the new system, due to sectoral peculiarities. We note that not only systemic variables, which derive from the characteristics of the computer system, such as the usefulness of the IT system and ease of use, conceptualized by Fred Davis, could influence the ability to adapt to the telework system. Moreover, the relative absence of telework in many advanced economies suggests that the rapid development of the accessible and efficient information technology is not the only criterion for the preponderance of professional activities in the telework system. For example, Brenke (2016) argued that 40% of jobs in Germany could be technically transformed through telework, but nevertheless, the rate of adoption of telework in Germany was only 12%, statistics being made in 2014.

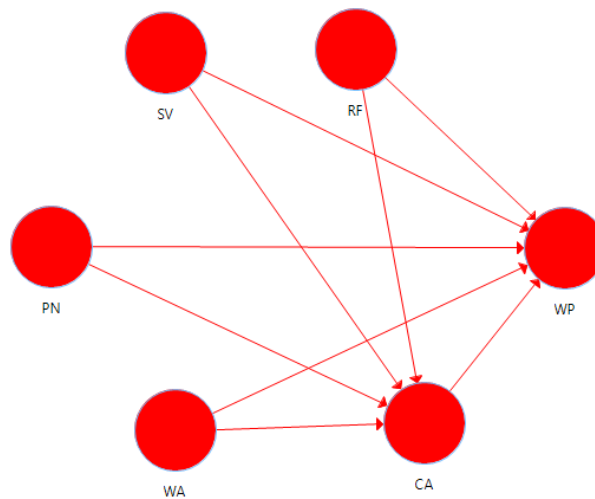
In the context of the COVID-19 pandemic, the variable that determines the transition to telework is represented by regulation, by adopting the legislative framework at national level, which confirms the theory of Bagozzi (2007), who highlighted that the variables developed by Davis are not enough and should be supplemented with variables that define the social, legal, economic and cultural context, to highlight the purpose of the process of adapting a community to the telework system, respectively the need to protect health by avoiding activities in public space, to limit the spread of the pandemic. In order to derive an economic model of the impact of the organizational commitment on the performance of the use of telework, starting from Fred Davis' model, adapted to Bagozzi's critics, in the literature review context, the following five statistical hypotheses were formulated:

- **H1:** Personal psychological, economic and professional needs (NP) needs influence the ability to adapt to the telework system (CA);
- **H2:** The usefulness of the information system and its ease of use (LV) have a positive impact on the ability to adapt to the telecommuting system (CA);
- **H3:** Regulation of the telework system (CR) influences the ability to adapt to the telework system (CA);
- **H4:** The pro-active attitude towards the work performed in telework (AM) positively influences the ability to adapt to the telework (CA) system;
- **H5:** The ability to adapt to the telecommuting system (WA) positively influences the performance of the organization (WP).

The last hypothesis integrates the relationships presented in the previous objectives and postulates the mediation model, formulated in the following hypothesis:

- **H6:** The ability to adapt to the telework system mediates the relationship between NP, VS, CR and WA and the performance of the organization.

The independent and dependent variables described in the following section led to the formation of the structural model (figure no. 1).



**Figure no. 1. The structural model that incorporates the impact assessment regarding the development of professional activities in the telework system in the organizational performance model**

In the next section the structural model will be tested and then validated.

**3. Research Methodology**

The main objective of this article is to validate the conceptual model by a quantitative research method, namely a survey based on a questionnaire, and the data analysis was performed using structural equations modelling. The paper also analyzes the impact of the

econometric model, presented in the next section, represented by personal psychological, economic, and professional needs, system variables and the regulatory framework.

To collect the data necessary to test the research hypotheses, a survey was organized, using a questionnaire with both open and closed questions. Data collection took place between October 1 and November 30, 2020. The main problem related to data collection was the reluctance of respondents to complete the questionnaires. To avoid these concerns, personal data was deleted, and the information was presented in an aggregate format.

