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COVID 19 – The External Economic Shock: Changing the Business Models

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ABSTRACT

This essay examines the issue of changing business models as a result of the Covid pandemic, with an attention on business models in the tourism sector. A similar change is historically tangible after a massive external shock to the economy. The terms "external shock to the economy" and "pandemic" as an external economic shock have been clarified. The paper examines significant historical cases and periods in which a general and radical change took place, and the renewal of the business environment and business models as a result of external shocks to the economy. The view is presented that the Covid pandemic as an external shock is a catalyst for a change of environment and change of business models, leading to the forefront in the practice of new business models.

The hypothesis of possible polar business models is considered, based on a summary of distant historical and recent experience in the specific business ecosystem and the algorithm of change. As a result of the study, it was concluded that the change, including in the business models including those in the tourism sector, will most likely require the implementation of self-created club beta versions and "ambidextrous" business models on the one hand and business models based on state entrepreneurship. Both polar business models are emerging from social trends.

Keywords: Business model; External shock; Pandemic; "Polar business models"; Beta business models

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Тази статия разглежда проблемът за промяната в бизнес моделите, която е исторически осезаема след масивен външен шок върху икономиката. Изяснено е понятието “външен за икономиката шок” и “пандемия”. В изследването са разгледани ярки исторически случаи, при които е извършена обща и радикална промяна и обновление на бизнес средата и на бизнес моделите в резултат на външни шокове за икономиката. Защитено е схващането, че ковид пандемията като външен шок е катализатор на излизането на преден план в практиката на новите бизнес модели, които са съществували предимно като бета версии до момента.

Разгледана е хипотезата за възможни полярни бизнес модели, базирана на обобщение на далечен и близък исторически опит в конкретната бизнес екосистема и алгоритъма на промяната. В резултат на проучването се достигна до заключението, че промяната, включително в бизнес моделите, включително и тези в туристическия сектор, най-вероятно ще изисква внедряването на самосъздадени клубни бета версии и "амбидекстърни" бизнес модели от една страна, и на бизнес модели, базирани на държавно предприемачество- от друга страна. И двата полярни бизнес модела възникват от социалните тенденции.

Ключови думи: бизнес модел, външен шок; пандемия; „полярни бизнес модели“, бета бизнес модели

“The Roman god Janus had two sets of eyes—one pair focusing on what lay behind, the other on what lay ahead. General managers and corporate executives should be able to relate. They, too, must constantly look backward, attending to the products and processes of the past, while also gazing forward, preparing for the innovations that will define the future.”

Charles A. O’Reilly and Michael L. Tushman

“ The Ambidextrous Organization”

Introduction

Adverse phenomena periodically occur in the economy, which lead to disturbances in the economic system, then to its adaptation to the new conditions, through change and renewal. Some of them are caused by internal "endemic" factors, such as monetary policy errors, overproduction or underproduction of goods, lack of investment or capital goods or reduction of effective demand. Others are "external", ("exogenous") to the economic system - political upheavals, wars, demographic change. In a number of crises situations, external and internal factors are combined and it is difficult to explain their sequence of occurrence and the severity with which they influence the occurrence of an economic crisis.

In this article we do not aim to consider the set of reasons for the so-called “Covid crisis”. Our goal is to focus on the "pandemic" as an "external shock" to the economy,

which has led to its unprecedented closure and decline. This current phenomenon is, on the other hand, a good issue to study, because it is the question of how change is taking place, and in particular the question of changing business models, as a method of crisis management as a result of the crisis in particular in tourism industries.

Our research task is to shed some light on the change in business models, which causes an unexpected external shock - a pandemic on their change. The changes in the economy caused by the change in demography and the change in relative prices have been studied in detail (North, 2005). The Covid 19 pandemic did not cause such a demographic collapse as the pandemics of the past, thanks to the experience that humanity had gained and subsequently to the achievements of modern science. The initial reactions to the current pandemic were the same as in the distant past - isolation and hygiene. There is a complete resemblance.

We discuss the following issues:

Is there a recurring pattern in the changes caused by pandemics in changing business models. What is the direction of this change today in business models, and in particular, in tourism ?

Methodology and Limitations

The article does not aim to consider the problem of business models as a separate problem to study. It raises the question of changing business models over a long-term historical perspective under the influence of the pandemics. For this purpose, the methodology of historical - comparative analysis between similar historical events and the current pandemic is used.

The methodology of the issue combines comparative historical analysis with statistical data and analysis of research results. A comparative analysis has been used of the historical changes that have taken place globally, and in historical periods far removed from our time, which have been caused by shocks external to the economy and the current pandemic.

For the purposes of the study, comparisons with similar external shocks-pandemics that have occurred in the distant past have been used. These are the pandemics from the middle of the 17th century and from 1918. They were chosen among the other pandemics studied for the following methodological reasons: the mid-17th century pandemic and the 1918 Spanish influenza were comparable in scale to the Covid 19 pandemic.

The pandemic of the mid-seventeenth century coincided with the end of the 30-year war in Europe, which, despite its tragedy, is a fertile historical example of studying two powerful external factors, the pandemic and the war, to bring about change in the economy and society. Based on selected scientific literature and representative accounting data, the presentation of emblematic innovative business models during the Covid pandemic were studied. A deductive approach has been used to present the hypothesis of changing our business models as a result of the Covid pandemic as an external shock to the economy.

Breif Literature Overview

There is a voluminous literature on business models as a tool for successful business. The subject of this study is not the business model as such. In connection with the presentation and the solution of the research task, the research is based on the study of the innovative business models including those in the tourism sector, which developed. (Reinhold et al, 2017). Summarization of the selected research on innovative business models in tourism around several key topics for operationalizing the business model in tourism for research and application in practice has been made. Reinhold et al. research, 2017 is valuable methodologically for the organization and direction of this type of research.

A detailed description of the scientific literature on sustainable business models in tourism to the Covid pandemic was made by Sahebalzamani and Bertella, 2018.

According to the data from this study, by 2016 the publications on nature business models with sustainability-related aspects in tourism are drastically declining. (Sahebalzamani and Bertella, 2018). This is a reason to believe that the need for innovation in business models in tourism, after the crisis of 2007-11 has decreased significantly. In this case, it is reasonable to assume that the created innovative business models in response to the crisis 2007-11 have given good results and it was not necessary to look for a change in them after 2016 - before the Covid pandemic.

Some new "e-business models" in tourism have been studied by Marianna Sigala (Sigala, (2007). The penetration of business models using digital technologies in tourism, which are the result of business anticipation of the need for change, has been studied.

The innovative process in business modeling in tourism is the subject of another branch of research, which focuses on the process of creating innovations, and not specifically on the business model. Such research is done by Tomy Andrianto, Mehmet Ali Koseoglu and Brian King (2021) "A business model innovation process for tourism: findings from a literature review"; Ruhet Genc (2020) "The Impact of Business Model Innovation on Sustainable Tourism"; Benjamin Grab, Robert Bumbac, Roxana Gavri, Cristian Ilie "The winner takes it all - Business model innovation in the tourism industry" (2018).

