Challenges of Modern Organisation in the Post-pandemic Period

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Since the financial crisis of 2008, the global economy has become highly volatile and subject The economic ecosystem has become highly volatile in the last decade. It is the subject of disruptive crises. Among the numerous strategic variables and vectors that determine the social-economic situation at the global and local levels, two processes stand out today: digitalisation and the pandemic, with their temporal and spatial coincidence having a converging meaning and importance. The theoretical study presents the organisational challenges and possible responses to them in adapting enterprises to the challenges of the post-Covid-19 world.

Key words: *European Union, Covid-19, digital transformation, organisational changes, post- Covid-19 world*

1. Introduction

Since the financial crisis of 2008, the global economy has become highly volatile and subject to various forms of crisis. Thus, the economic situation is influenced by the processes of political stability, which are constantly subject to fluctuations. One such example is the recent destructive political decision of the United Kingdom to leave the European Union. As evidenced by the political (economic relations with France over the Channel fishery) and economic (supply chain crisis, labour shortages, withdrawal of enterprises, loss of European enterprise status in the EU for English enterprises) implications, this is a relatively quick and sometimes unexpected and ill-conceived political decision (Pandzic, 2021). In the 21st century, the business environment also increasingly faces the problem of natural disasters and the occurrence of pandemics as their impact on the economy increases. In the 21st century, the business environment is in a situation where rapid environmental changes, unknown diseases, political aggravations, and the emergence of new technologies make it extremely difficult to predict future events, especially when using historical data that lose their relevance and validity (Gkeredakis et al. 2021). Furthermore, Covid-19 and the political and economic strain on US-China relations and Russia, the US and the EU exposed the vulnerability of a global supply chain (Free & Hecimovic, 2021).

Among the many strategic variables that determine the socio-economic situation at the global and local levels, two processes stand out today: digitalisation and the Covid -19, which coincide in time and space and have converging importance. The rapid and accelerated development of digital technologies and disruptive innovations in just a few years has completely changed our views and possibilities of socio-economic development and drastically changed the way of production, work, business, entertainment, culture, information, etc. due to the easy accessibility and mass production of technological devices to the extent that until recently was difficult to understand and practically unattainable (Roblek et al., 2021)

Thus, since 2011, the fourth industrial revolution has triggered an evolutionary trend that influences the creation of a new strategic environment in which transformation under the pressure of digitalisation leads postmodern society into the digital age. We can therefore speak of a transition to an era of "postnormality", characterised by dynamic processes of networking "everything with everything and everywhere". This postnormality leads to the introduction of new "sliding" rules and patterns of life and work, which develop under the constant threat and pressure of constant interruptions. The widespread use of new or so-called convergent technologies has led to general growth trends that revolutionise the business, industry, and other related fields (Rapaccini et al., 2020). However, the dynamic technological advances are accompanied by some challenges, threats, and risks posed by cyberspace. An essential outcome of the fourth industrial revolution is the shift of human work (and leisure activities) from the physical to the cyber environment (Potočan et al., 2020). However, this shift and working in a virtual environment (e.g., from home) requires organisations to respond appropriately in cybersecurity.

The last factor that significantly impacts the economic situation and business activity in the current period is the Covid-19 virus. The virus has only accelerated the digital transformation of businesses in 2020-2021, mainly due to the requirements of social distancing and worker protection. Such a situation emerge because the previously purely traditional enterprises enter this process. However, the Corona-19 virus is also affecting the economic situation, as restrictive measures to limit the spread of the virus have led to a decline in economic growth. The decline in sales affects most sectors (measured by GDP) and those that depend on direct sales, such as tourism and hospitality.