In the sample, both managers and employees, project coordinators, were selected to have a broader perspective on organizational performance in terms of conducting professional activities in the telework system. In the case of an unknown population, it is considered that (Kadam and Bhalerao, 2010), for maximum permissible error of  $\pm 3\%$  and a 95% confidence interval, the volume of a sample must be of at least 385 respondents. Thus, for this study, data were collected from 520 respondents, having 485 valid and 35 incorrectly filled or incomplete questionnaires. A 7-point Likert scale was used for the response options, where the response options were between "very little = 1" and "very much = 7". The questionnaire was pre-tested to ensure that the language, format, and order of the questions were appropriate.

The questionnaire was addressed to employees of companies that provide financial consultancy in Romania. This sector was chosen because it one of the sectors with the highest degree of investment in labor and a good potential for rapid adaptation to the telework system. The selected companies in the analyzed sector are among the most important in Romania and the respondents were selected by a non-probabilistic sampling method, mainly due to the social distancing measures imposed by the COVID-19 pandemic conditions.

Starting from the models described in the literature, the following six proxy variables were considered success factors in terms of implementing the model: personal psychological, economic, or professional needs, the usefulness and ease of use of the information system, regulation of the legislative framework to national or sectoral level, the attitude towards the activities carried out in the telework system, ability to adapt to telework and organizational performance. The scale used to describe the items was Likert in 7 points. Table no. 1 shows the items for the six constructs and their corresponding references.

**Table no. 1. Measurement scales**

Symbol	No. of items	References
<b>Personal needs (PN)</b>	6	Gajendran and Harrison, 2007; Sardeshmukh, et al., 2012; Lister and Harnish, 2019; Raišienė, et al., 2020;
<b>System variables (SV)</b>	3	Venkatesh and Davis, 2000; Venkatesh, et al., 2003; Venkatesh and Bala, 2008.
<b>Regulatory framework (RF)</b>	3	Bagozzi, 2007; Forsythe, et al., 2020; Milasi, et al., 2021.
<b>Work attitude (WA)</b>	3	Bailyn, 1988; Bailey and Kurland, 2002; Kuscu and Arslan, 2016 Raišienė, et al., 2020.
<b>Ability to switch to the teleworking system (CA)</b>	4	Davis, 1989; Bagozzi, et al., 1992; Kuscu and Arslan, 2016.
<b>Organization performance (WP)</b>	4	Davis, 1989; Bagozzi, et al., 1992; Bloom, et al., 2015.

*Source: Determined by the authors according to the mentioned references*

In the questionnaire were also included some demographic questions to describe the structure of the sample (field of activity, hierarchical position within the organization, work experience, etc.).

The variables in the model were divided into independent and dependent variables. The independent variables are described in Table no. 2, and the dependent ones in Table no. 3.

**Table no. 2. Description of the independent variables in the model**

<b>1. Personal economic or professional needs (PN)</b>	
<b>PN_1</b>	The importance given to the professional career.
<b>PN_2</b>	The importance given to the free time spent with the family.
<b>PN_3</b>	Existence of financial resources that could compensate for the lack of remuneration.
<b>PN_4</b>	Age category in which the employee falls.
<b>PN_5</b>	Employee education: secondary, university, postgraduate studies.
<b>PN_6</b>	Existence of bank loans contracted during the activity within the organization.
<b>2. System variables (SV)</b>	
<b>SV_1</b>	Existence of computer equipment adequate to carry out the telework activity.
<b>SV_2</b>	The usefulness of the information system favors the development of professional activities.
<b>SV_3</b>	The ability to use the computer system easily favors the development of professional activities in the telework system.
<b>3. Regulatory framework (RF)</b>	
<b>RF_1</b>	Existence of a legislative framework that allows the development of telework.
<b>RF_2</b>	The sectoral specificity is likely to facilitate the activities carried out in telework.
<b>RF_3</b>	Existence of an organizational protocol that allows the development of telework.
<b>5. Work attitude (WA)</b>	
<b>WA_1</b>	Pro-active attitude for the work done - organizational commitment.
<b>WA_2</b>	The existence of states of stress or the feeling of pressures in solving your tasks.
<b>WA_3</b>	Negative attitude for the work done - isolation, anxiety.

