







## *Does employee management influence the continued use of telework after the COVID-19 pandemic?*

### *¿Influye la gestión de los empleados en su decisión de seguir utilizando el teletrabajo después de la pandemia?*

Inés González-González<sup>a,\*</sup>  , María Pilar Martínez-Ruiz<sup>b</sup>  , José Antonio Clemente-Almendros<sup>c</sup>  

*a, c) Universidad Internacional de La Rioja - Logroño - La Rioja (Spain)*

*b) Universidad de Castilla La Mancha - Albacete - Castilla la Mancha (Spain)*

*\* Primary Contact: [ines.gonzalez@unir.net](mailto:ines.gonzalez@unir.net) (Inés González-González)*

#### **Abstract**

This paper analyses the intention of Spanish companies to continue using telework after the end of the COVID-19 pandemic. With this aim, we consider the influence that the management of several variables related to one of the key stakeholders, employees, has on this intention. This line of study is of great interest, given the implications not only for the management of companies, but also for key aspects such as the goals of the 2030 Agenda for Sustainable Development. To this end, we start with a review of the relevant literature on this topic, which allows us to raise various research hypotheses. This is followed by an analysis of a sample of 1,879 Spanish SMEs through a binary logistic regression model, which shows the positive influence of managers' university education and companies' orientation towards innovation on the use of telework after the pandemic.

**Keywords:** SMEs; stakeholders; employees; telework; COVID-19 pandemic

**JEL Classification:** M12; M54; O31

#### **Resumen**

Este trabajo analiza la intención de las empresas españolas de seguir utilizando el teletrabajo tras el fin de la pandemia del COVID-19. Con este objetivo, consideramos la influencia que tiene en esta intención la gestión de diversas variables relacionadas con uno de los principales grupos de interés, los empleados. Esta línea de estudio es de gran interés dada la implicaciones no solo para la gestión de las empresas, sino también para aspectos clave como los objetivos de la Agenda 2030 para el Desarrollo Sostenible. Para ello, partimos de una revisión de la literatura relevante sobre este tema, lo que nos permite plantear diversas hipótesis de investigación. A continuación, se analiza una muestra de 1.879 pymes españolas mediante un modelo de regresión logística binaria, que muestra la influencia positiva de la formación universitaria de los directivos y la orientación a la innovación de las empresas en el uso del teletrabajo tras la pandemia.

**Palabras clave:** PYMEs; grupos de interés; empleados; teletrabajo; Pandemia de la COVID-19

**Clasificación JEL:** M12; M54; O31

#### How to cite this article

González-González, I., Martínez-Ruiz, M. P., & Clemente-Almendros, J. A. (2022). Does employee management influence the continued use of telework after the COVID-19 pandemic?. *Small Business International Review*, 6(2), e537. <https://doi.org/10.26784/sbir.v6i2.537>

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## 1. Introduction

The current global situation is characterized by great uncertainty at the international level, resulting from, among other things, the COVID-19 pandemic declared by the World Health Organization (WHO) in March 2020 (Raghavan et al., 2021). The outbreak of the COVID-19 pandemic has had a direct and protracted impact not only on public health systems, but also on government finances, resulting in serious harm to the global economy. Among other issues, the impact was of such magnitude that it led to many companies going bankrupt in various sectors (Tucker, 2020), especially small and medium-sized enterprises (SMEs) due to their greater vulnerability (Bartik et al., 2020). This situation poses considerable challenges for decision-makers in companies, as they are subject to extreme pressure, and their final decisions will have far-reaching consequences for the future of the global economy (Murugan et al., 2020). The scenario described is completely unprecedented, rendering the forecasts made for the Spanish economy just a couple of years ago totally useless. Similarly, some of the business strategies used in the past or that worked in previous economic crises are no longer helpful (e.g., Bauzá & Melgosa, 2020; CincoDías, 2021; Economía Digital, 2020).

In this context, among the different measures adopted by companies around the world in order to face this situation, the use of telework stands out (Eurofound, 2020; Milasi et al., 2021; Raghavan et al., 2021). Although the number of people teleworking part-time or full-time had been gradually increasing over the years prior to the outbreak of the virus, the pandemic has undoubtedly contributed to accelerating the use of different forms of telework, especially to ensure business continuity (International Labour Organization, 2020). This is certainly the case in Spain, where many companies have chosen to use telework in order to deal with this situation (Economía Digital, 2020; Gascuña, 2020). In fact, studies have shown that more than 60% of Spanish companies that remained active during the first half of 2020 resorted to telework to try to maintain activity as much as possible, with almost half applying it to over 60% of their workforce (Economía Digital, 2020).

Telework is an element of information and communication technology (ICT) whose adoption can bring significant benefits to businesses in areas as diverse as the management of key stakeholders (Dickson & Clear, 2006; Vitola et al., 2013). Key stakeholders include those groups without whose continued involvement the firm cannot survive (Benn et al., 2016; Clarkson, 1995), such as employees and customers, and who have the power to influence management decisions (Mitchell et al., 1997). The relationship with these stakeholders is undoubtedly key for any organization, as it is a fundamental interface between the organization and various external stakeholders (Da Camara, 2006; Davies & Miles, 1998; Schultz et al., 2001).

In general (although more evident in service environments), it is observed that customer decisions are significantly influenced by the behavior of employees and by their perception of the organization. Not surprisingly, employees can contribute, among other aspects, to the construction of the brand, helping to unite the internal culture with the brand identity (de Chernatony, 1999). For this reason, employees' assumptions, values, attitudes, and beliefs can potentially influence purchasing decisions and customer relationships with the organization. Indeed, the relationship between positive employee behavior and higher levels of customer satisfaction, as well as other organizational outcomes, has been observed in certain contexts (e.g., Da Camara, 2006).

Based on these ideas, the aim of this research is to analyze the intention of Spanish companies to continue using telework once the pandemic is over, while considering the influence that the management of one of the key stakeholders, that of employees, is likely to have on this intention. This line of study is undoubtedly of great interest, since the use of telework can have important repercussions not only on the management of companies, but also on such key aspects as the various goals of the 2030 Agenda for Sustainable Development, especially goals eight, nine, eleven, and twelve. Therefore, the main contribution of this study is due to its novelty, since it is the first to show how a correct management of the variables that contribute to employee engagement may encourage the use of telework in SMEs, even though the COVID-19 pandemic has ended. In addition, it is verified that if a manager has a university education, then this not only has a positive impact on the intention to continue using telework, but also a positive and significant impact on the performance of employees in relation to competitors.

