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Zlatko Nedelko & Darja Boršič

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## **5<sup>th</sup> International Scientific Conference**

Is it Time for a Total Reset?

Editors

**Zlatko Nedelko**

**Darja Boršič**

May 2021

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# COVID-19 & MANAGEMENT: BUSINESS NIGHTMARE OR A UNIQUE OPPORTUNITY FOR SUCCESS?

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**Abstract** The COVID-19 pandemic turned the world upside down overnight. Everyday change is the new normality. This presentation aims to consider changes in managing organizations as consequences of the COVID-19 pandemic. The critical question for modern managers is whether the current COVID-19 pandemic is a business nightmare or a unique opportunity for success? We should also consider some other specific questions: (1) What can we do to reorganize our office? (2) Should we, and if yes – in what way, change communication with our team members? (3) How to achieve work-life balance now, given that we have not managed to do that before? (4) Is there still a chance for those who have not digitally transformed so far? (5) How does the new normality changing organizational culture? (6) How to manage organizational values to support the new business normality while being authentic simultaneously? (7) Are the troubles caused by the pandemic an opportunity to become more aware of why we are doing what we do and then focus on it and thus have more purpose-driven organizations in our environment? Answering these and some other questions, we will take a peek into the future of management.

**Keywords:**  
COVID-19,  
change  
management,  
new  
business  
normality,  
future of  
management,  
purpose-driven  
organizations



# HUMAN DEVELOPMENT EQUALIZATION ISSUES WITHIN THE EUROPEAN UNION

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**Abstract** The establishment and enlargement of the European Union have been partly motivated by catching up on higher living standards of living. This study examines whether developmental convergence can be demonstrated among the NUTS 2 regions of the Union. The existence of convergence among the EU is generally approached from an economic perspective by using macroeconomic indicators. Although these metrics are suitable for comparing the performance of Member States, they are less reflective of each country's social well-being. Several analyses, usually based on mortality indicators, have been conducted in an attempt to characterize convergence from a social point of view. However, these calculations are usually limited to country-level convergence analyses with diseases and causes of death in their focus. Thus, this study applies a complex measure, the Human Development Index (HDI), to examine convergence at a regional level. For this purpose, the regional HDI is calculated and the existence of absolute and conditional beta convergence is assessed. Our calculations confirm convergence among EU regions over the period between 2006 and 2017, but the analysis also reveals divergent trends and various national characteristics that will call into question the long-term sustainability of equalization.

**Keywords:**  
equalization,  
beta-convergence,  
European  
Union,  
Human  
Development  
Index,  
regional  
level

## 1 Introduction

The presence or lack of convergence between the Member States of the European Union is generally approached from an economic point of view with the indicators used in the analyzes being predominantly macroeconomic ones, such as gross domestic income, unemployment, government budget balance, government debt, inflation, and other characterizing economic indicators.

These metrics are evidently suitable for comparing the performance of EU Member States, but they are less reflective of each country's social well-being and standard of living. Over the past twenty years, several analyzes have attempted to characterize catching up processes from a social point of view, typically using mortality indicators. Life expectancy at birth is per se realistically indicative of the standard of living of a nation or region, so it can be a fitting indicator for convergence analyses. However, the use of mortality indicators is generally typical of studies that examine convergence comparing national regions or in a global context whereas the number of studies analyzing convergence within the EU is negligible and mostly focus on diseases and causes of death (e.g., Frenk, et al., 1991; Gächter & Theurl, 2011; Janssen, et al., 2016). Thus, there is a great amount of research examining convergence between EU Member States but only from an economic point of view (e.g. Busch, 2014; Goecke, 2013; Kaitila, 2013; Raiser & Gill, 2012) and there are publications examining convergence from a social welfare perspective, but not between EU Member States. My research topic is built on the resulting research gap.