The independent variables described in Table no. 2 will be the latent variables of the model, while the reflexive dependent variables are the ability to adapt to the telework system and the company's performance during the pandemic for sectors that can adapt to the telework system, depending on organizational commitment, defined by independent variables.

**Table no. 3. Dependent variables description**

<b>1. Ability to switch to the teleworking system</b>	
<b>CA_1</b>	The need to comply with health protection regulations during the pandemic.
<b>CA_2</b>	Personal work safety needs.
<b>CA_3</b>	Economic needs regarding the need to continue professional activities.
<b>CA_4</b>	The reliability of the IT system allows the organization of telework activities.
<b>2. Organization performance</b>	
<b>WP_1</b>	I can finish my work faster by working from home.
<b>WP_2</b>	Working from home is less stressful.
<b>WP_3</b>	Quality and volume of work performed in the telework system.
<b>WP_4</b>	Reduced costs associated with office maintenance.



To analyze the impact of the development of professional activities in the telework system, a quantitative research based on a survey was performed, using a questionnaire. The statistical hypotheses, described above, were tested by the Partial Least Square - Structural Equation Modeling (PLS-SEM) method, and the data were analyzed using the SmartPLS 3.3.2 statistical software (Ringle, 2015). The PLS-SEM method was used for data analysis to the detriment of other similar methods, such as "Covariance Based - Structural Equation Modeling" (CB-SEM), because it is more robust and at the same time less sensitive to asymmetric distributions, small samples, or the presence of multicollinearity (Hair, et al., 2017).

**4. Results and discussions**

The distribution of the respondents in the sample, depending on the position they hold within the selected company, is indicated in table no. 4.

**Table no. 4. Sample distribution**

Position within the organization	Number of the respondents
Employees	290
Managers	195
Total	485

As it could be noted from the above table, the sample consisted of 485 managers and employees from the analyzed companies, stratified by gender, income, age and level of education, the questionnaire containing 35 questions.

**4.1. Reliability and validity of the model**

Before the actual analysis of the model, the degree of significance of the variables of the conceptual model will be checked. In this regard, the validity, reliability, and internal consistency of the data collected will be analyzed. Thus, the coefficients "Cronbach's Alpha" and "Dillon-Golsteins'  $\rho$ " will be calculated and interpreted (Tenenhaus, et al., 2005). In table no. 5 we could observe the values of these indicators.

**Table no. 5. Evaluation of the measurement model**

Variabile	Cronbach's Alpha	Dillon Golsteins' rho	Composite Reliability	AVE**	VIF*
PN	0.912	0.742	0.729	0.809	2.312
SV	0.803	0.775	0.738	0.837	1.835
RF	0.745	0.713	0.805	0.792	1.694
WA	0.728	0.708	0.756	0.716	2.614

Note: \*VIF=Variance Inflation Factor, \*AVE = Average Variance Extracted.

Table no. 5 shows that there are no multicollinearity problems between the exogenous variables in the model, as the values of the variance inflation factor (VIF) do not exceed the value 5 (Hair, et al., 2013). In addition, the values of the "Dillon-Golsteins'  $\rho$ " and "Cronbach's Alpha" coefficients are above 0.7, which leads to the conclusion that the exogenous variables in the model are statistically significant.

To test the discriminant validity of the model, the *Average Variance Extracted* (AVE) indicator will be used. Thus, the square root of AVE for each latent variable is compared with its inter-construct correlation and if it is greater, then the discriminant validity is confirmed (Fornell and Larker, 1981). These values could be seen in table no. 6.