In the following section, the outline of the research will be described. The relevant literature on employee management and its influence on the intention to use telework post-pandemic will then be presented. This review will enable the various research hypotheses to be developed. Subsequently, the empirical research will be presented, which was carried out after collecting data on 1,879 Spanish SMEs and applying binary logistic regression models. After describing the main results, the article concludes by summarizing the main conclusions, limitations, and future lines of research.

## 2. Literature review

This section will present a review of the relevant literature in order to highlight the influence that the management of the key employee stakeholder group is likely to exert on the future use of telework as a consequence of the COVID-19 pandemic.

### 2.1. The influence of CEO/manager training on the intention to continue using telework after the pandemic

More and more literature supports the influence of the CEO or manager on employee motivation (e.g., Carrasco Hernández, et al., 2014). Managers play a crucial role within a company as they are responsible for making the most important decisions (Bañón & Sánchez, 2008) and therefore must have the necessary knowledge and skills that allow them to make the right choices; in fact, a lack of managerial skills constitutes one of the main causes of failure in companies (Ahire & Golphar, 1996). In this regard, Kowalski and Swanson (2005) identified three critical success factors in the integration of telework, including the support of top management. It was noted that appropriate technological support from senior management was critical, especially in terms of the required levels of training and management (Haines III et al., 2002; Karia & Asaari, 2016).

In this sense, level of education is one of the main indicators of whether a manager has the appropriate knowledge and skills to make strategic decisions that successfully adapt to the environment. In fact, some studies (e.g., Martin & Staines, 1994) have observed the existence of a direct relationship between a manager's level of education and performance levels. Moreover, the higher the level of the manager's education, the higher the employees' work motivation (Carrasco Hernández, et al., 2014). These ideas allow us to propose the following hypothesis:

**H1:** *CEO/manager's university education has a positive influence on the likelihood of continuing to use telework after the COVID-19 pandemic.*

### 2.2. The influence of employee management in general on the intention to continue using telework after the COVID-19 pandemic

The full impact of the COVID-19 pandemic on labor markets is yet to be determined. However, the use of telework is likely to remain significantly higher than before the start of the pandemic (Eurofound, 2020; International Labour Organization, 2020). Employers will therefore need to consider the perspectives of workers in relation to the challenges and opportunities that telework presents for them, in terms of role type, skills, family, living situation, etc. (International Labour Organization, 2020).

Prior to the pandemic, many implications of the use of telework had been noted in relation to various aspects of employee management. To mention just a few, it is first worth noting how, under normal circumstances, the benefits of telework include reduced commuting time and a greater opportunity for workers to focus on their work tasks away from the distractions of the office. There are also potential direct and indirect benefits for teleworkers, such as reduced travel expenses (e.g., fuel, parking, and public transport), reduced commuting times, increased productivity, flexible working hours, reduced noise and stress in the office, and increased mentoring opportunities (International Labour Organization, 2020; Vitola et al., 2013), resulting in more time for family, friends, and hobbies, as well as improving the employees' work-life balance (Bailey & Kurland, 2002; Eurofound, 2020; International Labour Organization, 2020; Vitola et al., 2013).

Secondly, by promoting a better match between workers' needs and the ability to satisfy them, telework may offer more opportunities for worker satisfaction (Bhattacharya et al., 2005; Pérez et al., 2002). Thus, the use of telework can positively influence firm performance, a result consistent with the relevant literature on human resource flexibility, especially that which shows how workers are more likely to feel satisfied when they are allowed to adjust tasks to meet their needs and wants. Indeed, some results (Pérez et al., 2002) indicate that telework is more positively related to firm performance than other dimensions of work flexibility, supporting other studies that found a superior differential effect of telework compared to other dimensions of work flexibility.

The above arguments allow us to propose the following hypothesis about the influence of variables related to employee management on the intention to use telework after the end of the pandemic:

**H2:** *Employee management positively influences the likelihood of continuing to use telework after the COVID-19 pandemic.*

### 2.3. The influence of employee performance indicators relative to competitors on the intention to continue using telework after the COVID-19 pandemic

In general, it has been observed that employee performance indicators and telework are often related. Indeed, increased employee productivity is often one of the most important arguments for companies considering the introduction of telework (Nakrošienė et al., 2019). Not surprisingly, teleworkers may become more productive as they will have more time to devote to their work and are exposed to fewer distractions from co-workers (Golden et al., 2008; Martínez-Sánchez et al., 2006; Tremblay & Genin, 2007). In addition, telework can constitute a business strategy that contributes to the improvement of employee efficiency and motivation (Aquiñe Niño de Guzmán, 2018). In fact, telework may come to be seen by employees as a privilege, resulting in higher employee motivation and increased job performance (Jackson et al., 2021).

These arguments help to understand why companies have been increasingly considering telework as an asset that contributes to improving, among other aspects, the global competitiveness of companies in relation to their competitors (Kanellopoulos, 2011; Karia & Asaari, 2016). Telework can contribute to strengthening the innovative capacity of an organization to obtain a sustainable advantage over time in its corresponding competitive environment (Karia & Asaari, 2016). Therefore, those companies with fewer favorable employee performance indicators in relation to their competitors may show a higher tendency to use telework once the pandemic is over, an argument that, on the other hand, could lead us to raise the following research hypothesis, related to the intention to continue using telework after the pandemic when the company starts with more favorable employee performance indicators compared to its competitors:

**H3:** *The management of employee performance indicators relative to competitors has a negative influence on the likelihood of continuing to use telework after the COVID-19 pandemic.*