Regarding the change of business models as a result of the Covid crisis summarizing contribution was made in the book "Covid-19 and International Business: Change of Era", edited by Marinov and Marinova (2020). The publication emphasizes the beginning of the "era of change" of international business, which has occurred during the Covid pandemic. This issue also concerns methodologically the problem of business models in international tourism.

1. Epidemics and Pandemics as an External Economic Shock

External shocks to the economy are caused by non-economic factors that affect the economic situation and development. "Shock" in economics means unexpected events and phenomena that affect the economy. Recently, the Taleb's term "black swans" has been used for a more in-depth understanding and study of "shocks in the economy". By "black swan" Taleb means an event that is unexpected, under the sign of unpredictability (such as wars), which have significant consequences, but in historical perspective they can find an explanation (sic), therefore it could have been expected: "Black Swan logic makes what you don't know far more relevant than what you do know. Consider that many Black Swans can be caused and exacerbated by their being unexpected." (Taleb, 2007).

"Economic shock" can be understood, as defined by the following: "a rapid onset event with severely disruptive consequences covering at least two continents." (Organization for Economic Cooperation and Development, 2011).

What are the specific external factors causing shock to the economy?

When we talk about "external" shock to the economy, we mean phenomena that are outside the pure economy. Leon Walras lays the foundations for this distinction between a "clean economy" and social and ethical factors. (Walras, 1965; Leontief, Walras & Jaffe, 1955).

The material well-being of people and the creation of value from business does not depend only on purely economic factors such as production volume, interest rate, etc., but also on external factors that do not belong to the category of goods or services, are not subject to purchase and sales and business relationships, which is why in the economy they are called "external". Such an "external factor" are wars, revolutions, technological discoveries, such is the pandemic as an external factor also. Without interest rate changes, inflation or deflation, the pandemic affects major economic factors such as human labor and capital formation.

By official definition, these are "factors outside a system that have the potential to change it and cause events that could propagate through it." (Organization For Economic Cooperation and Development, 2011). These are wars, discoveries of monetary metals or shortages of water, energy and other vital resources or infrastructure, etc. supply-side external shocks; also pandemic, financial crises, cyber risks, geomagnetic storms, critical infrastructure disruption, social unrest. (Guido & Ó Gráda, 2017)

External economic shocks can have both positive and negative consequences for the economy. The discoveries of gold or silver (by the metallic standard) as well as wars are most often accepted as the most characteristic external economic shocks. They are essentially non-economic phenomena that affect the economy by creating local incomes and prices that deviate sharply and systematically from the situation that is not affected by them.

The massive penetration of new technologies can also be an external shock to the economy, causing an innovation crisis insofar as they provoke increased productivity, frictional unemployment, temporary price declines and reduced profits in conditions of free competition. Innovation crises are really interesting to study, as the current order for economic development is precisely innovative. On the other hand, a general crisis can plunge the development of technological innovation. For example, in the 2007-

2011 crisis, although the efficiency of innovation did not decrease, every fourth company stopped innovation projects, according to Caroline Paunov's study. (Paunov, 2012).

The results of Caroline Paunov's study for Latin America show the important fact that companies with access to public funding are less likely to abandon these investment projects. This is the conclusion of the study that companies with access to public funding are less likely to abandon these investment projects. This shows the potentially significant role of public funding in stabilizing innovative investment during periods of recession. These conclusions point to the paramount role of government policy in the process of creating and implementing innovation.

Epidemic and pandemic are not precisely and unambiguously defined and distinguished concepts. For example, according to the Oxford Learner's Dictionary, Epidemic means "a large number of cases of a particular disease or medical condition occurring at the same time in a particular community" (Hornby and Cowie, 1995).

An epidemic, according to the New Shorter Oxford English Dictionary, is a disease "normally absent or infrequent in a population but liable to outbreaks of greatly increased frequency and severity," or a "temporary but widespread outbreak of a particular disease." ("Epidemic," 1989).

According to Merriam Webster Dictionary epidemic is "an occurrence in which a disease spreads very quickly and affects a large number of people (medical)." ("Epidemic," n.d.).

"Pandemic" is defined as follows: "A disease that spreads over a whole country or the whole world." (Hornby and Cowie, 1995).

According to the Merriam Webster Medical Dictionary a pandemic is: "An occurrence in which a disease spreads very quickly and affects a large number of people over a wide area or throughout the world." ("Pandemic," n.d.)

According to the classical definition of a pandemic, it is "A pandemic is defined as an epidemic occurring worldwide or in a very large area, crossing international borders and usually affecting a large number of people." (Last, 2001) and a new definition of Pandemic is "the spread of a new disease worldwide." (World Health Organization, 2010).

Here we will look at two pandemics (or epidemics) that have dramatically changed both the political and social terrain and business models.

Let us consider the massive external shock from the second half of the seventeenth century, in which the architecture of modern Europe was created.

A plague broke out in 1647 in North Africa and southern Spain, and in 1648 spread throughout Spain (Scasciamacchia at al., 2012). In 1648 a Central American "yellow fever" epidemic broke out. This epidemic was most likely to occur in North Africa and covers Central America and Mexico. (Goodyear, 1978).

Russia in those years was also not spared of an epidemic. The "terrible plague of Tsar Alexei Mikhailovich" raging 10 years (1654-1655), covered Rzeczpospolita, located in today's Poland, Ukraine, Belarus and Lithuania, and partly in modern Russia, Latvia, Moldova, Estonia and Slovakia, Kazan and Astrakhan. (Chistyakova, 1975).

All these large-scale epidemics formed a large-scale pandemic, which, combined with the Thirty Years' War (May 23, 1618 to October 24, 1648) caused radical changes in the economy, politics and structure of Europe at that time.

During this period, the Epidemic of 1648 developed. The Thirty Years' War (1618-1648), which ended with the Westphalian system of peace treaties, was accompanied by numerous epidemics, which were defined as typhoid fever and influenza as well as typhus. They were called at that time "war plague," "head disease," "soldiers' disease," or "Hungarian fever." (Hays, 2005). Modern historians accept that the total population loss of the German states was between 15% and 20%. (Hays, 2005, p. 100). At the same time, plague with high morbidity and mortality rates was spreading in Italian cities (Plague in Italian Cities, 1630s) and the population in some regions had declined by 50%. (Hays, 2005). Thirty-four Italian cities experienced plague in 1630, and twenty-one in 1631.

Plague claimed high mortality in all the major cities of northern Italy in those years, although some places were more seriously hit than others. In Verona an estimated 33,000 people (of a total of 54,000) died in 1630 – 1631, a frightening 61 percent of the population. [...] Of the larger cities in those years, Venice lost 46,000 (of 140,000), Milan 60,000 (of 130,000), and Florence 9,000 (of 76,000). Surrounding rural communities were affected as well, although wide variations apparently existed. Plague missed some villages in Tuscany entirely, while exacting mortality nearing 50 percent in others. Over northern Italy as a whole perhaps one million people, of a population of about four million, died. Morbidity — the rate of illness — was high as well. Although morbidity has been difficult to estimate precisely, the total number of those who fell ill with plague may have reached as high as 50 % of the population." (Hays, 2005).