In order to be able to assess the convergence process between the Member States of the Union from both an economic and a social point of view, my calculations are based on the Human Development Index (HDI). I furthermore examine the development of HDI within the EU at the NUTS 2 (Nomenclature of Territorial Units for Statistics – basic regions for the application of regional policies) level rather than the Member State level. This deeper territorial analysis is justified not only by the fact that huge differences in inequality can be found within countries, but also by the EU's support policy being applied to NUTS 2 levels, i.e. our regional analysis makes it possible for us to examine the EU's effectiveness in its redistribution activities.

The central question of the paper is whether convergence between the various levels of development of the respective EU regions can be demonstrated, i.e., whether the lagging regions can develop faster than their more developed peers.

## 2 Methods and data

### 2.1 Beta convergence

The calculations in the paper are based on Barro and Sala-i-Martin's convergence theory, which is derived from Solow's long-term exogenous growth theory. Based on their model, we distinguish between absolute and conditional beta convergence: in the case of absolute beta convergence, convergence analyzes are based on cross-sectional data and the calculation refers to the regression between the annual average GDP growth rate for a given time interval and the GDP at baseline:

$$\frac{1}{T} \log \frac{y_{i,T}}{y_{i,0}} = \alpha_0 + \alpha_1 \log y_{i,0} + \varepsilon_i \quad (1)$$

where  $\log y_{i,T}$  and  $\log y_{i,0}$  are the natural logarithms of GDP per capita in PPS at the initial and T<sup>th</sup> time,  $\alpha_0$  is the constant and  $\varepsilon_i$  is the error term.

Convergence can be detected if  $\alpha_1 < 0$ , so if this is the case, the rate of convergence ( $\beta$ ) can be determined as follows:

$$\beta = -\frac{1}{T} \ln(1 + \alpha_1 T) \quad (2)$$

Beta shows the average percentages of distance from steady state over a year (Vojinović, et al., 2009).

In this study, I examine the convergence of regional HDI rather than GDP by writing the following regression equation using the cross-sectional data series of regional HDI for 2006 and 2017 for several regions:

$$\frac{\ln \left( \frac{RHDI_{2017}}{RHDI_{2006}} \right)}{T-1} = \alpha_0 + \alpha_1 \ln(RHDI_{2006}) \quad (3)$$

where the dependent variable is the logarithm of the change in the average annual HDI of the regions between 2006 and 2017, and the independent variable is the logarithm of the human development index for the initial year (2006). If  $\alpha_1 < 0$ , convergence can be detected in the data series.

## 2.2 Data

HDI is a composite indicator that includes three dimensions of human development: long and healthy life (HEALTH), education (EDU) and an acceptable standard of living (INCOME), and the composite index is the geometric mean of the normalized indices of these three dimensions. HDI has been established by the UN to determine and compare countries' levels of development, but our analysis focuses on NUTS2 regions, the territorial classification of the EU's cohesion and rural development policy, on which the level and scope of support is based. Time series HDI data are not available at a regional level therefore they need to be created.

To calculate the development index of NUTS 2 regions, I used the methodological description presented by Hardeman and Dijkstra in their 2014 study, however, due to incomplete or incompatible data sets, I had to deviate from their method at some point.

The authors compiled the human development index by incorporating six indicators:

1. Infant mortality (IM): the number of child deaths under the age of 1 per 1,000 live births per year.
2. Healthy life expectancy: an indicator that combines mortality and perceived health status; the number of years the individual is expected to have good perceived health.
3. NEET: the part of the population aged 18 to 24 that is not employed and does not participate in any education or training.
4. Higher education (TE): the proportion of people aged 25 to 64 with a tertiary education.
5. Net adjusted disposable household income: the net per capita household disposable income of a given region, weighted by the quotient of the country's gross and net adjusted per capita disposable income.

6. Employment (EMP): The proportion of employees over the age of 15 in the total population over the age of 15 (Hardeman & Dijkstra, 2014)

When applying the indicators defined by Hardeman and Dijkstra, I had to change two metrics due to the lack or incompleteness of the available data in my research:

1. Instead of life expectancy in health, I used life expectancy at birth (LE).
2. No weighting was derived when considering the disposable income of households (NDI).

