

## **THE IMPACT OF TELEWORKING UPON THE DIMENSIONS OF SUSTAINABILITY**

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**ABSTRACT:** *This paper explores the impact of teleworking upon the three well-established dimensions of sustainability. As far as environment sustainability is concerned, we talk about: the decrease of transportation flows in the private and public transportation operated for bringing the employees to and from their jobs – determining positive effects on decreasing fuel consumption and greenhouse gas emissions; the use of electronic mail instead of printed documents, which determines the significant decrease of paper consumption and implicitly, of carbon print; the regeneration of natural systems etc. The main positive social consequences of the shift towards the new forms of organizing remote working are the following ones: decrease of unemployment among the people from rural areas, disabled persons and other categories of vulnerable persons; encouraging diversity and social inclusion through determining, as part of teleworking, a series of opportunities and fair evolution chances for all employees, irrespective of gender, culture, ethnicity, social environment of origin or degree of vulnerability. Lately and closely connected with these aspects, specialized works have set forth a series of positive correlations among job satisfaction, work-life balance, employees' interest for developing their career and the well-being at work that may be reached through strengthening certain elements of organisational culture displaying features which support performance, minimize stress and determine the efficient management of human resources. In economic terms, teleworking appears to meet a series of important needs of the employees, such as increased flexibility and autonomy in performing their duties at work. Meanwhile, remote working has determined the decrease of the costs employers were required to pay for organizing and maintaining the office space, electrical energy consumption, supplies, thermal power, Internet providing and maintenance of IT equipment, security services, etc. Besides, whenever durable consumption and production models are promoted, economic growth is detached from climate change.*

**KEY WORDS:** *teleworking, remote working, hybrid working, productivity, sustainability.*

**JEL CLASSIFICATIONS:** *O15, J62, M20.*

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## 1. INTRODUCTION

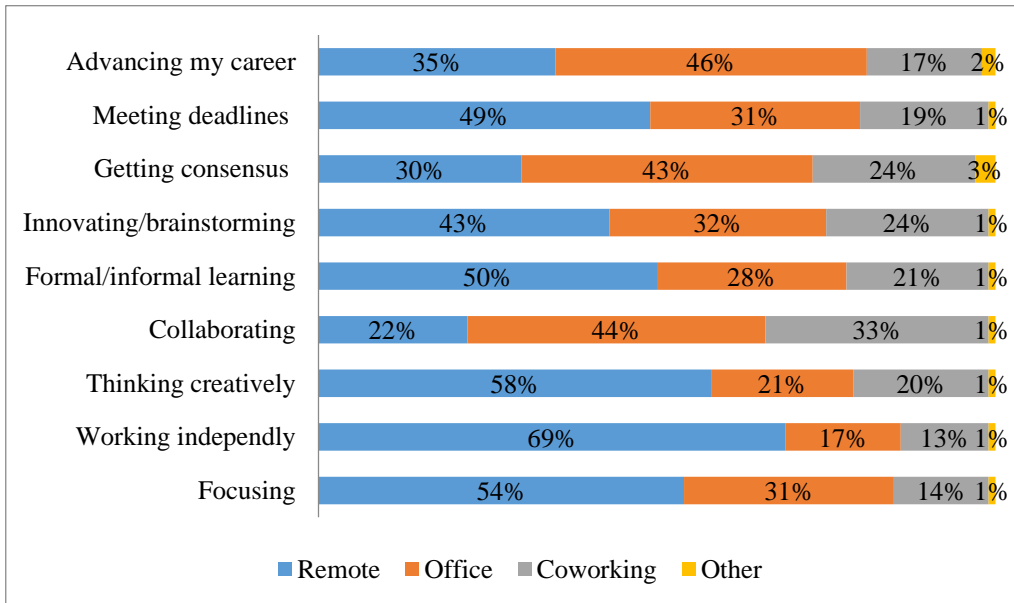
The concept of teleworking goes back to the beginning of the 1970s and was used in order to define a new procedure for implementing new unconventional labour regulations. The phrase “teleworking” was coined by Jack M. Niles and refers to the giving up of the daily travel to work as a result of the spread of information and communication technology (ICT) (Purificación & Rodríguez-Modroño, 2020). Despite the fact that a widely-known definition of the phenomenon has not yet been settled, the term *teleworking* is usually acknowledged as being equivalent to all forms of work that occur outside the premises of the employer and involve the use of modern information technologies.