Along with this, 1648 is the last year in which the world's population totally decreased. Since then, humanity has steadily increased its numbers.

The year 1648 brings together several external shocks to the economies - wars and epidemics, which led to a sharp decline in Europe's population and internal migration. The change in Europe's economy (as well as that in the social and political spheres) is enormous. In general, the economy and business models have changed dramatically, the tools and geography of world economic domination have changed.

The changes resulting from external shocks are remarkable:

The Westphalian System creates the borders of the nation states in Europe. A new organization of production is created - the era of proto-industrialization begins.

After the recognition of the independence of the Seven Northern Provinces (Dutch Republic) in Europe their economic rise begins and the foundations of their maritime trade domination in the world is laid.

Amsterdam becomes "the pole" of the European world - economy. Amsterdam begins to coordinate the dissemination of trade information, with commercial news spreading from there to Europe every two weeks. Thus, business information becomes imperfect with less information costs, which creates conditions for more efficient business. (Smith, 1984).

The structure of the labor force is changing. An increasing part of the population begins to live on wages and salaries. According to Charles Tilly, the percentage of Western Europeans living on wages increased from 25% in 1500 to over 50% in 1750 and to 70%

by the mid-nineteenth century. After this point, it has not changed significantly. (Tilly, 1983).

Wages of skilled workers are beginning to rise sharply, as shown by studies of wage movements in countries that are restructuring their economies and business models (Brown & Hopkins, 1956; Van der Wee, 1963) in contrast to countries where this does not happen such as France. (Baulant, 1971; Brown & Hopkins, 1957).

The United Provinces and England succeeded for the first time in achieving a rising standard of living in the face of a growing population. The rest of the nations follow the now familiar pattern of economic welfare and population growth moving in opposite directions. (North & Thomas, 1973, p. 23).

A change in the property rights is made common property to fee-simple private property. (North and Thomas, 1973).

The Treaty of Westphalia (1648) created the modern nation-state system that has subsequently characterized the European political scene. (Neal, 2000).

After 1648, various legal and monetary regimes emerged that replaced the existing monetary and credit systems and relations. (Neal, 2000) .

In Russia, the plague epidemic also led to a major change in public order. In 1648 there was exploded the so-called "Salt Riots". (Chistyakova, 1975). "The Salt Riots" are rebellions of poor people and the third class against the increase of the taxation on basic foods. As a result, there is a significant step in the development on the Russian law - Russia's first code of laws was adopted. It legislated new norms and rights, it did not enshrine the right of one sole group, but regulated common legal norms valid for the entire population of Russia (Tikhomirov and Epifanov, 1961).

A great cholera epidemic broke out in the Ottoman Empire in 1647 - 1648. It followed the Yenichar riots and fell on Sultan Ibrahim I in 1648 (Manolova - Nikolova, 2016). This cholera epidemic also developed in conjunction with the "Turkish-Venetian War", which began in 1645. After this external shock created by the epidemic and the war came a period of instability, financial and socio-political reforms in the Ottoman Empire.

This vivid example from the second half of the 17th century illustrates the coincidence of several external shocks on the economy causing radical changes to it.

The pandemic (assuming the definition of a pandemic as a global epidemic) has made these economies face hardships and challenges, which they must overcome. A number of changes that were made at that time proved to be sustainable, others did not. Experimenting and the changing of business models was the logical response of the people's desire to deal with the unusual and unfavorable circumstances that were then plaguing the existing forms of economic organization and their private lives and human efforts to survive and seek new ways out of the economic crisis caused by external shocks were put to the test. Structures and institutions were being created, making efficient business and flexible methods of innovation, specialization and division of labor, trade, banking operations and financial practices possible. (North & Thomas, 1973).

Spanish influenza: Another striking example of a combination of war and pandemic as external shocks is the First World War (1914-1918), combined with the "Spanish

influenza" pandemic of the 20th century which roamed between the spring of 1918 and the early months of 1919 when an estimated 40 to 50 million deaths were caused worldwide. (For comparison - 9 million soldiers died in the First World War.) With them came the fall of the Russian, the Ottoman, the Austro-Hungarian and German empires, and a number of independent states were created. The Bolshevik totalitarian regime was established, under which private property was abolished and total state control over the economy was established.

Again, in the same way as after 1648, the role of the state increases in the economy after 1918.

The exclusive sovereignty of the states becomes stronger and is based on the monopolization of the means of protection - both in armed conflicts and the (disease) pandemic, as governments implement exclusive control over policy instruments, including the contractual system, which is a key element of business relations.

The pandemic, which threatens the lives of millions of people, is such an external shock that it is the reason for the monopolization of the means of protection by the state and the strengthening of its role in the control of the individual, the concentration, control and distribution of resources (Teschke, 2011).

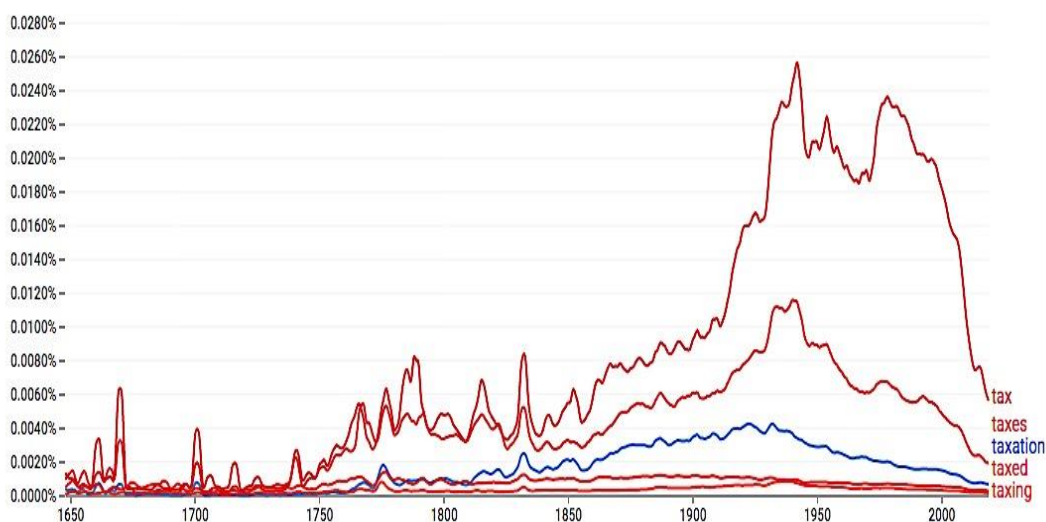


Figure 1 Google Ngram Viewer showing the frequency of use of the word "tax" and its derivatives.