### 2.4. The impact of the level of innovation on the intention to continue using telework after the COVID-19 pandemic

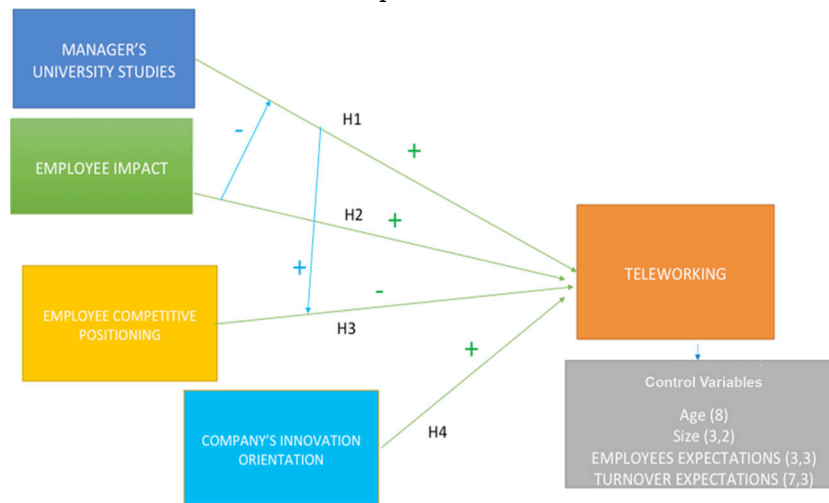
In general, the innovativeness of firms using telework depends on the resources, both tangible and intangible, available to them. In order to use telework, companies have to make certain investments in technologies, which is related to the innovative capacity of companies to achieve sustainable competitive advantages over time (Karia & Asaari, 2016). In this sense, the outbreak of the COVID-19 pandemic accelerated the trend towards innovation and digital transformation that had already been observed in previous years. Over the last few years, innovation has become a fundamental and strategic activity for the performance of organizations, as well as the driving force behind the transformation and growth of companies, enabling the use of resources for obtaining greater economic, reputational, and even social benefits. Indeed, innovation has emerged as a factor that allows improved labor productivity. Innovation is understood to be the development not only of new products and services, but also new work processes leading to an increase in labor productivity and, consequently, economic growth (Kazekami, 2020).

In this sense, the relevant literature allows us to observe how telework is suitable for the realization of various innovative activities for the organization, from the development of various software programs (e.g., Edwards & Edwards, 1995) to the development of new services (e.g., Martínez-Sánchez et al., 2006). Furthermore, telework can also be considered one of the most innovative options available to organizations, as the most agile companies are those that tend to adapt better to the pressures that may occur in the reference environment, and will therefore be more willing to use telework (Pyöriä, 2011; Sanchious, 2022). Therefore, it is observed that the more innovative companies are, the more likely they are to use telework (Jones et al., 2013), and so we may propose the following research hypothesis:

**H4:** *Innovation propensity has a positive and significant influence on the likelihood of continuing to use telework after the COVID-19 pandemic.*

The following Figure 1 summarizes the different hypotheses proposed in this work:

**Figure 1.** Proposed model with indication of variables and relationships between variables



Source: Authors

## 3. Methodology

### 3.1. Population, sample, and data collection

The population selected to test the hypotheses is made up of companies located in Spain and with between 6 and 249 employees, i.e., SMEs. The decision to choose SMEs for this work is based on the fact that 95% of the Spanish business fabric is composed of SMEs (National Institute of Statistics, 2021), and so these economic units are the main source of wealth and employment generation. This research did not wish to ignore the importance of SMEs in the Spanish business fabric since, apart from representing 95% of the total number of companies, they are also responsible for 67% of employment generation, with a contribution to the gross domestic product of 57% (National Institute of Statistics, 2021).

The data for testing the hypotheses was collected through telephone interviews with managers of SMEs in Spain during the first half of 2021, within the framework of the research project "Economic impact of COVID-19 on SMEs in Spain", promoted by the "Ibero-American Observatory of MSMEs". In this research project, the design of the questionnaire tried to guarantee at all times an adequate collection of statistical information to test the hypotheses. As in similar studies, different strata (sector, size, and region) were determined and then simple random sampling techniques were applied (Cuevas-Vargas et al., 2022; Feng et al., 2022; Li & Li, 2021; Sarfraz et al., 2021). The sample, once cleaned, totaled 1,879 SMEs, with a sampling error of 3.2% and a confidence level of 95%.

Common-method bias was tested using Harman's one-factor test (Podsakoff et al., 2003; Podsakoff & Organ, 1986). A principal component analysis of all variables in the model shows that there is no dominant factor, confirming that there is no evidence of threat of common-method bias in the results. In addition, early and late respondents were compared to test for possible non-response bias (Armstrong & Overton, 1977). There was also no evidence of significant differences in firm size and age (Chen et al., 2016).

### 3.2. Variables

#### 3.2.1. Dependent Variable

**Intention to continue using telework after the end of the COVID-19 pandemic (TELEWORKING)** : The dependent variable is a dichotomous variable, which takes a value of 1 if the company intends to continue using telework after the end of the COVID-19 pandemic, and 0 otherwise.

#### 3.2.2. Independents and moderating variables

**University studies of the general director or manager of the company (MANAGER'S UNIVERSITY STUDIES)**: This variable is a dummy variable that takes a value of 1 if the general manager has university studies, and 0 otherwise.

**Employee management in general (EMPLOYEE IMPACT)** : This variable is a construct resulting from five-point Likert scale questions (where 1 means *strongly disagree* and 5 means *strongly agree*) regarding the impact of the pandemic on factors related to employee management, such as operational changes in the company, increased outsourcing, cancellation of investments, arrangement of risk management plans, and

adaptation of liquidity management measures (Charbotel et al., 2009; Jiménez-León & Mariño-Lua, 2018). Through a factor analysis of the aforementioned Likert-type questions, the construct was created. The Cronbach's alpha obtained indicates that the model is sufficiently reliable (0.563). Although alpha is considered for values above 0.70, the interpretation of alpha in specific situations - as in the case of the social sciences - is generally more complicated to analyze and interpret, and better levels are accepted (Martínez-Ruiz et al., 2010). The results of the factor analysis satisfy the criteria of construct validity (the Kaiser-Meyer-Olkin measure is 0.673; the significance of Bartlett's test is 0.000; the analysis of the total variance explained shows a first and only factor that explains 37.20% of the variance).

**Employee performance in relation to competitors (EMPLOYEE COMPETITIVE POSITIONING)**. This variable is a construct resulting from five-point scale questions (where 1 means *much worse* and 5 means *much better*) regarding the situation of the company's employee performance indicators in comparison with its direct competitors. Previous studies such as Degago (2014) using this measured. The specific indicators analyzed were the following: efficiency of the production process, profitability, employee satisfaction, and absenteeism. The construct is created in the same way as above. Cronbach's alpha indicates that the model is sufficiently reliable (0.630). The results of the factor analysis satisfy the criteria for construct validity (the Kaiser-Meyer-Olkin measure is 0.672; the significance of Bartlett's test is 0.000; the analysis of the total variance explained represents a first and only factor that explains 47.69% of the variance).