The worldwide spreading, at an accelerated pace, of the COVID-19 pandemics, at the beginning of 2020, substantially impacted the deepest roots of social systems and represented an extraordinary challenge, mainly for the fields of public health, economy and education. People had to adapt to the new restrictions and tried to carry out most lucrative activities while observing social distancing in order to be able to avoid the spreading the infection with the new virus. Although year 2022 brought about the loosening of the social distancing rules alongside with the spreading of a less dangerous form of the virus, teleworking is still a flexible and less expensive alternative for carrying out professional activities in the case of an important segment of the labour force employed worldwide (Nemțeanu, et al., 2021).

## 2. TELEWORKING AND LABOUR PRODUCTIVITY

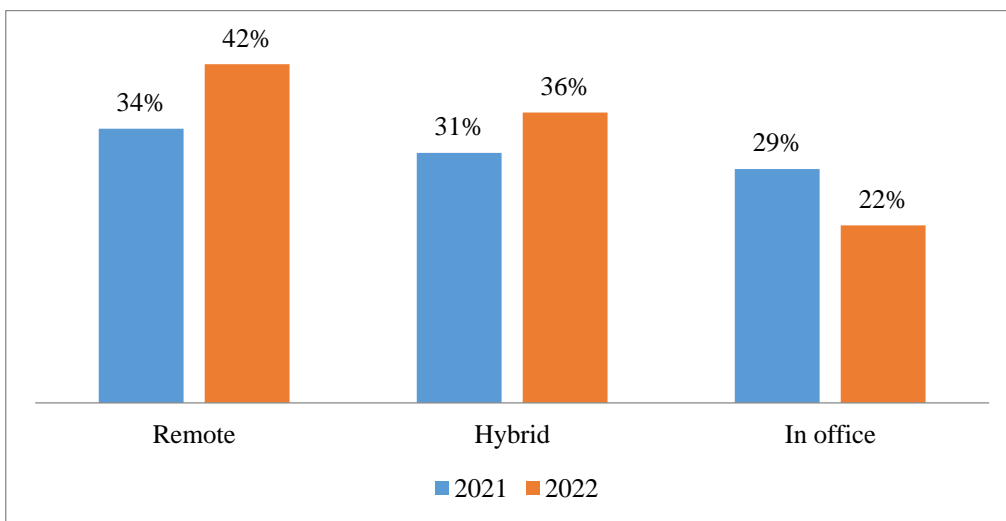
Rejected in the past due to lacking the legal framework for regulating employment relationships and to the limited level of digitization of a series of economic sectors, yet recommended by the authorities as a temporary answer to the unprecedented challenges determined by the COVID-19 pandemics worldwide, teleworking represents today the future of the flexible schemes for organizing labour. Until 2020, there were quite a few enterprises which fully or temporarily implemented teleworking or the hybrid working program (where remote working alternates with the physical presence of the employees at their office); nonetheless, the extensive use of this work model during the pandemics was mainly possible owing to the following undeniable advantages of teleworking: increased productivity, decrease of the employee turnover, decrease of employers’ operational costs, decrease of carbon print, optimized balance between professional life and private life for most employees (Figure 1) (Turkeş & Vuță, 2022).

As a result, and in accordance with the conclusions of the Global Workplace Analytics’ study (2022), employers’ preference tend to increasingly shift from the traditional work schemes to remote working and hybrid working (Figure 2). The number of those who prefer remote working increased by 24% in year 2022 compared with 2021, while the number of the employees hired according to a hybrid scheme increased by 16% during the same period. Similarly, the preference of the employees for the traditional work system, involving their physical presence at their offices, decreased by 24%.