This conceptual paper is structured as follows:

2. Theoretical background

2.1 Covid-19 period and uncertain business environments

In volatile and uncertain business environments, we experience volatile situations. In such complex situations, management is faced with a multitude of decisions that are often unclear. In the Covid 19 crisis, enterprises learned the importance of adopting more agile and flexible business models (e.g., nible organisation model) and shifting to digital business. However, the Covid 19 crisis coincides with the growing national populism and political tensions in U.S.-China relations, both on the Taiwan issue and the pricing concurrence war led by the Chinese industry. Furthermore, in 2022, the aggravation of relations between Russia and the members of NATO came to the fore due to the installation of weapons on the border with Russia and the possible accession of Ukraine to the pact NATO. All this could significantly impact the changes in economic flows, and the post-Covid 19 periods could also mark the beginning of the end of neoliberal globalisation (Free & Hecimovic, 2021). For example, in early 2022, European enterprises are still facing a decline in the supply of raw materials, leading to longer delivery times. Thus, the world is facing fluctuations on the demand and supply sides. As a result, enterprises face process uncertainties, supply chain bottlenecks (e.g., closure of key ports in China, limited extraction of raw materials due to a shortage of healthy labour), and information ambiguities. The question is whether, for example, European enterprises will start to shorten their supply chains and look for members for their supply chains in the Western Balkans and Eastern Europe.

2.2. European Union case for economic recovery in the post-Covid-19 period

At the beginning of the preparations for the new EU Commission's policies for the digital and green decade of 2020, the world as the Covid-19 outbreak rocked the EU economy. The pandemic COVID -19 hit 2020 and 2021 the EU economy hard, disrupting supply chains, industrial production, foreign trade and capital flows. The shock to the EU economy is much worse than the last economic and financial crisis in 2008. For this reason, and because of Europe's economic solid interdependence, it is crucial that the recovery is symmetrical and involves comprehensive and coordinated measures (Ferry-Pisany, 2020). Therefore, the EU Commission has decided to add to or amend the package of new guidelines for the European economy in 2020, including the Industrial Strategy to 2030, the new strategy for small and medium-sized enterprises published before the pandemic in March 2020, the Action Plan for the Circular Economy (European Commission, 2020a) and the Long term action plan for better implementation and enforcement of single market rules (European Commission, 2020b). EU leaders confirm the recovery package and the EU budget for 2021-2027. A €750 billion recovery effort to help the EU tackle the crisis caused by the COVID-19 pandemic and a €1074 billion long-term EU budget for 2021-2027. A minimum of 20% of the funds under the Recovery and Resilience Facility will be available for the digital transitions, including for SMEs (European Council and Council of the EU, 2021). The funds for digital transformation for SMEs are necessary because the EU faces the problem that SMEs take too long to adapt to new technologies and lack critical technological enterprises. As a result, productivity growth in the EU is lagging and becoming an increasingly complex problem as the Covid 19 pandemic has led to a faster enterprises digitalisation transition.

Moreover, the EU industrial sector faces a green transformation in addition to digital transformation, requiring large-scale technological dispersion (Mollet & Pilati, 2021). In the coming years, both the transition to a green economy and the digital transformation will require the EU Commission, Member States, SMEs and stakeholders to support research and innovation and, in particular, the development of new green and digital technologies by the end of 2030. For R&D programmes for SMEs is essential that the EU commission prepares the financial instruments and programs. All this will help industry and businesses restructure, become more resilient, and recognise the current situation of EU industrial policy (Claeys et al., 2021).

3. Digital and green transformation processes in European Union

After 2015, there were three interruptions in the business operations of enterprises. Covid-19 has thus joined the digitisation of business, which requires enterprises to coordinate their operations by 2030 in line with the 2030 Agenda for Sustainable Development Goals (Roblek et al., 2020). We understand the green digital transformation as mobilising investments in pure digital technologies. The manufacturing sector is thus undergoing a fundamental transformation process (Beier et al., 2017). Green transformation processes aim to reduce greenhouse gas emissions and waste generation by adopting low-carbon and recyclable technologies to improve sustainability (Fujii et al., 2016). However, digital transformation processes address the sustainable aspect of production and the technical, social, and organisational aspects of sustainability (Beier et al., 2020). The foundations of the development

paradigm of the fourth industrial revolution are thus the digitalisation, informatisation and integration of industrial and other social processes. The development and establishment of data analytics, machine learning, and artificial intelligence and enterprises are critical to implementing processes that will also influence the development of the potential of all three dimensions of sustainability. Artificial intelligence connects digital technology and green technology (figure 1).