Table no. 6. Correlation matrix of the latent variables

Latent variables	Square root of AVE*	Correlation coefficients between the latent variables			
		PN	SV	RF	WA
PN	0.899	1	0.708	0.694	0.645
SV	0.915	0.708	1	0.612	0.605
RF	0.890	0.694	0.612	1	0.589
WA	0.846	0.645	0.605	0.589	1

Note: \*AVE = Average Variance Extrated

In table no. 6 it can be observed that the values of the square root of AVE indicator are higher than the inter-construct correlation coefficients for all latent variables in the model, which confirms the discriminant validity of the proposed model.

Convergent validity is also examined if a latent variable explains a statistically significant part of the variation of its Nacaskul constructs (2017). The coefficients of the variables in the measurement model, obtained with the help of the structural equations PLS-SEM can be observed in Figure no. 2.

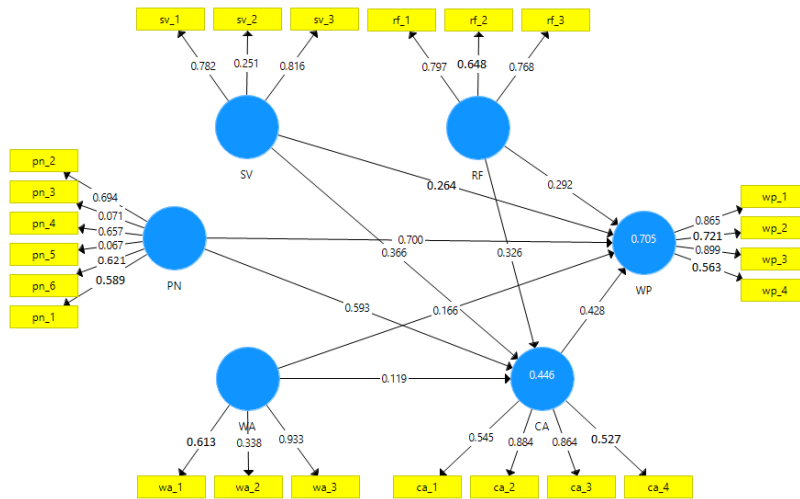


Figure no. 2. PLS-SEM 1 measurement model

Constructs for which the values of the coefficients are less than 0.5 must be excluded from the measurement model (Chin, 2010). Thus, from the model we will exclude the following variables: pn\_3, pn\_5, sv\_2 and wa\_2. After excluding these variables from the model, using the PLS-SEM structural equations, and using the SmartPLS 3.3.2 software, the second measurement model was obtained.

In figure no. 3 it can be noted that all values of the coefficients of the reflexive variables used in the model are higher than 0.5. Thus, all these coefficients are statistically significant, and the validity of the measurement model is confirmed.

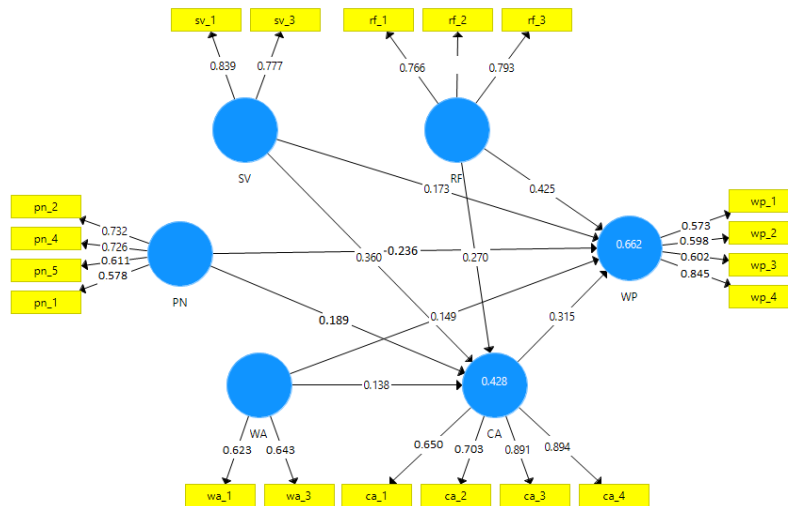


Figure no. 3. PLS-SEM 2 measurement model

The model fit can be assessed using the standardized mean square root (SRMR). According to Hu and Benter (1999), a value of this indicator less than 0.08 indicates a good fit of the model. In Table 7, the SRMR value for the estimated model is 0.052, which validates the fit of the model.