Source: Ngram Viewer, Available at: <https://books.google.com/ngrams/graph?content>

Figure 1 shows how frequently the word "tax" and its derivatives were used in written sources from 1648 to 2019. Before the creation of the modern European nation-states, the terms of taxation were not widely discussed, which means that there was no emphasized interest - respectively no need for study and debate on this issue. Nation-states required funds to perform their functions of protecting the population, both military and medical. It can be seen that it was after 1648 that a burst of interest in official and scientific documents on the problem of taxation emerged. The second such

"burst" of interest in taxes was after 1750 - the beginning of the First Industrial Revolution, which created a new economic style that lasted until the end of World War II. One of the longest peaks, however, is around the First World War and the Spanish Influenza Pandemic, after which, despite much broader research, interest in taxation declines.

External shocks, including pandemics change taxation in connection with new business models and the increasing role of the state in the economy and society.

After 1648, different, new financial and monetary systems were formed in Germany, France and the Seven Northern Provinces, which are still characteristic of them in modern times - commercial banks, money markets and information networks for private credit, along with federal, parliamentary and monarchical public finance authorities. Each of them was called upon to create conditions and scale for long-distance trade enterprises as a new business approach, as well as for the needs of a strong nation state.

Each system has succeeded, under quite different legal and political regimes in providing the mediation between savers and investors necessary to keep each country at the forefront of economic progress from 1648 to 1815 However, when shocked, the three systems react differently. (Neal, 2000).

The Covid 19 virus pandemic that broke out in 2019 is fortunately not combined with a global war. But its impact on business can show us the strength of the external shock to the economy that it is causing.

Businesses in the tourism industry and international transport services have experienced a deep crisis that has led to an unprecedented rise in unemployment. The highest increase in unemployment is observed from the beginning of the pandemic - the beginning of 2020 to May 2020, after which globally, but not at the level of state economies there is a decline.

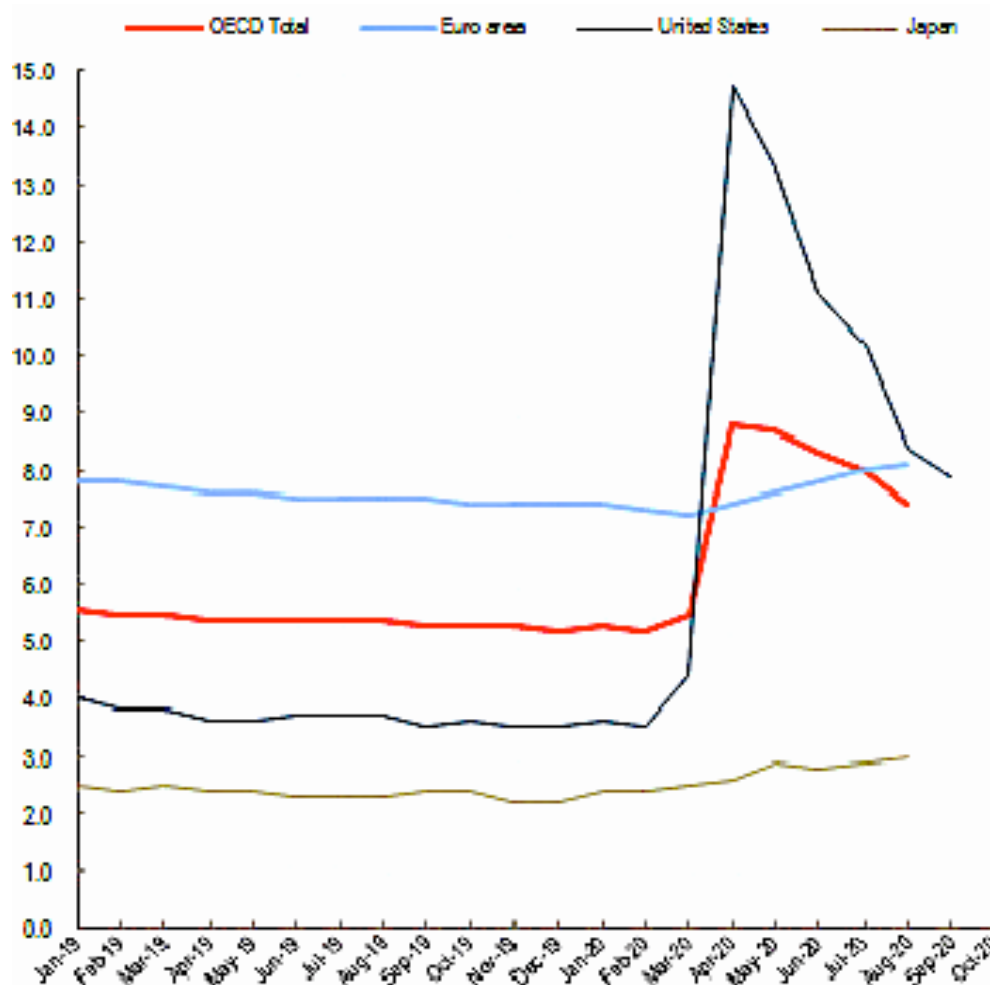


Figure 2 Unemployment rate, Total, % of labor force, Jan 2019 – Sep 2020

Source: Organization for Economic Cooperation and Development. (2020). Total, Euro area, USA and Japan; Unemployment Rates News Release. <https://www.oecd.org/sdd/labour-stats/unemployment-rates-oecd-10-2020.pdf>

One of the most affected sectors is tourism. In total, tourism in the world in 2020 suffered a decline of 74% in international tourist travel. The pandemic "loss of USD 1.3 trillion in export revenues - more than 11 times the loss recorded during the 2009 global economic crisis. The crisis has put between 100 and 120 million direct tourism jobs at risk, many of them in small and medium-sized enterprises." (UNWTO, 2021). Naturally, the decline in tourist travel has a cumulative effect on the transport sector, income, employment not only in it but in other industries. Tourist industries have a direct contribution of an average of 4,4% in GDP and 21,5% in exports of services to developed countries by the Organization for Economic Cooperation and Development (2020).

The Covid pandemic also caused a huge decline in international trade and services.