To filter out the different units and magnitudes of the indicators, we transform the data using the following formulas:

$$x_t = \frac{x_i - \text{Min}(x_n)}{\text{Max}(x_n) - \text{Min}(x_n)} \quad (4)$$

and

$$x_t = \frac{x_i - \text{Max}(x_n)}{\text{Min}(x_n) - \text{Max}(x_n)} \quad (5)$$

where:

$x_t$ : the transformed value of the given variable in a given region, each year,

$x_i$ : the initial value of the given variable in a given region, each year,

$\text{Min}(x_n)$ : the minimum value of the variable for all the years and all the regions, and

$\text{Max}(x_n)$ : the maximum value of the variable for all the years and all the regions.

Formula (4) is applicable to indicators that have a positive effect on human development, that is, the value of the human development index also increases as regards life expectancy at birth, the proportion of people with tertiary education, the employment rate, and the increase in the net disposable income of households per capita.

Formula (5) refers to the transformation of the infant mortality and NEET indicators, as an increase in the value of these two indicators impairs human development. In both cases, the values of the transformed variables will be between 0 and 1.

After transforming the data, the value of each dimension – HEALTH, EDU and INCOME – is determined by a simple arithmetic average:

$$HEALTH = \frac{IM_t + LE_t}{2} \quad (6)$$

$$EDU = \frac{TE_t + NEET_t}{2} \quad (7)$$

$$INCOME = \frac{EMP_t + NDI_t}{2} \quad (8)$$

The value of the regional HDI index (RHDI) can be defined as the geometric mean of the three dimensions:

$$RHDI = \sqrt[3]{HEALTH \times EDU \times INCOME} \quad (9)$$

(Hardeman & Dijkstra, 2014)<sup>1</sup>

The territorial classifications of NUTS 2 have changed several times: between 2003 and 2007 NUTS2003, between 2008 and 2011 NUTS2006, between 2012 and 2014 NUTS2010, between 2015 and 2017 NUTS2013, between 2018 and 2020 NUTS2016, after 2021 NUTS2021 is applicable. Due to regular changes, I narrowed down the time horizon of the analysis to the period between 2006 and 2017<sup>2</sup>, however, 33 regions were excluded from the examined sample partly due to incomplete data and partly due to changes in classifications. Ad hoc data gaps, accounting for 1.8% of all data, caused additional difficulties in data management and were imputed using a linear trend to avoid further data loss.

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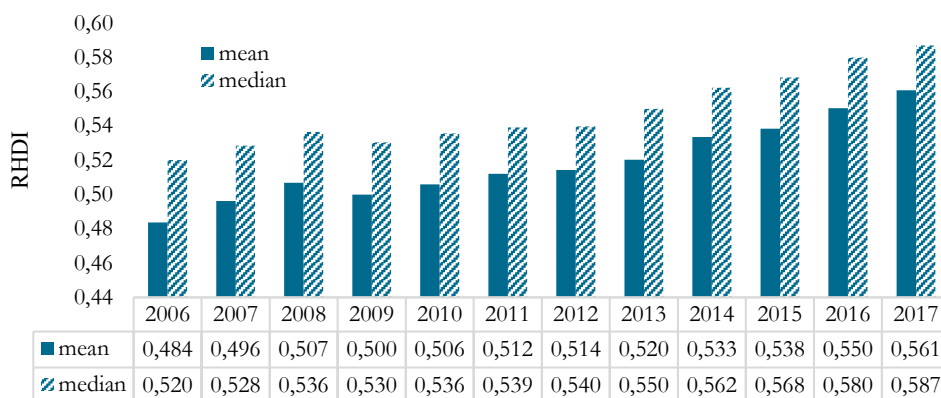
<sup>1</sup> Prior to transforming the variables, the authors smoothed out the variables considered volatile using a three-year moving average, which I omitted to do in order to avoid further data loss.

<sup>2</sup> The data included in the analysis could not be extended until 2018 since the respective data are still rather incomplete.