Table no. 7. Model fit

	Estimated model
SRMR*	0.052

Note: \*SRMR = Standardized Root Mean Square Residual

The predictive value of the structural model was firstly evaluated in terms of coefficients of determination ( $R^2$ ), and the values obtained could be seen in Figure 3. Thus, PN, SV, RF, and WA can explain (together) 42.8% of the variance of CA ( $R^2 = 0.428$ ) and 66.2% of that of WP ( $R^2 = 0.662$ ).

#### 4.1. Direct effects analysis

To validate the first 5 hypotheses, the direct effects between CA and its predictors (PN, SV, RF and WA) and between CA and its successor (WP) are presented in table no. 6. Decisions on the acceptance of each hypothesis and the size of the effect ( $f^2$ ) are also included.

In addition, to test the six statistical hypotheses described in the previous section, a Bootstrap Test with 3000 resamples was performed to generate the values of the t-test and the standard error of the model parameters. According to statistical theory, bootstrapping allows the allocation of precision measurements of sample estimates and the calculation of direct and indirect effects, associated t-statistics and bias-corrected confidence intervals (BCI). Table no. 8 presents the results regarding the testing of the statistical hypotheses  $H_1$ - $H_5$ .

Table no. 8. Results of testing direct statistical hypotheses (H<sub>1</sub>-H<sub>5</sub>)

Hypothesis	Coefficients (β)	Standard Error (SE)	t-value	f <sup>2</sup>	Decision
H <sub>1</sub> : PN → CA	0.189*	0.068	2.435	0.063*	Accept
H <sub>2</sub> : SV → CA	0.360***	0.078	5.745	0.365***	Accept
H <sub>3</sub> : RF → CA	0.270**	0.064	4.215	0.131**	Accept
H <sub>4</sub> : WA → CA	0.138**	0.043	2.692	0.205***	Accept
H <sub>5</sub> : CA → WP	0.315***	0.059	4.727	0.389***	Accept

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ;  $\beta$  = standardized coefficients; SE = standard error;  $f^2$  = effect dimension.

From the analysis of the direct results, it results that PN has a positive and significant impact on CA ( $\beta = 0.189$ ;  $p < 0.05$ ). In addition, the size of the effect of ( $f^2$ ) PN on CA (modification of  $R^2$  if PN were excluded from the model) is moderate ( $f^2 = 0.063$ ;  $p < 0.05$ ) (Cohen, 1988). This result indicates the importance of personal needs in terms of employees' ability to adapt to telework.

Regarding the impact of SV on CA ( $\beta = 0.360$ ;  $p < 0.001$ ), we notice that it is positive and statistically significant, and the size of the effect of SV on CA is high ( $f^2 = 0.365$ ;  $p < 0.001$ ). In other words, system variables play a positive role in the ability of employees to adapt to telework.

At the same time, we observe a positive and statistically significant coefficient between RF in CA ( $\beta = 0.270$ ;  $p < 0.01$ ) and an average level effect size ( $f^2 = 0.131$ ;  $p < 0.05$ ). These results suggest that the level of telework regulation plays an important role in terms of the ability of employees to adapt to the work of telework.

Given that WA has a significant and direct impact on CA ( $\beta = 0.138$ ;  $p < 0.01$ ), while the size of the WA effect on CA is average ( $f^2 = 0.205$ ;  $p < 0.001$ ), we can say that the attitude of employees towards work is a decisive factor in terms of their ability to adapt to telework.

Finally, the positive and semi-significant coefficient between CA and WP ( $\beta = 0.315$ ;  $p < 0.001$ ), means that the ability to adapt to telework conditions has a positive and significant impact on the organization's performance. The high value of the reflexive variable, namely "Quality and volume of work performed in the telework system", implies that the performance of the organization is well represented by this indicator.