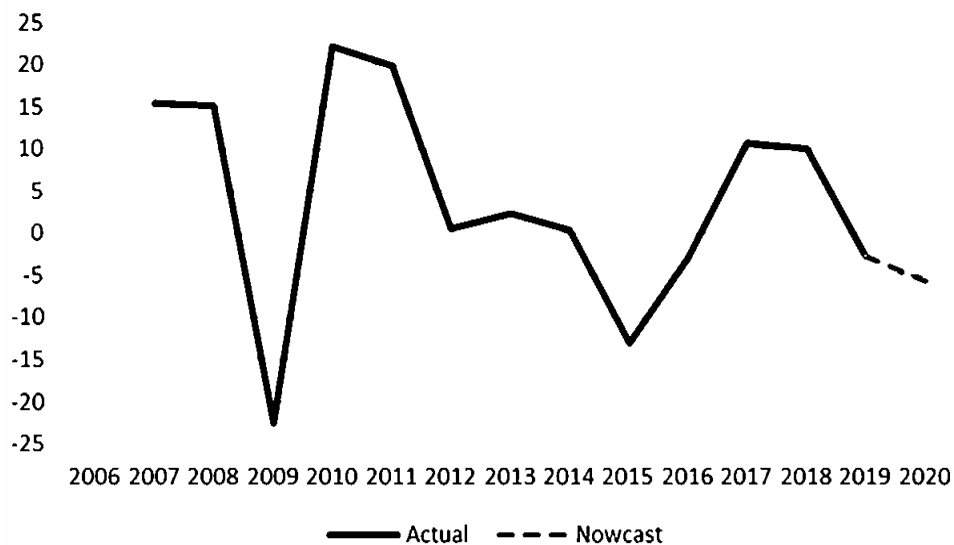


Figure 3 Merchandise trade (% of change, \$ US).

Source: UNCTAD: COVID-19 drives large international trade declines in 2020; 2020; <https://unctad.org/news/Covid-19-drives-large-international-trade-declines-2020>

The Covid virus pandemic has had a negative impact on capital. In the first place, the Covid pandemic tested human and intellectual capital, social capital, the reproduction of material capital, the very processes of material production, its realization, distribution, and services. The full recovery of the sectors in accordance with the business environment has become imperative.

2. Innovative / Traditional Solutions

2.1. Innovative business models in the pre-covid economy

Salvation from the external shock was sought in two directions:

1. Again, like in 1648, in strengthening the role of the state through government action and its protective functions, and at the same time
2. Through technology and acquired new knowledge - in this case through digitalization. However, its infrastructure and value-added intellectual capital for the economy, in the face of external shock, are in the hands of several private companies that own it.

Government support in countries, monetary subsidies and compensations, have proved to be crucial for the survival of the business and for future competitiveness. Data provided by the IMF shows that developed countries have supported business with about 20% of their GDP during the pandemic so far, while small economies have allocated about 2% of their GDP for this purpose (Lalitsethi, 2021).

For the time being, in the face of the ongoing external shock, only the size and effectiveness of government support for the business will keep it on the market. But this hypertrophy of the role of the state in the economy is also of strategic danger to the market economy as a system. Let's remind F. D. Roosevelt's New Deal, which

introduced government support temporarily, but it remained permanent. (Powell, 2004).

Digital technology has emerged as a parallel savior to governments. However, digitalisation cannot produce food, purify water and supply the material goods needed for production and consumption.

Digitalization, irrespective of its previous development, has proved to be a serious but partial compensatory mechanism during the Covid pandemic. However it has not been able to become a complete substitute for material economic relations. The existence of the digital infrastructure owned by BigTech (Alphabet, Amazon, Facebook, Apple and Microsoft), which supports an oligopoly over the key resource in the pandemic - information, is a threat to the rules of private competition on a global scale, as well as to national governments.

The companies began to look for means to deal with the situation on their own. The pandemic sparked a change in their business plans that lowered their expectations of profits and thus they began to optimize their costs, looking for new ways to reach consumers and production resources. The role of information as an object of trade and competition has become stronger.

The Pandemic raised several general questions about the business models they run, how they change, experimenting with new business models, and their feasibility.

In the first place, it was a question of preserving human and intellectual capital, respectively, through state compensations and the information infrastructure necessary for their functioning. The state must play an important role here with its tools.

The need to develop information as a data ecosystem with a strategic perspective in order for it to be able to handle such a large-scale and sustained external shock was strongly emphasized. This means that Big Data should be universal and easily accessible and its reliable interpretation should be available to companies. This can only be achieved through unconditional, free cooperation between the Internet companies and science. But in this area, as has been said, the oligopolistic position of BigTech is evident.

Instead of working closely together, the "two lines of salvation" - the state and the digital giants - found themselves in a competitive position. Wichowski explores the issue of the nominal state of global Internet companies that have the information and control over it. (Wichowski, 2020). The concentration of information and its control by mega-internet corporations is a risk for the necessary symmetry of the information for the business and the proper functioning of the markets. These companies have created intangible capital without borders - information capital, which is inherently intellectual capital.

The Westphalian system that was created in 1648 - the sovereignty of states, in the Covid 19 pandemic as an external shock, is clearly affected by the nominal "air" states of supranational information corporations. They challenge its role as supreme sovereign and this supreme sovereign becomes dependent on them, a participant in the information trading market having problems with information control.

Thus, in this external shock, the special significance of intellectual capital and human capital manifests itself.

The intellectual capital on which the information technology software is built is the one that creates the value added in the conditions of external shock, and the human capital is the one without which the material forms of capital and the intellectual one could not exist.

Businesses have become doubly dependent on their functioning and survival, as well as strategically on state aid and the digital infrastructure of oligopolists.

The World Economic Forum in Davos 2021 announced the conclusions that the transformation of business models is:

key to unlocking new value for business, customers and society in the world after COVID; only a small number of companies have undertaken the transformation of their business models, while other companies have received insignificant benefits through automation, process or changes in the work model. Only a small number of companies have managed digital transformation in the form of business model transformation. (Linz, 2020).

According to the conclusions of the Davos Forum, "Transformation to more inclusive business models is proving more sustainable." This conclusion was made without stating its reasons, but it shows the way of thinking of the people at the Davos Forum.

International Monetary Fund's Governor Kristalina Georgieva spoke at the same forum for building Shareholder's Capitalism (Lalitsethi, 2021). "Stakeholders with Capitalism" was announced as a model for the transformation of the Davos summit. (Schwab & Vanham, 2021b).

Klaus Schwab, the organizer of the World Economic Forum in Davos, talks about changing the system - the transformation of capitalism into "stakeholder capitalism" (Schwab & Vanham, 2021a).

The same is voiced by the business. Nicholas M. Gilani, Managing Partner at Cyal Advisors, Dubai, UAE, believes that capitalism should be transformed into "capitalism with a human face" (Gilani, 2020). History repeating itself. In 1968, Alexander Dubcek created the concept of "socialism with a human face" (Stoneman, 2015).

The dramatic impact of pandemics (and the external shocks in general) on business models and the future of companies requires an attempt to forecast their prospects. Each company was forced to analyze and evaluate its business model, the direction of its change and chance.

BigTech has become richer than the states and this did not happen in the Covid crisis. (Hunkar, 2018).

The process of creating supranational economic powers began and developed long ago. While the state continues to impose newer and even newer regulations, the supranational space of digital giants provides much broader and significantly less regulated opportunities for big profits.

Thus, the boom in profits from investing in digital giants has become an attractive place for people looking for profit and wanting less regulations to achieve it than in a boundary-framed bureaucratic state. As a result, public capital markets are shrinking.