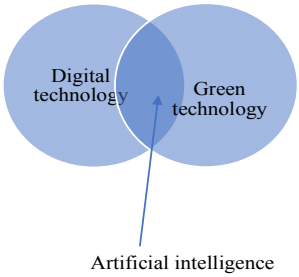


Figure 1: Artificial intelligence as a connector between digital technology and green technology

New technologies are available to enterprises to achieve business excellence in digital business transformation as part of strategies to manage complex and unstable situations. For example, using blockchain technology, the emergence of cyber-physical principles, Big Data analytics, and the use of digital twins that can help identify events in real-time and predict future events, it is possible to achieve the concept of a triple bottom line by improving productivity and product quality (Bracini, 2018). In particular, such technologies enable the transformation of manufacturing, logistics, and supply chain (Xu et al., 2018).

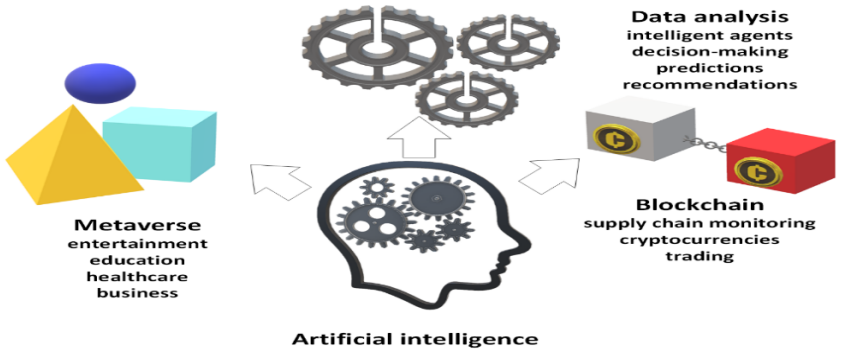
Blockchain technology is essentially a digital ledger of duplicated transactions distributed across the network of computer systems in the blockchain. Each block in the chain contains multiple transactions, and each time a new transaction occurs in the chain of blocks, a record of that transaction is added to each participant's ledger. A decentralised database with multiple participants is called distributed ledger technology. It is a promising solution that effectively prevents hacking and records correction by unauthorised parties and ensures the integration of transparency and traceability into the traditional ecosystem (e.g., financial transactions, supply chains) (Di Pierro, 2017).

Blockchain is becoming increasingly important in an industry that faces complex supply chain networks. Complex networks often lead to unclear decisions and disruptions (both within the supply chain and in the external environment of supply chain members) that paralyse the flow of supply chains. In an increasingly complex business environment, blockchain is used to solve problems enterprises face due to issues within the supply chain (Reddy et al., 2021). Supply chain management personnel must process data in real-time to reduce uncertainties. For example, the results of studies show the impact of real-time data processing on reducing supply chain management complexity and associated uncertainty (Lechler et al., 2019).

On the other side, the so-called metaverse gives the ability to reach fully immersive fictional, non-physical 3D worlds from the comfort of own home, thanks to virtual reality (VR) and augmented reality (AR) technologies. In this virtual ambient, users are usually embodied as human-alike avatars preserving some of their visual characteristics and can interact with either the other participants or the

objects within the environment to achieve some goal. The usage of metaverse covers many domains, from entertainment education to healthcare, economics, trading and even cryptocurrencies (Jovanović & Milosavljevic, 2019; Jovanović, & Milosavljevic, 2022). Therefore, the adoption of metaverse has high potential in the post-pandemic era, as it enables performing various activities such as in the real world, but without any physical interaction of the participants, so the risk of disease transmission does not exist. Additionally, the adoption of artificial intelligence within the metaverse can be highly beneficial, from enabling intelligent behaviour of virtual agents to an analysis of user actions, making recommendations and decision-making leveraging predictions of various aspects (such as prices and demand). Figure 2 shows an overview of enabling AI-powered technologies for green digital transformation in the post-pandemic world.