**Company's innovation orientation (COMPANY'S INNOVATION ORIENTATION)**: This variable is a construct resulting from five-point scale questions (where 1 means *not important* and 5 means *very important*), following the same methodology as in the previous constructs, and includes innovations directed at employees, such as changes or improvements in the production process, acquisition of capital goods, and changes or improvements in the organization. In this regard, it is worth noting the study of Siegel and Kaemmerer (1978). Cronbach's alpha indicates that the model is sufficiently reliable (0.750). The results of the factor analysis satisfy the construct validity criteria (the Kaiser-Meyer-Olkin measure is 0.663; the significance of Bartlett's test is 0.000; the analysis of the total variance explained shows a first and only factor that explains 66.78% of the variance).

### 3.2.3. Control Variables

To avoid distorting the analysis of the data as well as any possible problems with the interpretation of the results, the following control variables were included in the model: **company size (SIZE)**, measured by the number of employees; and **company age (AGE)**: measured as number of years the company has been operating; **company expectations in terms of number of employees (EMPLOYEE EXPECTATIONS)**, measured by a three-point scale, where 1 means *decrease*, 2 means *stable*, and 3 means *increase*; and **company's expectations in terms of turnover (TURNOVER EXPECTATIONS)**, measured by a three-point scale, where 1 means *decrease*, 2 means *stable*, and 3 means *increase*.

### 3.2.4. Descriptive statistics

The descriptive statistics and correlations are shown in Table 1.

**Table 1.** Descriptive statistics, correlations and VIF

	Variables	Obs.	Mean	S.D.	1	2	3	4	5	6	7	8	9
1	TELEWORKING	1,859	0.115	0.319	1.000								
2	MANAGER'S UNIVERSITY STUDIES	1,847	0.514	0.499	0.160 (0.000)	1.000							
3	EMPLOYEE IMPACT	1,838	0.000	1.000	0.106 (0.000)	0.095 (0.000)	1.000						
4	EMPLOYEE COMPETITIVE POSITIONING	1,849	0.000	1.000	-0.008 (0.715)	0.051 (0.029)	-0.045 (0.052)	1.000					
5	COMPANY'S INNOVATION ORIENTATION	1,848	0.000	1.000	0.162 (0.000)	0.108 (0.000)	0.270 (0.000)	0.177 (0.000)	1.000				
6	EMPLOYEE EXPECTATIONS	1,855	1.974	0.508	-0.054 (0.019)	-0.061 (0.008)	0.057 (0.014)	-0.142 (0.000)	-0.120 (0.000)	1.000			
7	TURNOVER EXPECTATIONS	1,858	1.828	0.673	-0.062 (0.007)	-0.061 (0.008)	-0.053 (0.021)	-0.121 (0.000)	-0.141 (0.000)	0.371 (0.000)	1.000		
8	AGE	1,869	30.160	20.632	-0.052 (0.023)	0.031 (0.179)	0.018 (0.432)	0.041 (0.075)	-0.002 (0.927)	0.023 (0.312)	0.029 (0.211)	1.000	
9	SIZE	1,877	24.121	36.113	0.124 (0.000)	0.093 (0.000)	0.048 (0.038)	0.044 (0.054)	0.128 (0.000)	-0.109 (0.000)	-0.065 (0.004)	0.142 (0.000)	1.000

As can be seen from the analysis of Table 1, the correlation coefficients are low, ranging between 0.002 and 0.371, and so correlation is not a problem in our sample. The average age of the companies analyzed is around 30 years, and so we have a sample of mature small and medium-sized companies. The average size of the sample is 24 employees, which is considered to be rather high for small and medium-sized companies. The

expectations of the companies in our sample in relation to the evolution of the average number of employees and sales for 2021 are stable for both concepts.

## 4. Empirical method and results

With the data collected, four different binary logistic regression models were performed to test the hypotheses using Stata software. In Model I, the independent variables were regressed on the dependent variable; in Model II, bidirectional moderations were added. The control variables were incorporated into Models III and IV.

The goodness of fit of the model was then analyzed using the following indicators. First, the standard pseudo-R<sup>2</sup> in the logistic regressions is shown, which indicates the overall fit of the model. However, these R<sup>2</sup> should not be analyzed and compared with the Ordinary Least Squares (OLS) R<sup>2</sup>, since in logistic regression these values are usually much lower (Camisón-Haba et al., 2019; Tödtling et al., 2009). Second, the Hosmer-Lemeshow test was performed, where a p-value below 0.05 implies that the model does not fit at a significance level of 5%. Third, the correct classification, measured as a percentage, indicates what proportion of the predicted outcome has been correctly classified. Therefore, the higher the percentage, the higher the model fit.

Table 2 shows the estimated logistic regression coefficients of the proposed models. In both tables, the sequential addition of variables increases the explanatory power of the models. Both goodness-of-fit measures -Hosmer-Lemeshow and Correct Classification- show the high adequacy of the different models.

**Table 2.** Logistic regression coefficients

Explanatory Variables	Model I	Model II	Model III	Model IV
MANAGER'S UNIVERSITY STUDIES	0.974*** (0.166)	1.050*** (0.182)	0.890*** (0.170)	0.962*** (0.186)
EMPLOYEE IMPACT	0.190** (0.075)	0.377*** (0.139)	0.181** (0.078)	0.399*** (0.141)
EMPLOYEE COMPETITIVE POSITIONING	-0.140* (0.076)	-0.360** (0.148)	-0.148* (0.081)	-0.375** (0.149)
COMPANY'S INNOVATION ORIENTATION	0.421*** (0.075)	0.338*** (0.128)	0.372*** (0.078)	0.267** (0.131)
MANAGER'S UNIVERSITY STUDIES x EMPLOYEE IMPACT		-0.274* (0.165)		-0.330** (0.168)
MANAGER'S UNIVERSITY STUDIES x EMPLOYEE COMPETITIVE POSITIONING		0.302* (0.173)		0.322* (0.176)
MANAGER'S UNIVERSITY STUDIES x COMPANY'S INNOVATION ORIENTATION		0.121 (0.159)		0.157 (0.161)
EMPLOYEE EXPECTATIONS			-0.067 (0.169)	-0.051 (0.168)
TURNOVER EXPECTATIONS			-0.192 (0.124)	-0.188 (0.123)
AGE			-0.012** (0.005)	-0.0126** (0.005)
SIZE			0.006*** (0.001)	0.006*** (0.001)
Constant	-2.718*** (0.141)	-2.792*** (0.154)	-2.017*** (0.373)	-2.139*** (0.381)
Observations	1,760	1,760	1,721	1,721
R <sup>2</sup> Nagelkerke	0.098	0.105	0.121	0.130
R <sup>2</sup> McKelvey and Zavoina	0.143	0.168	0.166	0.191
Hosmer-Lemeshow Goodness-of-fit p-value	0.124	0.605	0.495	0.331
Correct classification (%)	88.18%	88.18%	88.32%	88.38%