The number of publicly registered companies peaked around the second half of the 1990s, at around 8,000, and since then the number of publicly listed companies on US stock exchanges has been declining and fluctuating at lower levels. In 2005, they were

6,300. (Israel, 2020). Data also vary. According to Credit Suisse, in 2016 this number dropped to about 3,600. In 2017, approximately 5,100 US public companies were publicly listed (Friedman, 2017), while in 2020 it is estimated that 6,000 companies were traded (Spencer, 2020). The reasons are significant regulatory hurdles.

This overview of the state of the powerful digital sector for years shows that the external shock caused by the Covid pandemic to the world economy has actually taken out from the wardrobe the "warm clothes for winter". The pandemic also strengthened Big Tech's influence and forced companies to use their resources to a large extent to survive in the market. This has further strengthened the blunt significance and influence, further aided by policy decisions, at the expense of digital companies with less influence.

Thus the new business models were imposed and developed, as the model of the centrally planned economy developed after 1913.

In the years preceding the Covid crisis, in order to reduce transaction and other costs, companies created a wide range of new, social, for the most part, business models. Here we list 15 business models, because their empirical application, theoretical study of their results has shown their strategic applicability by incorporating external economic factors. With a greater history and distribution are (the cited authors and research are a vivid illustration, according to the author, of the studies of these business models, exhaustiveness is not possible):

- B-corporation (Fischer et al., 2019)
- Crowd sourcing (Estellés-Arolas & González-Ladrón-de-Guevara, 2012)
- Crowdfunding (Lehner, 2013)
- Platform–scale model, ("*Value creation: shift from processes to interactions*") (Choudhury, 2021)
- Industrial symbiosis (Chertow, 2007)
- Take-back management (Webster & Mitra, 2007)
- Frugal business models (Rosca et al., 2017)
- Closed-loop production (Winkler, 2011)
- Product service systems (Reim et al., 2015)
- Pay-per-use (Gebauer et al., 2017)
- Peer-to-peer innovation (Bruton et al., 2015)
- Product-service systems (PSS) (Reim et al.)
- Sharing economy (Trenz et al., 1918)
- Gift economy (Barbrook, 1998)
- Economy of Communion (Baldarelli, 2011; Baldarelli et al., 2015).

The penetrating model is that of "Sharing economy". It is accepted as a common feature of the new business models in tourism since the crisis of 2010 and since the UNWTO. "Sharing economy" here means "New Platform Tourism Services or the so-called Sharing Economy." (2020: *Worst Year in Tourism History with 1 Billion Fewer International Arrivals*, 2021). This is a platform that includes on the supply side private tourism services: information, accommodation, transportation, food, tourism activities and others on a digital intermediate platform. (2020: *Worst Year in Tourism History with 1 Billion Fewer International Arrivals*, 2021).

The World Bank Group in “Tourism and the Sharing Economy: Policy and Potential of Sustainable Peer-to-Peer Accommodation”. (World Bank Group & Bakker, 2018) defines the shared economy as “P2P”, limiting it to the sharing by individuals of their unused assets, using digital platforms. (World Bank Group & Bakker, 2018). The main example of a business model that WBG is researching and recommending is Airbnb. But in the Covid crisis, according to Airbnb's annual declaration, neither the situation nor the prospects for it are bright. “In early 2020, as COVID-19 disrupted travel across the world, Airbnb’s business declined significantly. But within two months, our business model started to rebound even with limited international travel, demonstrating its resilience”. (Airbnb Inc.,2020). Shared in the annual declaration is the recognition that “The COVID-19 pandemic and the impact of actions to mitigate the COVID-19 pandemic have materially adversely impacted and will continue to materially adversely impact our business, results of operations, and financial condition.” (Airbnb Inc., 2020). In the Covid crisis, Airbnb's digital platform and shared economy model were unable to be profitable (Airbnb Inc., 2020).

Let's look at the performance of several other companies involved in the tourist business during the Covid crisis in terms of net income and revenue.

Table 1 Net Income and Revenues of Selected Companies from Tourist business

Company	Net income (loss)		Revenues	
	2020	2019	2020	2019
Tripadvisor (mln \$)	(289)	126	604	1,560 \$
Expedia Group Inc,(mln \$)	(2,687)	565	5,199	12,067
Thomas Cook India (mln \$)	(2,490.7)	2,081.6	6,948.44	6,771.68
Mouzenidis Travel (thous. RUB)	(34 054)	3 736	19 789	212 182
Biblio Globus TK (thous. RUB)	(58 952)	9 811	163	1 154 263
Airbnb (mln \$)	(3,887,851)	(351,538)	209,747	293,618
Marriott (mln \$)	(267)	1,273	10,571	20,972

Source: Tripadvisor, Inc. Annual Report, 2020, p.33: <https://ir.tripadvisor.com/static-files/fef1a79b-0b14-40b3-ae35-da7ee030aca4>;

Expedia Group Inc, United States Securities And Exchange Commission, Washington, D.C. 20549, Annual Report Pursuant to Section 13 OR 15(d) of the Securities Exchange Act Of 1934, Expedia Group, Inc. <https://sec.report/Document/0001324424-21-000015/>

Thomas Cook India, Integrated Report For the year ended, 31 March 2020, p. 153). [https://resources.thomascook.in/downloads/Thomas_Cook_\(India\)_Limited-Annual_Report_2019-2020.pdf](https://resources.thomascook.in/downloads/Thomas_Cook_(India)_Limited-Annual_Report_2019-2020.pdf).

Mouzenidis Travel, Annual Report 2020. https://www.audit-it.ru/buh_otchet/5007040298_ooomouzenidis-trevel.

Biblio Globus TK, Annual Report 2020. https://www.audit-it.ru/buh_otchet/7708343294_ooobiblioglobus-tk

Airbnb Inc, United States Securities And Exchange Commission Washington, D.C. 20549 FORM 10-K, For the fiscal year ended December 31, 2020, (pp. 3, 12). https://s26.q4cdn.com/656283129/files/doc_financials/2020/q4/84dcc076-235d-4520-805c-0e64b6fe8c40.pdf), https://s26.q4cdn.com/656283129/files/doc_financials/2020/q4/84dcc076-235d-4520-805c-0e64b6fe8c40.pdf.

Table 1 shows the presentation of three types of travel companies: Expedia, which is exclusively an online travel company, Tripadvisor, the world's largest travel guidance platform, Airbnb - these are the largest and given as an example with their online-based business models companies; Marriott, an example of a specific innovative business model, also cites reputable sources as a benchmark, and a third type: Thomas Cook India, the successor to a traditional tourism campaign, and two high-ranking Russian travel companies using a traditional business model.

The financial results of the three types of companies show that entirely online-based platforms, a traditional company such as Thomas Cook India and much smaller Russian travel companies with a traditional profile, such as Mouzenidis Travel and Biblio Globus TK are negative ones. Marriott also did not fare better in the Covid situation, relying on its asset-light business model and customer loyalty model as revenues fell to \$ 10,571 in 2020 from \$ 20,972 in 2019 and the company lost at the end of 2020 \$267 mln, having had a profit of \$ 1,273 in 2019. (Marriott International, 2020).