4.2. Mediation analysis

In addition to the direct relationship with its antecedents and outcomes, we assumed that CA mediates the relationship between PN, SV, RF, WA, and WP. Table no. 9 presents the specific direct and indirect effects (CA, as mediator), as well as the associated corrected confidence intervals, obtained by the bootstrap procedure (Nitzl, et al., 2016).

Table no. 9. Results of testing direct and indirect statistical hypotheses (H<sub>6</sub>)

Structural effects	Direct effects	Indirect effects. MV: CA		
		Coefficients	Lower 95%	Upper 95%
PN→WP	0.236***	0.125**	0.025	0.225
SV→WP	0.173***	0.095*	0.030	0.160
RF→WP	0.425***	0.321***	0.210	0.432
WA→WP	0.149**	0.086*	0.014	0.158

Notă: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; MV = mediator;  $\beta$  = standardized path coefficients; 95% BCI = bias-corrected confidence intervals.

Given the direct positive effect of PN ( $\beta = 0.236$ ;  $p < 0.001$ ) on WP and the specific positive indirect effects of CA ( $\beta = 0.125$ ; 95% BCI = [0.025; 0.225]) we can conclude that CA mediates the relationship between PN and WP. Therefore, the intrinsic positive effects of personal psychological, economic, or professional needs on employee performance will be stronger if companies invest in the personal needs of employees. The direct positive effect of SV ( $\beta = 0.173$ ;  $p < 0.001$ ) on WP and the specific positive indirect effects by CA ( $\beta = 0.095$ ; 95% BCI = [0.030; 0.160]) we can conclude that CA mediates the relationship between SV and WP. Therefore, the intrinsic positive effects of the variables of CA employee performance will be stronger if companies invest in IT systems and equipment to carry out their professional activities in the telecommuting system. Based on the positive effect of RF ( $\beta = 0.425$ ;  $p < 0.001$ ) on WP and the specific positive indirect effects through CA ( $\beta = 0.321$ ; 95% BCI = [0.210; 0.432]) we can conclude that CA mediates the relationship between RF and WP. Therefore, the intrinsic positive effects of the regulatory framework on the performance of employees will be stronger if organizations establish an appropriate framework for telework and if at national or sectoral level the possibility of carrying out teleworking activities is provided. On the other hand, the direct positive effect of WA on WP ( $\beta = 0.149$ ;  $p < 0.01$ ), as well as specific positive indirect effects through CA ( $\beta = 0.086$ ; 95% BCI = [0.014; 0.158]), support CA mediation in relation to WP, thus establishing the positive attitude of employees towards the work done in telework determines the increase of the company's performance.

Therefore, empirical data confirm hypothesis H<sub>6</sub>.

## Conclusions

The research results suggest that personal psychological and social needs, system variable, work attitude, degree of regulation and ability to adapt to telework have a direct and significant impact on the performance of organizations. Moreover, analyzing the mediating effect of employees' ability to adapt to telework, it was found that it mediates the relationship between independent variables in the model and the performance of organizations. The results of this study are in line with similar results of other authors (Ranf, et al., 2021; Okubo, et al., 2021; Tokarchuk, et al., 2021).

The research takes place at a time when Romania is facing the COVID-19 pandemic, which has given the chance to analyze the variables of the model in the context of the remote work. A crisis like this pandemic increases the need for employees to adapt to telework, as evidenced by the results of this study, validating the theory by Bagozzi (2007).

So far, the subject of telework system performance has been studied in the absence of imperative criteria, such as the need for health protection during the pandemic, by regulating the framework for telework, which is why not many studies have addressed this theme, which gives the work new values, studied by its immediate applicability within organizations. On the other hand, this context also involved some limitations of the research associated with the online surveys, such as the use of a non-probabilistic sampling method, with consequences for the structuring of the sample.