Source: Global Workplace Analytics (2022), State of Remote Work, www.owlabs.com

Figure 1. Hybrid workers’ perceptions upon productivity



Source: Global Workplace Analytics (2022), State of Remote Work, www.owlabs.com

Figure 2. Preferred working style 2022 versus 2021

During the years that followed the outbreak of COVID-19 pandemics, teleworkers managed to identify a series of supportive elements that provide an increased level of productivity of remote working models: ability to focus, creative thinking, ability to work efficiently and independently, ability to meet the deadlines, varied opportunities for formal and informal learning etc. (Figure 1). Furthermore,

almost two thirds of the employees consider that their productivity is higher when they work remotely compared to only 11% who consider themselves less productive under the same circumstances (Global Workplace Analytics (2022)).

### 3. THE THREE DIMENSIONS OF SUSTAINABILITY

A definition of the concept of durable development, widely accepted by the literature, is the one found in the content of Brundtland Report (after the name of the Norwegian prime minister at the time) of the World Commission on Environment and Development, which has a suggestive title: “*Our Common Future*”. As part of this approach, durable development is defined as a “*development that aims to meet the needs of the present without compromising the possibility of the future generations to meet their own needs*” (ANPM, 2022). Under these circumstances, the term “development” becomes synonymous not only to growth but also to the transition of an economic system from an old condition to a new one, or from an inferior development level to a superior one.

On a microeconomic level, the inclusion of the corporations in a sustainable development system involves the inclusion of the dimensions of sustainability within all the activities and operations carried out (Danciu, 2013). These distinct components regard:

- a) *The environmental dimension* – which reflects management’s preoccupation for minimizing the impact of the activities of the corporations upon the environment, for providing an optimal administration of the resources employed and for efficiently managing waste;
- b) *The social dimension* – which considers the preoccupation of the corporations for improving the quality of the life of communities where they carry out their activity through implementing programs, relational models, behaviours and values that are able to support future welfare;
- c) *The economic dimension* – which regards the capacity of a corporation to generate profit, to develop and to support local, national and global economic systems. The achieving of these functions involves the deep changing of the traditional production methods as well as the change of consumption models for the preservation of both the material and the immaterial optimal life conditions.

It is obvious that the move towards redefining the coordinates of the evolution of traditional economic systems in compliance with the principles of sustainability may be translated to reality only given the fact that governments, decisional factors at various levels, corporations and individuals are aware of the impact of these principles on the quality of their life and decide to act accordingly.

We are going to display below, by reference to the well-known theoretical paradigm “*triple bottom line*”, the significant impact the tendency to increase the usability of various remote working organizing formulae in economic practice exerts on the three acknowledged dimensions of sustainability. In the summary, the effects of adopting teleworking at ecological, social and economic levels are suggestively shown in Figure 3.



Source: authors' concept

Figure 3. Impact of teleworking on the dimensions of sustainability

#### 4. TELEWORKING AND ENVIRONMENT SUSTAINABILITY

The theoretical debates concerning the increase, during the last years, of the preoccupations for environment quality represent the roots of the foundation of the new forms of organizing remote working: the issues that concern the overloading of road traffic, the pollution determined by this form of transportation, climate changes or the emerging of legislative regulations that discourage the private use of the means of transport have sounded the alarm with a view to finding innovative solutions for introducing and adopting teleworking on a large scale (Belzunegui-Eraso & Erro-Garcés, 2020; Loia & Adinolfi, 2021).

It was thus estimated that the new forms of organizing teleworking were going to exert cumulative beneficial effects upon environment quality, which would mean the significant decrease of the level of pollution as a result of restricting or abandoning a series of activities connected with travelling to and from job and the traditional carrying out of job responsibilities: decrease of transportation flows of the private and public transport systems used for employees' travelling to and from their jobs (with positive effects upon the decrease of fuel consumption and greenhouse gas emissions); decrease of the frequency of business travelling with a view to solve professional issues in other locations or states; use of electronic mail instead of printed documents, which determines a significant decrease of paper consumption and, implicitly, of the carbon print etc. (Sârbu et al., 2021).