The analysis in Table 2 shows that having university studies (MANAGER'S UNIVERSITY STUDIES) has a positive and significant effect (with a coefficient of 0.974 and  $p < 0.01$  in Model I, and a coefficient of 0.890 and  $p < 0.01$  in Model III) on the intention to continue using teleworking (TELEWORKING). On the other hand, COMPANY'S INNOVATION ORIENTATION has a positive and significant influence, with a coefficient of 0.421 and  $p < 0.01$  in Model I, and a coefficient of 0.372 and  $p < 0.01$  in Model III. Next, overall employee management (EMPLOYEE IMPACT) also has a positive and significant effect (with a coefficient of 0.190), but with a lower significance (in this case,  $p < 0.10$  in Model I, and a coefficient of 0.181 and  $p < 0.05$  in Model III). Finally, employee performance versus competitors (EMPLOYEE COMPETITIVE POSITIONING) also has a significant, but in this case negative, effect with a coefficient of -0.140 and  $p < 0.10$  in Model I, and a coefficient of -0.148 and  $p < 0.10$  in Model III.

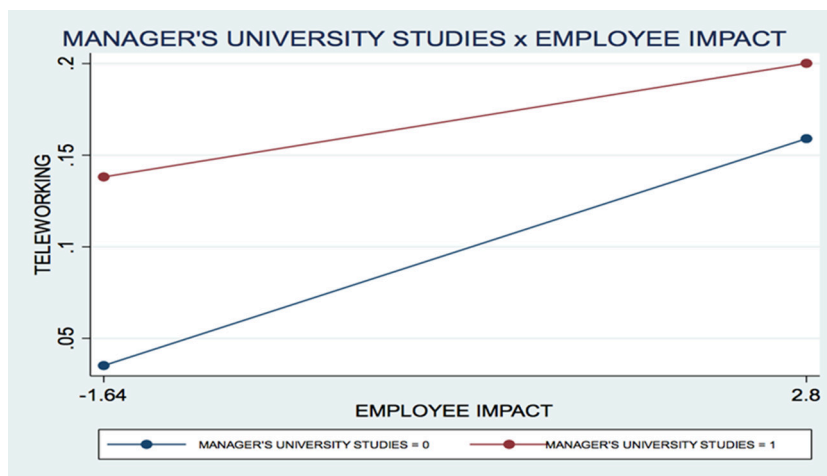
As for the bidirectional moderation, we observe how the moderation coefficients of the variable MANAGER'S UNIVERSITY STUDIES show the following relationships:

i) a significant and negative (i.e., inverse) influence of EMPLOYEE IMPACT on the intention to use telework after the end of the pandemic (TELEWORKING) (with a coefficient of -0.274 and  $p < 0.10$  in Model II, and a coefficient of -0.330 and  $p < 0.05$  in Model IV).

ii) a significant and positive (i.e., direct) influence of employee performance indicators versus direct competitors (EMPLOYEE COMPETITIVE POSITIONING) on the intention to use telework after the end of the pandemic (TELEWORKING) (with a coefficient of 0.302 and  $p < 0.10$  in Model II, and a coefficient of 0.322 and  $p < 0.10$  in Model IV).

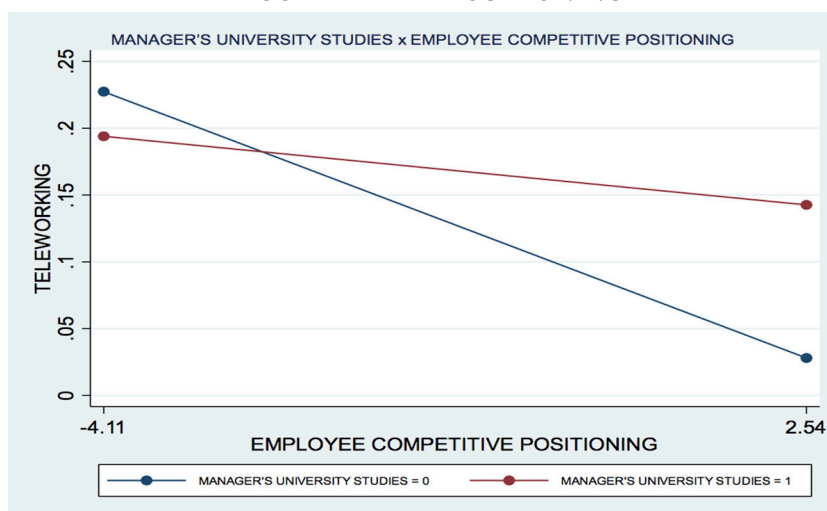
To gain a more in-depth understanding of the bidirectional moderations carried out, the two significant moderations are plotted. Figure 2 shows how the significant negative effect of the moderation of the variable *manager's university studies* on the relationship between *employee management* and the *intention to use telework after the pandemic*, indicates that the intention to continue using telework is much higher in the case of companies led by managers with university studies.

**Figure 2.** MANAGER'S UNIVERSITY STUDIES X EMPLOYEE IMPACT



Next, Figure 3 shows how the positive and significant effect of moderating the variable *manager's university education* on the relationship between the *employee performance* and *competitor* variables on the intention to continue using telework after the end of the pandemic indicates that the intention to use telework decreases to a lesser extent in companies run by managers with a university education.

**Figure 3.** MANAGER'S UNIVERSITY STUDIES X EMPLOYEE COMPETITIVE POSITIONING





These results allow us to accept all the proposed research hypotheses (H1, H2, H3, and H4). The moderating effects of the variable *manager's university studies* on hypotheses H2 and H3 were also corroborated. This shows the high importance of this variable on the intention to continue using telework once the pandemic is over, both directly and through moderation in the other hypotheses.