Also, the relatively small number of respondents to the survey, constructs, and reflexive variables, but also the subjective responses of the respondents could be seen as caveats for the scope of the study. These limitations could be overcome in further studies by increasing the volume of the sample and balancing it at the structural level, as well as by increasing

the number of constructs and reflexive variables, while adding open-ended questions in the survey.

Further studies in the field of modeling activities carried out in telework on the performance of organizations could be extrapolated to other professional fields and the research could also capture some probable macroeconomic effects. Moreover, future research could look at changes in respondents' work habits during the pandemic to develop the current model. Nevertheless, future research could consider the construction of other models for evaluating organizational performance in carrying out professional activities in the telework system.

The paper could be a starting point for in-depth analysis of the dynamics of the digital markets, in terms of performance of the online platforms used by operators, in the context of the transition to the remote working system, given that more and more users take benefits of the virtual environment, through time and cost savings, as well considering the risks posed by the transition to the new virtual model.

### References

- OECD, 2020. *Which countries work the longest hours?* [online] Worlds Economic Forum, Available at: <<https://www.oecd.org/coronavirus/policy-responses/productivity-gains-from-teleworking-in-the-post-covid-19-era-a5d52e99/>> [Accessed 20 January 2021].
- Bailyn, L., 1988. Freeing work from the constraints of location and time. *New Technology, Work and Employment*, 3(2), pp.143-152.
- Bailey, D.E. and Kurland, N.B., 2002. A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(4), pp.383-400.
- Bagozzi, R.P., 2006. Explaining consumer behavior and consumer action: From fragmentation to unit. *Seoul Journal of Business*, 12(2), pp.111-143.
- Bagozzi, R.P., 2007. The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), p.3.
- Bagozzi, R.P. and Lee, K.H., 2002. Multiple routes for social influence: The role of compliance, internalization, and social identity. *Social Psychology Quarterly*, pp.226-247.
- Bagozzi, R.P., Davis, F.D. and Warshaw, P.R., 1992. Development and test of a theory of technological learning and usage. *Human Relations*, 45(7), pp.659-686.
- Bloom, N., Liang, J., Roberts, J. and Ying, Z.J., 2015. Does working from home work? Evidence from a Chinese experiment. *The Quarterly Journal of Economics*, 130(1), pp.165-218.
- Brenke, K., 2016. Home Office: Möglichkeiten werden bei weitem nicht ausgeschöpft. *Diw Wochenbericht*, 83(5), pp.95-105.
- Chin, W.W., 2010. *How to write up and report PLS analyses*. In *Handbook of Partial Least Squares (655-690)*. Berlin, Heidelberg: Springer.
- Cohen, J., 1988. *Statistical power analysis for the behavioral sciences*. 2nd ed. NY: Lawrence Erlbaum Associates.
- Davis, F.D., 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), pp.319-340.