### 3 Results

The following figure shows the estimated HDI for the analyzed regions:



**Figure 1: Mean and median of the regional RHDI between 2006 and 2017**

Source: own calculation based on Eurostat data

Over the period under review, both the average and median human development indices increased overall. While the economic crisis caused a decline in HDI in 2009, the average value of the index had already exceeded the 2008 value by 2011. The figure illustrates that the median value followed a similar trend and consistently exceeded the average HDI, indicating that half of the EU regions are more developed than average.

As described at the beginning of the study, the existence of absolute beta convergence is examined using regression estimation where the independent variable is the initial logarithmic value of the regional HDI in 2006 and the dependent variable is the logarithm of the average change in HDI between 2006 and 2017. The results of the calculation are presented in the following figures:

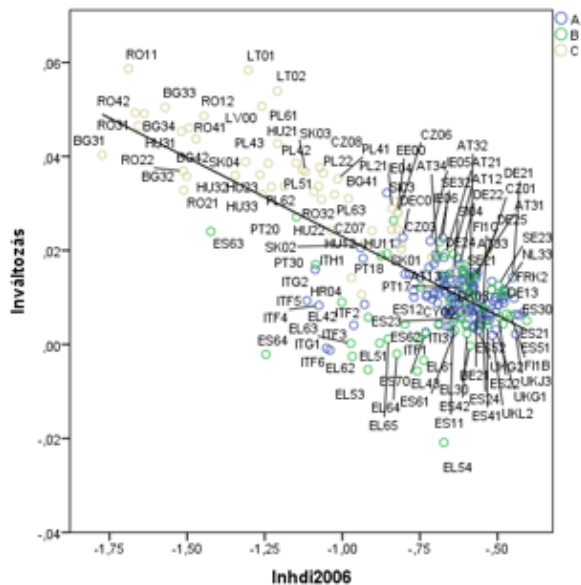


Figure 2: Beta convergence between 2006 and 2017 (a)  
Source: own calculation based on Eurostat data

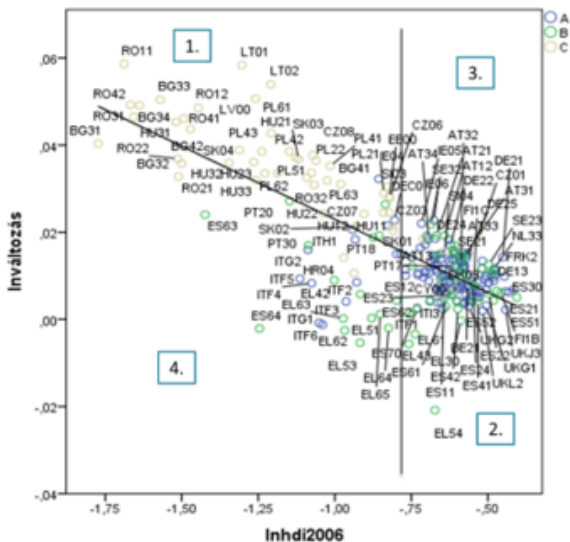


Figure 3: Beta convergence between 2006 and 2017 (b)  
Source: own calculation based on Eurostat data

In Figure 2, the coordinates for each region are marked in different colors: blue (A) indicates regions that belong to countries already members of the EU before 1981 (BENELUX, France, Italy, Germany, the United Kingdom, Denmark, and Ireland). Green (B) marks the regions that became part of the Union after 1981 but before the major enlargement (regions of Greece, Spain, Portugal, Austria, Finland, and Sweden). Finally, the gray coordinates highlight the regions of countries that joined the EU in 2004 or later (Estonia, Latvia, Lithuania, the Czech Republic, Slovakia, Slovenia, Poland, Hungary, Cyprus, Romania, Bulgaria, and Croatia). It can be seen that the regions marked in green and blue had a predominantly higher level of development, whereas the regions of the countries that joined in 2004 or later are typically shown on the left side of the figure, i.e., their initial HDI was lower.