## 5. Conclusions

The main purpose of this paper is to investigate the intention of Spanish companies to continue using telework once the pandemic is over. To this end, we consider the impact that the management of one of the key stakeholders, that of employees, is likely to have on this intention. There is no doubt that this line of research is of great interest in the post-pandemic context, not only because of the repercussions that arise in the management of the companies themselves, but also in aspects of such relevance as the achievement of various goals of the 2030 Agenda for Sustainable Development, especially goals eight, nine, eleven, and twelve.

In order to achieve this aim, an exhaustive review of the relevant literature on these variables was carried out, allowing a series of hypotheses to be put forward, which included the direct influence of the variables of manager's university studies, employee management in general, employee performance in relation to competitors, and the company's orientation towards innovation on the intention to continue using telework after the end of the pandemic. In addition, the variable *manager's university education* was proposed as a moderator of the relationships between: (i) overall employee management and the intention to continue using telework after the pandemic; and (ii) employee performance relative to competitors and the intention to continue using telework after the pandemic. A number of control variables were also considered, namely firm size measured by number of employees, firm age measured in years, firm expectations in terms of number of employees, measured on a three-point scale, and firm expectations in terms of turnover, also measured on a three-point scale.

In order to test the proposed hypotheses, a sample of companies located in Spain was collected through a telephone survey of managers during the first half of 2021. In order to participate in the study, companies had to have between 6 and 249 employees. SMEs were chosen for this study due to the relevance that this type of company represents in the total Spanish business fabric. The fieldwork was conducted within the context of the research project "Economic impact of COVID-19 on SMEs in Spain", promoted by the "Ibero-American Observatory of MSMEs". The design of the questionnaire ensured an adequate collection of statistical information at all times. The sample totaled 1,879 SMEs. The analysis of the results obtained through various binary logistic regression models led to several interesting findings, which allowed us to accept all the proposed research hypotheses, and which also corroborated the proposed moderating effects.

Among the results obtained, it is first worth highlighting the importance of the variable *manager's university studies* on the intention to continue using telework after the pandemic. This finding is in line with Martin and Staines (1994) and Gordon et al. (2012) demonstrating the positive benefits of managerial education in SMEs and their organizational model. This is followed in importance by the (much weaker) influence of the variables *company innovation orientation* and *employee performance versus competitors* on the intention to continue to use telework after the pandemic. The influence of employee performance versus competitor performance on the intention to continue to use telework after the pandemic is not only minor, but also inverse: i.e., higher employee performance versus competitor performance contributes to a lower intention to use telework after the pandemic. Among the reasons that may contribute to understanding this phenomenon, according to Barbosa (2013), is that managers often claim that they feel a loss of control when running the business remotely. In line with this, Bentley et al. (2016) point out that social isolation and negative organizational results by the teleworker are negatively associated with telework. Furthermore, the moderating effect of the variable *manager's university education* on the hypotheses posed with the independent variables of *employee management* in general and *employee performance versus competitors* is corroborated, reinforcing once again the importance of the manager having a university education, reinforcing that teleworking contributes to improving the competitiveness of companies versus competitors (Kanellopoulos, 2011). In sum, this is a novel study that shows how both the correct management of variables linked to employee motivation and the manager's university education have a positive impact on the intention to continue using telework in SMEs after the COVID-19 pandemic.

Among the findings of this study, we can highlight the importance of the manager's university education, especially in the type of companies analyzed, i.e., SMEs, not only for its direct impact on the intention to use telework once the pandemic is over, but also for its moderating effects on other relationships. In addition, the competitive orientation is of essential relevance for the SMEs analyzed, which is not surprising considering that telework constitutes an element of information and communication technologies that contributes to innovation in business processes. Finally, one should not overlook the importance of considering variables related to employee performance in relation to competitors, as well as employee management in general, which also has an impact on the intention to continue teleworking after the pandemic.

Among the limitations of this work is the sample of companies analyzed, which only included SMEs, as well as the time horizon considered, which was at the peak of the pandemic. Finally, as future lines of research, we propose the study of other types of companies apart from SMEs and the consideration of variables related to other stakeholders, such as customers and suppliers, as well as other time periods.

## Acknowledgements

This research was supported by the Universidad Internacional de La Rioja - UNIR (Funder Identifier: <http://dx.doi.org/10.13039/100017407>) through the Observatorio Competitividad Pequeña y Mediana Empresa UNIR-FAEDPYME programme (Proyecto B0036).