- Dinu, V. and Nedelcu, M., 2015. The relationship between the audit committee and the financial performance, the asset quality and the solvency of banks in Romania. *Transformations in Business & Economics*, 14(2), p.35.
- ECB, 2020. *European Annual Report 2020*, [online] Available at: <<https://www.ecb.europa.eu/pub/annual/html/ar2020~4960fb81ae.en.html>> [Accessed 20 March 2021].
- Fornell, C. and Larcker, D.F., 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(1), pp.382-388.
- Forsythe, E., Kahn, L.B., Lange, F. and Wiczer, D., 2020. Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims. *Journal of public economics*, 189, 104238.
- Gajendran, R.S. and Harrison, D.A., 2007. The good, the bad, and the unknown about telecommuting: meta-analysis of psychological mediators and individual consequences. *Journal of applied psychology*, 92(6), 1524.
- Hair, J.F., Hult, G.T., Ringle, C.M. and Sarstedt, M., 2017. *A primer on partial least squares structural equation modeling (PLS-SEM)*. 2nd ed. Thousand Oaks: SAGE.
- Hu, L.T. and Bentler, P.M., 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), pp.1-55.
- Kuscu, M. and Arslan, H., 2016. Virtual leadership at distance education teams. *Turkish Online Journal of Distance Education*, 17(3), pp.136-156.
- Lister, K. and Harnish, T., 2011. The state of telework in the US: How individuals, business, and government benefit. *Telework Research Network*, 1, pp.1-27.
- Meroño-Cerdán, A.L., 2017. Perceived benefits of and barriers to the adoption of teleworking: Peculiarities of Spanish family firms. *Behaviour & Information Technology*, 36(1), pp.63-74.
- Milasi, S., González-Vázquez, I., and Fernández-Macías, E., 2021. *Telework before the COVID-19 pandemic: Trends and drivers of differences across the EU*. OECD Productivity Working Papers. Paris: OECD Publishing.
- Nacaskul, P., 2017. Financial Risk Management and Sustainability. *The Sufficiency Economy Philosophy Nexus*, [online] Available at: <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3057886](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3057886)> [Accessed 15 December 2020].
- Negruti, C., Dinu, V., Vasiliu, C. and Bădescu, R., 2020. Sharing economy and entrepreneurship: A case study from Romania. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. *6th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Messina, Italy, 4-6 June 2020. Bucharest: ASE, pp.291-297.
- Okubo, T., Inoue, A. and Sekijima, K., 2021. Teleworker performance in the COVID-19 era in Japan. *Asian Economic Papers*, 20(2), pp.175-192.
- Ranf, D.E., Mănescu, G. and Badea, D., 2021. Specific business continuity management practices during the COVID-19 pandemic crisis. *Land Forces Academy Review*, 26(1), pp.62-68.
- Raišienė, A.G., Rapuano, V., Varkulevičiūtė, K. and Stachová, K., 2020. Working from Home-Who is Happy? A Survey of Lithuania's employees during the COVID-19 quarantine period. *Sustainability*, 12(13), 5332.
- Ringle, C.M., Wende, S. and Becker, J.M., 2015. *SmartPLS 3.3.2*. Bönningstedt: SmartPLS GmbH.

- Romanian Government, 2020. *Government Emergency Ordinance, 36/2020*, [online] Available at: <<http://legislatie.just.ro/Public/DetaliuDocumentAfis/224527>> [Accessed 28 December 2020].
- Romanian Presidency, 2020. *Presidential Decree 195/2020. On the institution of the state of emergency on the territory of Romania*, [online] Available at: <<http://legislatie.just.ro/Public/DetaliuDocumentAfis/223831>> [Accessed 22 January 2021].
- Sardeshmukh, S.R., Sharma, D. and Golden, T.D., 2012. Impact of telework on exhaustion and job engagement: A job demands and job resources model. *New Technology, Work and Employment*, 27(3), pp.193-207.
- Stanton, J.M., Sinar, E.F., Balzer, W.K., Julian, A.L., Thoresen, P., Aziz, S., ... and Smith, P.C., 2002. Development of a compact measure of job satisfaction: The abridged Job Descriptive Index. *Educational and psychological measurement*, 62(1), pp.173-191.
- Tokarchuk, O., Gabriele, R. and Neglia, G., 2021. Teleworking during the COVID-19 Crisis in Italy: Evidence and Tentative Interpretations. *Sustainability*, 13(4), 2147.
- Venkatesh, V. and Bala, H., 2008. Technology acceptance model 3 and a research agenda on interventions. *Decision sciences*, 39(2), pp.273-315.
- Venkatesh, V. and Davis, F.D., 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), pp.186-204.
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D., 2003. User acceptance of information technology: Toward a unified view. *MIS quarterly*, pp.425-478.
- Zhang, Y.Z., Yee, L.Q., Ruslan, M.K., Ibrahim, M.N., Kelun, J.N. and Jia, Y., 2020. Telecommute Acceptance and Work Performance: A Multiple Regression Analysis. *International Journal of Innovation and Business Strategy*, 14(2), pp.44-55.