There are also other trends set forth by the literature, asserting that teleworking may determine, under certain conditions, effects that are opposite to the desired ones (called by the phrase "*rebound effects*"), meaning that it is possible that the carrying out of the employee's activity outside the perimeter where the company is located

(remote rural areas, for instance) involves less frequent travels but longer distances, which accordingly eliminate part of the benefits expected. Meanwhile, unmanageable urban expansion may, at its turn, exert a significant negative impact on land use, while energy consumption for heating and lighting equipment is literally transferred from employers to employees, with few possibilities for quantifying such expenditures at the level of the whole economic organism (Sârbu *et al.*, 2021; Stanton & Tiwari, 2021; Rietveld, 2011; Melo & de Abreu e Silva, 2017).

Nonetheless, even in the case when we take into account the possible negative effects, the net impact of teleworking on environment is still considered a positive one by most researchers owing to the multiple implications of the new manner of organizing labour on the transition to the green economy through decarbonizing transportation, energy, construction industry and other economic branches (Hook *et al.*, 2020). Based on the previously mentioned arguments, there are opinions in the literature that equal teleworking to the echo-innovations conceived for a sustainable development, the latter ones being defined as “*innovations in terms of products, services and business management that decrease the impact upon the environment and facilitate the reaching of a series of goals for durable development or long term improvements relying on the changing of business processes*” (Ghisetti *et al.*, 2015).

## 5. TELEWORKING AND SOCIAL SUSTAINABILITY

As already mentioned, the social dimension detains a prominent place within the trinitarian formula of sustainability, alongside the economic aspects and the ones concerning environment protection. In substance, social sustainability regards the well-being of the employees and their protection in the context of implementing fair policies, subordinated to the goals deriving from the need to observe the principles of social diversity (Chițu, 2020; Tecău, 2021).

The emergence and the cascading effects of the deep crises determined by SARS-Cov-2 virus – which have determined the accelerated adoption of the new forms of organizing remote working – have resulted in deep changes, most of them irreversible, of all the aspects of labour market. In accordance, the *Report concerning the European semester for coordinating economic policies: aspects connected with employment and the social aspects of the yearly strategy for 2022 regarding the durable development*, issued by the European Parliament, on March 3<sup>rd</sup>, 2022, shows that the degree of employment and the total amount of hours worked in the member-states restored to levels that are similar to those during the period preceding the crisis and that the flexible forms of remote working significantly contributed to this.

Practically, the large-scale adoption of teleworking enabled the emerging of a new model of employment, namely the triggering of an important area of social economy – the employment of those belonging to vulnerable groups – that has become an opportunity which a lot of employers exploited. In accordance, the second specific goal of the *National Employment Strategy 2021-2027* has in view both the providing of incentives for employers that will offer alternative employment packages for rural population and vulnerable persons and special packages of measures conceived for really supporting the disadvantaged communities that are founders of social

enterprises. Through teleworking, the indicators for the improvement of the occupational structure of the labour force but also those who are connected to the increase of the labour market participation of a series of categories that traditionally had lower insertion opportunities are expected to improve significantly (Romania's Government, 2021; MKOR, 2020).

The main positive social consequences of the shift towards the new forms of organizing distance working are as follows: possibility to improve the balance between labour and private life (mainly in the case of women with small children, who are thus able to build on new opportunities for professional growth); decrease of unemployment among people in the countryside, disabled individuals and other vulnerable categories; promotion of diversity and social inclusion through determining, in the context of teleworking, new and fair development opportunities and chances for all employees, irrespective of their gender, culture, ethnicity, social environment of origin or degree of vulnerability. Closely connected with these aspects, the literature has lately set forth a series of positive correlations among job satisfaction, labour – private life balance, the interest of the employees to develop their career and their *level of well-being* (Miron *et al.*, 2021). Premises are thus created for the expression of *work-related well-being*, which may be reached both individually and organisationally through strengthening a series of elements of the organisational culture displaying features characteristic for performance, stress-minimizing and the efficient administering of human resources (Prasad, Vaidya & Mangipudi, 2020).