## References

- Ahire, S. L., & Golphar, D. Y. (1996). Quality management in large vs small firms. *Journal of Small Business Management*, 34(3)
- Aquije Niño de Guzmán, C. P. (2018). Home Office Como Estrategia Para La Motivación Y Eficiencia Organizacional. *Palermo Business Review*, 18. [https://www.palermo.edu/economicas/cbrs/pdf/pbr18/PBR\\_18\\_17.pdf](https://www.palermo.edu/economicas/cbrs/pdf/pbr18/PBR_18_17.pdf)
- Armstrong, J. S., & Overton, T. S. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14(3), 396–402. <https://doi.org/10.1177/002224377701400320>
- Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23(4), 383–400. <https://doi.org/10.1002/job.144>
- Bañón, A. R., & Sánchez, A. A. (2008). Strategic resources in SMEs. *European Journal of Management and Business Economics*, 17(1), 103–126
- Barbosa, V. K. (2013). *Teletrabajo liderar y trabajar en equipos a distancia* (1a. ed.). Ed. Dunken
- Bartik, A., Bertrand, M., Cullen, Z., Glaeser, E. L., Luca, M., & Stanton, C. (2020). How are Small Businesses Adjusting to COVID-19? Early Evidence from a Survey. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3574741>
- Bauzá, F. J., & Melgosa, F. J. (2020). *Post-Covid-19 Tourism. Tourism after the global pandemic: Analysis, perspectives and ways of recovery*
- Benn, S., Abratt, R., & O'Leary, B. (2016). Defining and identifying stakeholders: Views from management and stakeholders. *South African Journal of Business Management*, 47(2), 1–11. <https://doi.org/10.4102/sajbm.v47i2.55>
- Bentley, T. A., Teo, S. T. T., McLeod, L., Tan, F., Bosua, R., & Gloet, M. (2016). The role of organisational support in teleworker wellbeing: A socio-technical systems approach. *Applied Ergonomics*, 52, 207–215. <https://doi.org/10.1016/j.apergo.2015.07.019>
- Bhattacharya, M., Gibson, D. E., & Doty, D. H. (2005). The Effects of Flexibility in Employee Skills, Employee Behaviors, and Human Resource Practices on Firm Performance. *Journal of Management*, 31(4), 622–640. <https://doi.org/10.1177/0149206304272347>
- Camisón-Haba, S., Clemente-Almendros, J. A., & Gonzalez-Cruz, T. (2019). How technology-based firms become also highly innovative firms? The role of knowledge, technological and managerial capabilities, and entrepreneurs' background. *Journal of Innovation & Knowledge*, 4(3), 162–170. <https://doi.org/10.1016/j.jik.2018.12.001>
- Carrasco Hernández, A. J., Sánchez Marín, G., & Meroño Cerdán, Á. L. (2014). Prácticas de Recursos Humanos en la Empresa Familiar: profesionalización y efecto sobre el desempeño. *European Journal Of Family Business*, 4(2). <https://doi.org/10.24310/ejfbefb.v4i2.5048>
- Charbotel, B., Croidieu, S., Vohito, M., Guerin, A., Renaud, L., Jaussaud, J., Bourboul, C., Imbard, I., Ardiet, D., & Bergeret, A. (2009). Working conditions in call-centers, the impact on employee health: a transversal study. Part II. *International Archives of Occupational and Environmental Health*, 82(6), 747–756. <https://doi.org/10.1007/s00420-008-0351-z>
- Chen, Y. K., Jaw, Y., & Wu, B. (2016). Effect of digital transformation on organisational performance of SMEs. *Internet Research*, 26(1), 186–212. <https://doi.org/10.1108/IntR-12-2013-0265>
- CincoDías (2021, June 28). *La Covid-19 y sus efectos económicos en las pymes españolas*. [https://cincodias.elpais.com/cincodias/2021/06/28/pyme/1624873056\\_800554.html](https://cincodias.elpais.com/cincodias/2021/06/28/pyme/1624873056_800554.html)
- Clarkson, M. E. (1995). A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *Academy of Management Review*, 20(1), 92–117. <https://doi.org/10.5465/amr.1995.9503271994>
- Cuevas-Vargas, H., Aguirre, J., & Parga-Montoya, N. (2022). Impact of ICT adoption on absorptive capacity and open innovation for greater firm performance. The mediating role of ACAP. *Journal of Business Research*, 140, 11–24. <https://doi.org/10.1016/j.jbusres.2021.11.058>

- Da Camara, N. (2006). The Relationship between Internal and External Stakeholders and Organisational Alignment. *Henley Manager Update*, 18(1), 41–52. <https://doi.org/10.1177/174578660601800104>
- Davies, G., & Miles, L. (1998). Reputation Management: Theory versus Practice. *Corporate Reputation Review*, 2(1), 16–27. <https://doi.org/10.1057/palgrave.crr.1540064>
- de Chernatony, L. (1999). Brand Management Through Narrowing the Gap Between Brand Identity and Brand Reputation. *Journal of Marketing Management*, 15(1-3), 157–179. <https://doi.org/10.1362/026725799784870432>
- Degago, E. (2014). A study on impact of psychological empowerment on employee performance in small and medium scale enterprise sectors. *European Journal of Business and Management*, 6(27), 60–71. <https://www.iiste.org/Journals/index.php/EJBM/article/view/15547>
- Dickson, K., & Clear, F. (2006). Management issues in the adoption of telework amongst SMEs in Europe. Paper presented at *Portland International Conference on Management of Engineering and Technology. 2006 Proceedings, 9-13 July, Istanbul, Turkey*. <https://doi.org/10.1109/PICMET.2006.296745>
- Economía Digital (2020, April 13). *El 57% de las empresas españolas, afectadas por el estado de alarma*. [https://www.economiadigital.es/economia/el-57-de-las-empresas-espanolas-afectadas-por-el-estado-de-alarma\\_20053062\\_102.html](https://www.economiadigital.es/economia/el-57-de-las-empresas-espanolas-afectadas-por-el-estado-de-alarma_20053062_102.html)
- Edwards, P., & Edwards, S. (1995). *List of the Best prospective Home Business for 1995*. Compuserve
- Eurofound (2020, March 26). *COVID-19 could permanently change teleworking in Europe*. <https://www.eurofound.europa.eu/news/news-articles/covid-19-could-permanently-change-teleworking-in-europe>
- Feng, Y., Akram, R., Hieu, V. M., & Tien, N. H. (2022). The impact of corporate social responsibility on the sustainable financial performance of Italian firms: mediating role of firm reputation. *Economic Research-Ekonomska Istraživanja*, 35(1), 4740–4758. <https://doi.org/10.1080/1331677X.2021.2017318>
- Gascueña, D. (2020, May 7). *El teletrabajo: ¿la nueva normalidad pos COVID-19?*. <https://www.bbva.com/es/el-teletrabajo-la-nueva-normalidad-pos-covid-19/>
- Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology*, 93(6), 1412–1421. <https://doi.org/10.1037/a0012722>
- Gordon, I., Hamilton, E., & Jack, S. (2012). A study of a university-led entrepreneurship education programme for small business owner/managers. *Entrepreneurship & Regional Development*, 24(9-10), 767–805. <https://doi.org/10.1080/08985626.2011.566377>
- Haines III, V. Y., St-Onge, S., & Archambault, M. (2002). Environmental and Person Antecedents of Telecommuting Outcomes. *Journal of Organizational and End User Computing*, 14(3), 32–50. <https://doi.org/10.4018/joec.2002070103>
- International Labour Organization (2020). *Teleworking during the COVID-19 pandemic and beyond. A practical guide*. Geneva: International Labour Office, July 2020. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---travail/documents/instructionalmaterial/wcms\\_751232.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/instructionalmaterial/wcms_751232.pdf)
- Jackson, S. E., Garnett, C., Shahab, L., Oldham, M., & Brown, J. (2021). Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England: an analysis of 2019–20 data. *Addiction*, 116(5), 1233–1244. <https://doi.org/10.1111/add.15295>
- Jiménez-León, F. G., & Mariño-Lua, I. L. (2018). Investigación y análisis de la rotación del talento humano en las cadenas de comidas rápidas y su impacto en la productividad y el clima laboral. *Dominio de las Ciencias*, 4(3), 449. <https://doi.org/10.23857/dc.v4i3.818>
- Jones, F., Burke, R. J., & Westman, M. (2013). *Work-life balance: A psychological perspective*. Psychology Press. <https://doi.org/10.4324/9780203536810>
- Kanellopoulos, D. N. (2011). How can teleworking be pro-poor? *Journal of Enterprise Information Management*, 24(1), 8–29. <https://doi.org/10.1108/17410391111097401>
- Karia, N., & Asaari, M. H. A. H. (2016). Innovation capability: the impact of teleworking on sustainable competitive advantage. *International Journal of Technology, Policy and Management*, 16(2), 181. <https://doi.org/10.1504/IJTPM.2016.076318>
- Kazekami, S. (2020). Mechanisms to improve labor productivity by performing telework. *Telecommunications Policy*, 44(2), 101868. <https://doi.org/10.1016/j.telpol.2019.101868>
- Kowalski, K. B., & Swanson, J. A. (2005). Critical success factors in developing teleworking programs. *Benchmarking: An International Journal*, 12(3), 236–249. <https://doi.org/10.1108/14635770510600357>
- Li, S., & Li, C. (2021). What makes customer participation a double-edged sword: The impact and factors of self-serving bias in agritourism. *Journal of Destination Marketing & Management*, 21, 100571. <https://doi.org/10.1016/j.jdmm.2021.100571>
- Martin, G., & Staines, H. (1994). Managerial Competences in Small Firms. *Journal of Management Development*, 13(7), 23–34. <https://doi.org/10.1108/02621719410063396>