For a more nuanced picture, let us divide the graph showing the results of the regression estimation into four parts, along the regression line (regions above and below the line) and along the 2006 HDI average. Thus, the regions can be classified into four groups:

1. The first quarter includes regions whose HDI was relatively low in the initial year, but the average increase in HDI exceeds the value estimated by the regression. These regions are the ones that can catch up.
2. In the second quarter the regions that performed a low growth between 2006 and 2017 with a relatively high initial HDI can be found that are practically lagging behind their peers.

The first and second categories include the regions that strengthen the process of equalization: less developed regions with high growth potentials and regions already with a high level of development but demonstrating slow growth.

3. The third category includes countries with relatively high incomes that have shown higher growth compared to the regression estimate (developing regions).
4. Finally, in the fourth quarter, there are regions that have achieved a small average growth with a low level of initial development (these are regions that are expected to be marginalized).

The third and fourth groups include the regions that work against convergence: regions that are already lagging behind and have low growth potentials, and those that are more developed and capable of further development.

For the sake of transparency, it is worth grouping the regions according to the above categories. The results are shown in the following table:

**Table 1: Groups of regions based on deviation from regression estimate and initial mean**

Convergence		Divergence	
Catching up	Lagging	Catching up	Lagging
Belgium, 1 region	Belgium, 3 regions	Austria, 8 regions	Belgium, 3 regions
Bulgaria, 4 regions	Cyprus	Belgium, 4 regions	Bulgaria, 2 regions
The Czech Republic, 7 regions	Germany, 2 regions	The Czech Republic, 1 region	Germany, 1 region
Germany, 1 region	Denmark, 4 regions	Germany, 30 regions	Greece, 11 regions
Estonia	Greece, 2 regions	Dania, 1 region	Spain, 4 regions
Hungary	Spain, 12 regions	Spain, 3 regions	France, 2 regions
Ireland, 1 region	Finland, 1 region	Finland, 3 regions	Croatia
Latvia	France, 13 regions	France, 6 regions	Italy, 9 regions
Lithuania	Italy, 10 regions	Ireland, 2 regions	Portugal, 3 regions
Poland, 10 regions	The Netherlands, 2 regions	Italy, 1 region	Romania, 2 regions
Portugal, 3 regions	The United Kingdom, 21 regions	Luxemburg	The United Kingdom, 1 region
Romania, 6 regions		Netherlands, 9 regions	
Slovenia, 1 region		Portugal, 1 region	
Slovakia, 3 regions		Sweden	
		Slovenia, 1 region	
		Slovakia, 1 region	
		The United Kingdom, 8 regions	

Source: own calculation based on Eurostat data

The table shows that all the regions of Hungary, the Czech Republic and Slovakia, the vast majority of the regions of Slovenia, and all the regions of Poland and the three Baltic States belong to the catching-up category. Two-thirds of Bulgaria's regions and three-quarters of Romania's regions are also catching up. Based on the Human Development Index this confirms that catching up is not impossible in the long run. Croatian regions are an exception, with both of them lagging behind.

Belgium is another interesting item in the table with Belgian regions appearing in all the four categories, which raises further questions about inequalities within the country. In the case of Italy we see that, except for one region, its regions are in the categories of those lagging behind, while in Spain a similar composition prevails. A large proportion of the UK regions are also lagging behind, with only a quarter of them qualifying for the 'developing' group, and the French regions are only in a marginally better position than the UK ones. Most of the regions of Germany and the Netherlands, and all the regions of Austria and Sweden comprise an already highly developed and relatively fast-growing category.

#### **4 Conclusion**

In this study, I examined the process of equalization within the European Union between 2006 and 2017 with the help of a regional – NUTS 2 level – human development index. To determine the regional HDI, I used the methodology proposed by Hardeman and Dijkstra, and the theory of beta convergence of Barro and Sala-i Martin was applied to examine equalization. The findings confirm convergence between the regions of the Union in the examined time interval: the less developed regions demonstrated faster HDI growths than the more developed ones did. However, by deepening the analysis, we were also able to gain insights into the risks some regions are faced with of permanently lagging behind and eventually getting marginalized, while there are regions that despite their initial level of development demonstrate above-average growth rates. Although the main trend is convergence, we can also see signs of divergence.