This comparison representative for the three types of companies, shows that those who have adopted the existing business "innovative" models have not performed better than those who have followed the traditional model. The crisis caused by the external shock has had an equally negative impact on the tourism business, whether or not they have adopted the new "web" business models.

One of the main reasons for this performance is the closure of their borders and deterioration of contract terms. The Covid crisis has led to a profound deterioration of contractual relations. (*Coronavirus: Effect of the Epidemic on Contractual Obligations*, 2020, Obeid & Khalife, 2020). The "force majeure" circumstances came into force in the context of the "state of emergency" declared by the states.

The treaty as an institution in the pandemic was undermined not only between companies but also on a comprehensive, global level. This is evidenced by the recognition of UN Secretary-General Antonio Guterres: "The response to the pandemic, and to the widespread discontent that preceded it, must be based on a New Social Contract and a New Global Deal that create equal opportunities for all and respect the rights and freedoms of all." (Gutierrez, 2020).

For example, Airbnb announces in its 2020 annual report that the emergence of government regulations in some cities and districts is an obstacle to the short-term leases that underlie their business model. (Airbnb Inc, 2020).

2.2. Business models - prophecy of scientists and practitioners

As with the change of business models after 1648 and after 1918, and in our time with this external pandemic shock, empirical experiments can prove decisive. Such also already exist. They are Beta versions of business models that are not so much

theoretically as practically justified. The beta version generally means that the company has created a product with a small team that tests a limited number of users in a short time, and after completing this test, the company will exit the "beta version" and will officially start mass production (Morgan, 2008).

The characteristics of Beta business models such as "ambidexterity" are presented in the researches as these by O'Reilly and Tushman (2011), Simsek (2009); Andriopoulos and Lewis (2009); Park, Pavlou and Saraf (2020), Gürlek (2021).

Such beta business models that have emerged in practice are :

Localized low-cost business model; One-off experience business model; Beyond advertising business model; Markets are conversations business model; Low-budget innovation business model; Community-funded business model; Sustainability-focused business model; Twisted freemium business model; Unlimited niches business model; In-crowd customers business model. (Arts, 2010).

As their names suggest, these business models have several characteristics. They are not developed with the methods of science and are local. "Localized low-cost business model" and "Beyond advertising business model" are, for example, a denial of conventional business culture and style.

The Royal Bank of Scotland creates a Beta business model "digital bank", for sole proprietors and limited liability companies with up to two owners, excluding public and state companies, as its specific beta business model. (Megaw, 2019). The model combines an individualized approach to start-ups and SMEs, with the digital platform Mettle, which integrates accounting software with communication to an accountant or online accounting systems, tax authorities, with a 100% free account. (*Is Mettle Right for You? | Eligibility Criteria | Mettle*, n.d.).

The University of St. Gallen has developed a Business navigator to build new models in the face of the Covid crisis (*Business Model Navigator*, 2021). The work of Oliver Gassmann, Carolyn Frankenberger and Michaela Csik from the Institute of Technology Management, part of the Swiss University of St. Gallen, showed that 90% of all business models are a recombination of 55 existing models. (Gassmann et al, 2014). The five business models patterns that summarize the different options are "virtualization, subscription, orchestrator, de-materialization, localization" (*Business Model Navigator*, 2021, Grassman et al., 2012). In the event of a pandemic, the tourism sector should rely on the basic pattern "localization" as a baseline and adapt mainly to it.

The study of business models necessarily goes beyond tourism activities. This is understandable, because modern tourism, despite its internal species diversity, is subject, as a business, to the general characteristics of the business - increasing sales and increasing profits. However, the tourism has an indisputable specific feature compared to other types of business, as evidenced by the statistics – it is developing due to the increase in personal leisure time. The index of personal travel significantly exceeds the index of business travel. For the 2018 forecast, the first is 108 to 75 (2010 = 100). (Eurostat, Tourism statistics - characteristics of tourism trips, Index). Tourism is a "leisure industry". Its recovery from crises and growth is linked - as a leisure industry -

to an increase in the supply of leisure and is a competition in the quality of leisure (if we can apply Robert Fogel's research in this context). (Fogel, 1993a). Robert Fogel estimates that in the 20th century, the typical worker spends two-thirds of his time in leisure activities, compared to work and eagerly awaiting retirement, until the working hours of the "upper class" have shrunk compared to the 19th century. (Fogel, 1992; 1993b, 1994, 2000).

The scientific literature on the new business models in the tourism sector has been studied in a precise selection of publications by Reinhold, Zach and Krizaj (2017) in order to inform the tourism sector's search for ways to innovate and change outdated business practices.

They group the research around 4 topics "sector specific configurations, the role of different value types, design themes for consistency, and regulatory contingencies" in destinations. (Reinhold et al., 2017). Regulatory circumstances are presented by the studied authors as "innovative opportunities for future, often sustainable development." These are various state measures facilitating the implementation of the tourist business and creating preferential conditions for it in the given destination.

The business model is a tool for gaining competitive advantage especially important in a complex crisis situation. According to the navigator for constructing new models in the conditions of the Covid crisis (Gnos, 2020) there are only 2 top business model patterns in the hotel industry "Affiliation" and "Customer Loyalty". (Gnos, 2020). Models of this type need digitalization but they have a material and human nature.

As it turns out, digitalization is only part of the transformation that is needed to respond to the pandemic crisis of our time. The beta business models mentioned above suggest a double transformation - both of the physical and the "air" part of the business. The study carried out by Charles A. O'Reilly and Michael L. Tushman "The Ambidextrous Organization" (2004) shows that it is the "ambidextrous" models (from "ambidextrous" - skills for working with the left and right hand) of the companies that they surveyed in which over 90% of the companies that were "ambidextrous" achieved their goals.

3. Main Polar Business Models in Covid Economy

New models are created in conditions of duality:

1. State - Private BigTech:

- The state as a source of monetary and non-monetary subsidies for business.
- The power of several private digital mega-corporations with global influence.

2. Human and Intellectual human's capital - Artificial intelligence

- Human capital as a source of intellectual capital Intellectual capital, as a creator of added value in conditions of lockdowns, closure and distancing
- Digitalization and Artificial Intelligence.

Indeed, the Covid situation creates new models of social relations, a desire for a general change in the economic style of "capitalism" and, of course, requires a change in business models.

Focus has had to immediately shift from activities around growth, branding, business improvement and digitalization, to the urgent steps needed to ensure business continuity and resilience. You have to avoid the tendency to slash and burn your transformation and revert back to your traditional working model, which is human nature. (Bates, 2020).

From the review of the company's business models it is clear that they have more social characteristics, or we can call them real "stakeholder models". These are business models that are much more customer and community oriented than conventional business models.

Another common feature is the creation of a "digital copy of the business", which will compete or work in conjunction with the traditional material business.