- Martínez-Ruiz, M. P., Jiménez-Zarco, A. I., & Izquierdo-Yusta, A. (2010). Customer satisfaction's key factors in Spanish grocery stores: Evidence from hypermarkets and supermarkets. *Journal of Retailing and Consumer Services*, 17(4), 278–285. <https://doi.org/10.1016/j.jretconser.2010.02.005>
- Martínez-Sánchez, A., Pérez-Pérez, M., De-Luis-Carnicer, P., & José Vela-Jiménez, M. (2006). Teleworking and new product development. *European Journal of Innovation Management*, 9(2), 202–214. <https://doi.org/10.1108/14601060610663578>
- Milasi, S., González-Vázquez, I., & Fernández-Macías, E. (2021). *Telework before the COVID-19 pandemic: Trends and drivers of differences across the EU. OECD Productivity Working Papers*. <https://doi.org/10.1787/24139424>
- Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of who and What Really Counts. *Academy of Management Review*, 22(4), 853–886. <https://doi.org/10.5465/amr.1997.9711022105>
- Murugan, S., Rajavel, S., Aggarwal, A. K., & Singh, A. (2020). Volatility, uncertainty, complexity and ambiguity (VUCA) in context of the COVID-19 pandemic: Challenges and way forward. *International Journal of Health System and Implementation Research*, 4(2). <https://ijhsir.ahsas-pgichd.org/index.php/ijhsir/article/view/93>
- Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: characteristics and outcomes of telework. *International Journal of Manpower*, 40(1), 87–101. <https://doi.org/10.1108/IJM-07-2017-0172>
- National Institute of Statistics (2021). *Indicators of activity of the Services Sector (IASS). September 2020. Press releases*. [https://www.ine.es/en/daco/daco42/iass/iass0720\\_en.pdf](https://www.ine.es/en/daco/daco42/iass/iass0720_en.pdf)
- Pérez, M. P., Sánchez, A. M., & de Luis Carnicer, M. P. (2002). Benefits and barriers of telework: perception differences of human resources managers according to company's operations strategy. *Technovation*, 22(12), 775–783. [https://doi.org/10.1016/S0166-4972\(01\)00069-4](https://doi.org/10.1016/S0166-4972(01)00069-4)
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-Reports in Organizational Research: Problems and Prospects. *Journal of Management*, 12(4), 531–544. <https://doi.org/10.1177/014920638601200408>
- Pyöriä, P. (2011). Managing telework: risks, fears and rules. *Management Research Review*, 34(4), 386–399. <https://doi.org/10.1108/01409171111117843>
- Raghavan, A., Demircioglu, M. A., & Orazgaliyev, S. (2021). Covid-19 and the new normal of organizations and employees: An overview. *Sustainability*, 13(21), 11942. <https://doi.org/10.3390/su132111942>
- Sanchious, C. L. (2022). *An examination of managers' view of telework and business continuity: Utilization level before and during the COVID-19 pandemic*. (Doctoral dissertation).. Keiser University
- Sarfracz, M., Ivascu, L., Belu, R., & Artene, A. (2021). Accentuating the interconnection between business sustainability and organizational performance in the context of the circular economy: The moderating role of organizational competitiveness. *Business Strategy and the Environment*, 30(4), 2108–2118. <https://doi.org/10.1002/bse.2735>
- Schultz, M., Hatch, M. J., & Larsen, M. H. (2001). The Expressive Organisation: Linking Identity, Reputation and the Corporate Brand. *Corporate Communications: An International Journal*, 6(2), 107–109. <https://doi.org/10.1108/ccij.2001.6.2.107.2>
- Siegel, S. M., & Kaemmerer, W. F. (1978). Measuring the perceived support for innovation in organizations. *Journal of Applied Psychology*, 63(5), 553–562. <https://doi.org/10.1037/0021-9010.63.5.553>
- Tödting, F., Lehner, P., & Kaufmann, A. (2009). Do different types of innovation rely on specific kinds of knowledge interactions? *Technovation*, 29(1), 59–71. <https://doi.org/10.1016/j.technovation.2008.05.002>
- Tremblay, D., & Genin, É. (2007). The Demand for Telework of IT Self-Employed Workers. *The Journal of E-Working*, 1(2), 98–115
- Tucker, H. (2020, May 3). *Coronavirus bankruptcy tracker: These major companies are failing amid the shutdown*. <https://www.forbes.com/sites/hanktucker/2020/05/03/coronavirus-bankruptcy-tracker-these-major-companies-are-failing-amid-the-shutdown/?sh=1705f83b3425>
- Vitola, A., Baltina, I., Judrupa, I., & Šenfelde, M. (2013). *Overview on the Smart Work Centres in Europe*