## **6. TELEWORKING AND ECONOMIC SUSTAINABILITY**

At a microeconomic level, sustainability targets the existence and implementation of a series of modern management systems and planning mechanisms able to provide the ascendant trend of corporations, considering that the resources they use may be regenerated/ recycled on a long term, while business profitability might be preserved and even amplified. From another perspective, we might say that the businesses administered in accordance with the principles of sustainability will be able to offer future generations robust ecologic and social programs (Danciu, 2013). There are a series of authors of papers in the literature who plead in favour of internalizing sustainability approaches so that the administration of one's own human resources based on the same lines of actions that represent the foundation of the social programs elaborated and implemented by the corporations focusing on durable development would provide the increase of the employees' level of motivation and, implicitly, the increase of profitability performance.

From this point of view, teleworking seems to respond to the increasingly acute needs of the employees for high flexibility and autonomy in carrying out their job responsibilities. The opportunity to work remotely determines the increase of labour autonomy, a phenomenon that, at its turn, shows the increase of the level of job satisfaction as well as the boosting of the level of professional performance and of the possibilities to balance labour responsibilities and family life (Nemțeanu, Dabija & Stanca 2021; Dima *et al.*, 2019; Golden & Gajendran, 2019). Based on the previously mentioned assertions, a large number of studies unfolded during the period of the

restrictions determined by the pandemics set forth positive connections between the carrying out of professional activity through teleworking and the increase of labour productivity in the case of various categories of employees (Moglia, Hopkins & Bardoel, 2021; Kazekami, 2020; OECD, 2020). Meanwhile, remote working has determined the decrease of employers' costs with organizing and maintaining the space for their offices, electrical energy consumption and supplies, travels from and to the job, thermal energy, Internet connection and maintaining the IT equipment, guard services etc. (Sârbu *et. al.*, 2021). Besides, employers could instantly hire the best specialists (irrespective of the location these specialists live at) and, implicitly, limit labour indiscipline phenomena such as absenteeism, delays at work or decreased responsibility in carrying out job tasks in due term.

The literature of the recent years also includes a large number of researches that focus upon the fact that resorting to teleworking for a long period of time might determine a series of shortcomings, both economic and social. In the case of the employees resorting to teleworking (mainly in the case of women), the achieving of a balance between family responsibilities and professional responsibilities is quite fragile, especially when the expectations of the other members of the family with regard to their degree of involvement in household activities are higher under such circumstances.

Moreover, the increased working hours, the difficulty to clearly delineate between work and private life, inefficient time management, social isolation and decrease of the interactions with the team members they are part of represent the main factors that seriously influence the mental health of those who work remotely. Let's also add to these a series of risks belonging to the field of labour health and safety, which should also be considered by each employer: workplace non-ergonomic principles that might impact, on a long term, employees' health; use of a limited and improper work space for optimally exploiting work equipment, electric or other kind of risks existing in the space where teleworking is carried out, risk of cybernetic attacks, sedentary lifestyle, improper communication, virtual environment harassment etc.

In order to find a solution to the so-called "*teleworking paradox*", as it is known in the literature (Miron *et al.*, 2021) – which involves the multiple beneficial influences of the phenomenon upon autonomy and the balance between work and private life, which are nonetheless doubled by the similar manifesting of a series of negative influences on communication and professional relations – specialists in the field of human resources management are expected to identify proper solutions for each category of teleworker. In accordance, *the durable management of human resources* will target long-term objectives and performance and will focus upon those aspects that provide a high quality of the employees' professional life – career development and rise, flexibility, efficient management of employment safety and health, cooperation among the employees, observance of the legislative framework in the field of labour, ethics and integrity, inclusion and diversity – all these without endangering business profitability.



## 7. CONCLUSIONS

Considering the fact that the share of the employees who work remotely tends to increase significantly, teleworking should be perceived not as a tendency of the future, but as a way of living where workers are more productive, social inclusion increases, business organisations work more efficiently and the quality of the environment is ensured. In our country, the development of remote working options is still at the beginning and it is necessary to intensify, in the near future, the research efforts of the representatives of the academic environment and specialists to change the perception of the Romanian employees on teleworking and on the level of their awareness of the positive impact of such forms of remote working on durable development.

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