In this situation, there are two poles - that of the state whose resources are in the government and the local authorities, and that of digitalization, whose resources are in several large private companies. In our opinion, this is how two main polar business models emerge. Both polar ways need public / customer engagement.

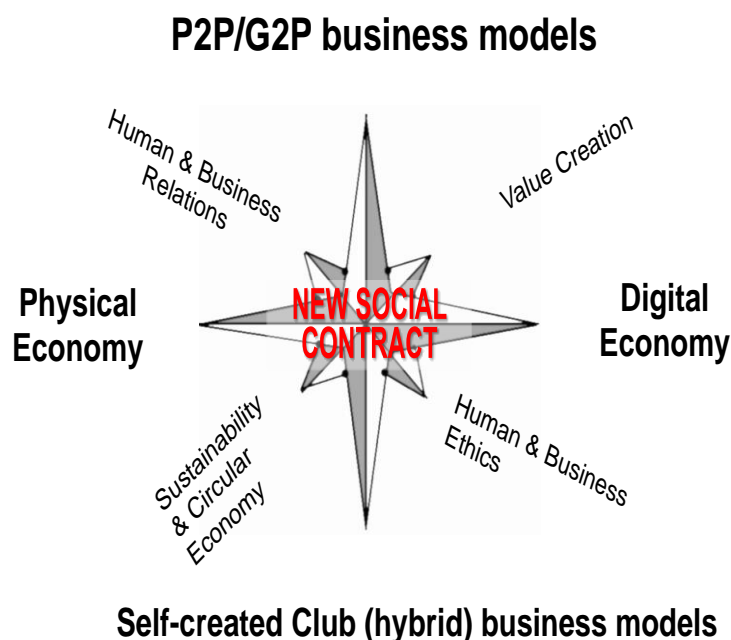


Figure 4 "Rose of the Wind's of New Business Models.

Source: Author

At the First Pole is the Government. Models dominated by government participation. Here it is possible to form a new type of Public to Public models or Government to Public models. (P2P or G2P).

This is the business model of the business of governments and society that pays taxes on government spending. Governments are increasingly taking on the role of

entrepreneurs, especially with regard to the health sector and investment in public services. It characterizes the more active role of government. During the pandemic shock, it became clear that goods produced with public funds were not clearly redistributed. The ownership-membership arrangements were violated. Public non rivalrous goods like medical care became Rivalrous. Vaccine shortages confirm this conclusion. With these models it is possible to see public services especially medical care, science, as investments rather than liabilities.

In this model, different from the well-known traditional public-private partnership, the participation of the society through new forms of organization and relationships is necessary for its participation in the control and distribution of the public resources.

The Second Pole are self-created business models. The business model of the organization is not a phenomenon isolated from the outside the existing world. It depends on the ecosystem the organization is situated in or, as it has recently been called, the "business ecosystem". The business ecosystem covers the whole set of participants in the process of value creation, all capitals, factors, including non-economic factors such as those to which the organization is subjected in its activities, which include both the material, spiritual and digital world.

Our world is material in nature and its material basis cannot be changed by digitalization. Digitalization is rather a complement to physical reality. On the other hand the physical reality of our world is projected onto the ecological and circular plans for the development of the economies (Accenture Strategy, 2014). Therefore, the business models of the Covid and post-Covid economy, which by necessity must be adapted to a pandemic risk, must take into account not only digitalization but also the physical basis of the world.

Given this circumstance, we would agree that self-creating new business models would be club business models. The theoretical basis of club organization are the scientific formulations of James M. Buchanan. (Buchanan, 1965). The Theory of clubs is the general link, filling the gap in theory between private and pure public goods, including analysis and problem ownership.

The size of the participants/consumers is usually not included in the utility function in the neoclassical paradigm. Therefore, public goods such as beds in hospitals, cures, apparatus, were not enough in this exogenous shock. This caused the long isolation. The problem of "free-rider" and "caterpillar" became clear.

The choice between the two paths - P2P / G2G and unregulated social business models must be largely determined by efficiency considerations.

Such efficiency can be sought more in hybrid innovative business models such as the club organization, in part digitalized. Club goods are quasi-public goods. Club structures have indispensable stricter ethical rules than public and cooperative such; closer control over members and more transparency in their application. "Community building is becoming the key goal of the creators of modern business models" and "The prospects for society are closely tied to the development of group life." (Jabłoński & Jabłoński, 2020).

In essence, all the new business models mentioned above that emerged before the pandemic are social business models.

Business-to-Business (B2B) (Matook & Vessey, 2008), Customer-to-Customer (C2C), Many-to-Many (M2M) - like e-marketplaces Internet-based business systems that support all activities related to transactions, exchange and interactions between different kinds of companies. (Ojeda et al., 2020).

In this regard, it is possible to develop barter models of trade between companies and customers of the type considered by Haddawy et al., 2005.

Conclusions

Historical examples of external shocks, including pandemics, show that they are followed by radical changes in the social contract, the business environment and business models. New rules are created on which society is based, new business models adapted to the changing conditions. The current external shock caused by the Covid 19 pandemic only catalyzes the emergence of innovative pre-Covid innovative business models as a tool for corporate governance. Not only did digitalization of the business become the main feature of the Covid situation, but also the overall characteristics of business models originated long before the Covid isolation. What is new about them is their enforced wide distribution, the variety of combinations in their canvas and the growing role of the digital method, which becomes inevitable for companies in conditions of external shock. Digitalisation has emerged as a lifeline for doing business in the face of lockdown, and it is likely to remain so after the end of the pandemic as a means of managing business risk and an additional means of creating value. Despite the basic call for more digitalisation, the human world is fundamentally material, and business must grow in a way that combines its material foundation and digitalization as an aid to value creation.

The outlines of two polar main business models in the pandemic are being formed - that of the public-state and the self-creating club business structures. The pandemic demonstrated the deterioration of contractual conditions - not only in the field of business relations. There is a need for a new social contract to become the basis of a favorable ecosystem in order for people to expand their potential as well as to find new ways of managing business, which by characteristic are social. This new social contract is also connected to the common for all mankind need of sustainability, the issues of business ethics in a world that is becoming increasingly digitalized and robotic, and last but not least the preservation and guarding of the material foundations of the human world.

The theoretical basis of business models during a pandemic is the club theory. Since the trend is already established, they will be "social". The club and social nature is especially relevant for the tourism business. New business models adapted to the pandemic crisis have become models of two poles. At the first pole are models dominated by government participation. Here it is possible to form a new type of Public to Public models or Government to Public models (P2P or G2P), different from the well-known traditional public-private partnership.

Self-creating business models are hybrid, local template, club models, or models with a "digital copy of the business". For the tourism business, the most relevant are club and

localized business models. In its their “beta” type business models may prove successful, keeping in mind that traditionally innovative, not showing profitability in the Covid crisis, new business models in the pandemic crisis usually require a double transformation, turning them into "ambidextrous".

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