The outbreak of the Sars-Cov-2 virus in 2020 and the resulting economic and social losses are likely to reshape the current convergence situation, therefore the question remains for the future whether COVID-19 will strengthen either divergent or convergent processes.

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# HOUSEHOLD SAVINGS IN THE REPUBLIC OF NORTH MACEDONIA - SEVEN YEARS LATER

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**Abstract** It has been scientifically proven that the process of financial market development involves strengthening of the financial system preceded by simple capital accumulation which in turn is closely related to the savings rate. The higher the level of financial development, the greater the financial intermediation and the economic growth. Financial development reduces inequality and poverty by super-proportionately accelerating the growth of emerging countries and implying a reduction of inequality in the world. This paper expands the time frame of the analysis in the research conducted in 2012 of a statistical sample of 1250 respondents. Based on new data seven years later and using the previously defined variables on the same size of the statistical sample, this study aims not only to confirm the basic thesis that in the Republic of North Macedonia savings (as the main source of financing domestic banks) are still at a low level, and that the examined variables which are directly proportional to savings generally have a downward trend but it also aims to emphasize the strong impact on (mis)trust in financial institutions, related to savings. Hence, this paper will note proposed measures to increase the level of savings.

**Keywords:**

financial development, economic growth, poverty, saving, ethical standards

## 1 Introduction

There are numerous theoretical and empirical studies proving that only a well-functioning and stable financial system can be a pillar of economic growth and ensure a reduction in poverty and inequality in the world. The effective financial system responds to the demands of the non-financial sector at the same time encouraging economic growth. Financial institutions, such as financial intermediaries, mobilize and allocate savings in the real sector, enable the reduction of information and transaction costs, explore and rank potential investment projects according to their profitability, carry out corporate control, manage risk, mobilize savings, and facilitate exchange. Costs of financial underdevelopment and instability in terms of economic growth are high. Underdevelopment and instability lead to a high average rate of insufficient utilization of production capacities, which then reduces the productivity of capital. On the other hand, the uncertainty associated with the variability of the growth rates has negative effects on the accumulation of capital (Loayza et al., 2003). In 2000, the renowned economists *Levine, Loayza* and *Beck* examined the measures that are indicators of financial intermediation. The findings of the research carried out in 74 countries between 1960 and 1995, comparing average data for each five-year interval, show that countries with a private credit measure of less than 10% of GDP (Zaire, Sierra Leone, Ghana, Haiti and Syria) have lower i.e. negative rates of -0.5% of GDP growth, relative to countries where this measure is above 85% of GDP (Switzerland, Japan, the United States, Sweden, the Netherlands) and the GDP growth is over 5% per annum within the entire observed 35-year period. In the first group of countries with low private credit, the banking system was damaged as a result of state ownership of banks, state interventions on asset allocation policies, high level of delinquent loans, interest rate controls, numerous restrictions in banking strategies, etc. Within the same research, it was established that the value of the private credit measure in India in the period 1960-1995 was 19.5% of GDP and in Argentina 16% of GDP, while this value in the developed countries was 25%. The results show that the convergence of the private credit measure to that of the developed countries would provide India with faster GDP growth of over 0.6%, while in Argentina it would increase by 1.8%. It has been established that if Mexico with a return on equity of 36% would achieve a return at the average rate of OECD countries (68%), the growth rate would have been higher by 0.6% per annum. Similarly, if the bank loan indicator would have been, instead of the actual 16%, at the level of OECD countries of 71%, then the growth would