Figure 2. Enablers of digital green transformation in the post-COVID-19 world



4. Changes in the field of work and employees

Both Corona-19 and the accelerated digital transformation have raised questions about future forms of work organisation, the concept of work, and the need to redefine social policy. Therefore, future work concepts must be sought as the determinants of future organisational change. For example, the new "nimble organisation" concept that can quickly adapt to an exponentially changing world is emerging for 2021. As part of its business model, such an organisation will want to develop strategies to move from a traditional bureaucratic business model to an agile, nimble, learning and connected organisation. These newer business models and smart technologies, combined with proactive decision making, promote ethical business practices that can lead to sustainable business in the marketplace and enable organisations to quickly adapt to the demands of an exponentially changing world (Persis et al., 2021). However, a prerequisite for adopting new business models and digital technologies is acquiring new knowledge and competencies in Industry 4.0. In addition, Human Resource Management (HRM) 4.0 has emerged in enterprises based on the promotion of employees' digital literacy and the acquisition of knowledge in the field of development and innovation so that their skills and competencies remain relevant to work in a new business context under conditions of instability, uncertainty, complexity, and ambiguity (Hiremath et al., 2021). To ensure an innovative, dynamic, and agile business environment, a new governance model needs to be developed that pays special attention to the evolution of HRM 4.0. HRM 4.0 should address employee training and factors relevant to employee retention. Therefore, enterprises need to create a corporate culture that enables a positive climate among employees and

makes them more motivated, efficient and engaged. The enterprise can also influence this by replacing classic hierarchical or matrix organisational forms with agile teams (Balog, 2020). However, the task of HRM 4.0 will also be to deal with ethical guidelines and protect the interests of employees and employers if, in 2025, humans and machines do the work in equal parts. Appropriate measures must be taken to protect workers whose positions will be eliminated by automation. In the event of termination of employment, the worker must be offered career development, retraining and a new job to meet technological developments that require new forms of professional and personal skills. As part of age management processes, it will be necessary to find solutions for older workers with often insufficient digital skills, and on the other hand, it will be necessary to take care of young people at the beginning of their careers. Creating more sustainable employment opportunities will also bring new challenges. It will be necessary to create green jobs, requiring retraining workers to perform these new roles. Workers in enterprises that offer teleworking must be guaranteed the right to switch off at certain times (reducing workload stress) (World Economic Forum, 2020).

The phenomenon and importance of digital platforms must also be highlighted. The EU is also aware of the problem of the new organisational form of the enterprise as a digital platform. Therefore, in December 2020, the Digital Services Act (DSA) was passed. This Digital Markets Act, which is expected to come into force in 2022, will create a safer and more open digital market for all users and ensure a level playing field for enterprises (EU Commission, 2021). The Digital Markets Act refers to the EU's proposal to ensure competition in the digital market by limiting the power of "gatekeepers"-operators of digital platforms with revenues or market shares above a certain threshold. The introduction of digital platform business models is changing the content and role of existing social models in the EU. At the same time, the importance of the workforce is changing.

For example, with the introduction of DSAs in the EU, digital labour platforms are also emerging, offering new opportunities for businesses, employees, and the self-employed and providing consumers with better access to services. However, the emergence of new forms of work (it will change the definition of work) also brings many new challenges. There is, for example, the issue of employment status classification, which in some cases could lead to the dismantling of existing employee rights and social protection in the EU. There is also the question of how older people can advance professionally and how enterprises can ensure that existing employees acquire the necessary skills to perform the redefined work in the digital economy successfully. In addition, the use of algorithms in platform work may raise issues of accountability and transparency. In the context of work within the digital platform, solutions must be found to clarify the employment status of the platform's workers (whether they should be considered employees or self-employed, or whether the platform should be considered an employer). It is equally important to adapt existing labour market institutions and social systems to the specific needs of the platform's workers. Tailored solutions (such as personal accounts) could help consolidate their position in the labour market.

5. Conclusions

This paper discusses the importance of new business models, digital transformation and green transformation of business operations to enable enterprises to survive in unstable and complex situations

in the short term and the medium term. We also focus on how the importance of labour and the workforce is changing in the new situation. However, the study's main limitation is that it reviews the literature, and no primary research was conducted. In the future, it will be necessary to focus on research studies in enterprises and examine the impact of digital and green transformation on business processes, the emergence of new organisational cultures, and changes in human resource policies as a result of increasing human-robot collaboration and the growing importance of artificial intelligence in business processes.

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