have been faster by 2.6% per annum. In 2004, *Rioja* and *Valev* noted that finances accelerate growth in rich countries primarily by increasing productivity growth, and in poorer countries by increasing the accumulation of capital. *Benhabib* and *Spiegel* in 2002 found that the indicators of financial intermediation are correlated with the total factor productivity, while the accumulation of capital is correlated with both physical and human capital. *Loayza* and *Ranciere* in a 2006 study examine the link between finance and economic activity and summarize that the dominance of short-term bank lending is a signal of economic stagnation and economic crises. *Rousseau* and *Wachtel* in 1998 investigated the connection between financial innovation and financial depth in the US economy for the period from 1872 to 1929. This research confirms that the permanent reduction in the expansion of the banks by 1% is associated with an increase in the financial depth from 1.7% to almost 4% and that financial innovations increase the financial depth, which is closely related to economic growth. Similar to this, *Levine* and *Zervos* and *Bekaert*, *Harvey* and *Lundblad* show that financial liberalization accelerates economic growth by improving resource allocation and investment rates. *Haber* concludes that international differences in financial development have a significant impact on the extent of industrial expansion in the countries, noting that underdeveloped financial systems, which limit access to institutional sources of capital, hinder industrial expansion. *Rajan* and *Zingales* summarize that better developed financial intermediaries and financial markets facilitate the access to external financing of companies, which is cheaper than internal financing (equity financing: shares and/or reinvested earnings) and with that supports the growth of companies as well as the economic growth. This research examined 36 industries across 42 countries in the United States. It has been concluded that the increase in financial development super-proportionally increases the growth of industries which find it more difficult to use external financing, and that financial development generates industrial growth through the expansion of existing and/or introducing new industries to the economy. Based on this research, *Beck* has linked finance and growth of small companies and found that industries inherently nurturing smaller companies grow faster in countries with a better-developed financial system. This is explained by the fact that small companies face larger information and financial issues as compared to large companies. It is therefore essential to have a developed financial system to ensure the support to the growth of these companies, It has also been found that the percentage of population living with less than two dollars a day decreases faster in countries with a higher level

of financial development, and that financial development super-proportionately accelerates the growth of poor countries thus reducing inequality in the world.

All above-mentioned research proves that the overall financial development and complementarity of the banking and non-banking financial institutions explain the successful growth in many countries, and that the development and proper and efficient functioning of financial institutions depends on: the legal framework and the regulatory mechanisms, the protection of property rights, the ethical standards of the financial institutions and the promotion thereof among economic agents, consistent and swift implementation of the agreements, protection of investor rights, the existing cultural specifics, comprehensive and internationally comparable accounting standards, transparency of economic agents, the macroeconomic agenda, political stability, etc.

## **2 Focus on Macroeconomic Condition in the Republic of North Macedonia**

After the independence in 1991, the Republic of Macedonia began to lay the foundations of a market economy. Alongside the process of ownership transformation in the real sector, the new legal infrastructure and regulations were developed, the foundations of the Macedonian Stock Exchange were laid, remediation of the banking sector was conducted (the cost of remediation of the banking sector reached 42.3% of GDP at the end of 1995 and 45.8% at the end of 1999, which makes it one of the most expensive recovery processes in the world). This was due to the fact that the banks were granting credit allocations without previous loan analyses, outside market and economic principles, often with insider participation in the decision-making process for loan approval by the borrowers themselves. As a consequence, a high percentage of uncollectible and delinquent loans were accumulated in the assets of the banks, which in turn attracted unrealistically high-interest margins on the passive and active interest rates. The total assets of the financial system account for 89.8% of the gross domestic product. The financial sector retained this relatively simple structure with the dominant role of the banking system and a fairly small role of non-deposit financial institutions. In 2009, the banking system participated with 88.7% in the total assets of the financial system, in 2012 with 88.5% and in 2017 this share was 83% (NBRM, 2010,2018), which confirms that the banks remain the dominant and most important institutional segment in maintaining the stability of the entire financial system. Although with a

significantly lower share compared to the banking sector, the next most important financial institutions are the insurance companies and the mandatory pension funds, as the second largest contributor in the financial sector with an equal share. In 2017, household deposits with 50.8% share in the total banking assets remain the primary source of banking assets with a high share in national savings. Deposits of non-deposit financial institutions with the banks at the end of 2017 accounted for 3.2% of the total deposits and 4.3% of the total assets of the banking sector.

### **3 Methods**

For the purposes of this paper, 7 years after the original research in 2012, the null hypotheses is again that the household savings rate (as the main source of credit potential of the dominant banks) is still at a low level; furthermore, insufficient information about the existence and adherence to the ethical standards of financial institutions continues to have a significant impact on mistrust thereof, and affects the savings rate. Hence, one of the hypotheses is that raising awareness of and informing economic agents about the adopted ethical standards of financial institutions will lead to an increase in the level of savings. Also, one of the aims of the research is to statistically define the trends of the examined variables in the seven-year timeframe and provide an assessment of thereof.

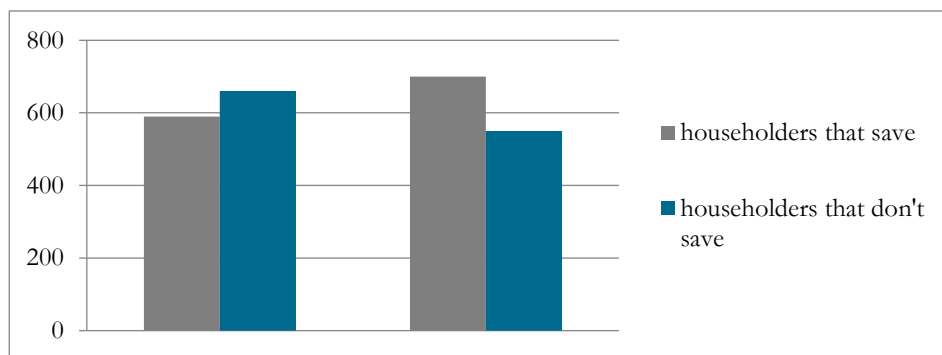
In order to prove that savings, as well as the knowledge about the ethics in savings in Macedonia are at a low level, a research was conducted on a random statistical sample of 1250 respondents (*Mojsoska, Dujovski, Nikolovska Vratevska, 2016*). The researchers proved the set hypothesis that the savings rate within the population of the Republic of Macedonia (as a dominant source of the activities of the domestic financial institutions) is at an insufficiently low level, as is the knowledge of ethical saving. Hence, the influence of financial institutions implies a low level of economic growth and development. The questions were elaborated in the Statistical program SPSS 19 and 7 variables were defined. The data from this research were elaborated by the basic descriptive statistical procedures. In the descriptive statistics for each of the variables, the basic measures of central tendency and dispersion were estimated, and the results were grouped in classes (frequency analysis). Analysing the data where the basic statistical parameters of 7 variables were given, we can state that the distribution of the results in most variables is mostly within the normal margins of distribution. Certain decline from the normal distribution is observed in variables 6

and 7, due to the content of the 5th variable - it is not in favour of saving, as well as to the 7 modules of responding within the variable 6. The estimated measures of variability (*Std. Dev.*, *Skewness*, *Kurtosis* and *KV*) with only a few exceptions show a relatively high degree of homogeneity in relation to the average values in each variable.

In order to examine the set hypotheses from today's perspective and to determine and evaluate the trends of the set variables within the timeframe of seven years, the questionnaire was re-distributed to 1250 randomly selected respondents.

#### 4 Results and discussion

Statistical data processing in relation to the first variable in 2012 gave the following results: the percentage of saving households was 47% while those who did not have savings amounted to 52%; in 2019 these percentages indicated 56% of savers and 44% of non-savers. In 2019, there was a trend of growth in the number of households saving by 8,8% and decline of non-saving households.



**Figure 1: Comparison of saving and non-saving households 2012-2019** The results indicate that the number of saving households in the first group grew by 12% while in the second and third groups it had grown by 20%.

Analysing the results obtained from the first two variables, it has been found that there is a trend of increase in the number of saving households and with that, a trend of growth in the amount of household savings. In an environment of low and declining interest rates on time deposits, the assessment is that during the analysed

time interval in the national economy, this was affected by the continued political instability (rational expectations of economic agents whereby consumption is postponed till future times and saving is preferred), as well as the growth of 14.3% of the average salary in March 2019 compared to March 2012 as noted by the State Statistical Office.. The results obtained from households that do not have any savings at all and the saving households - how much of their income goes to savings - unequivocally indicate that household savings (as the primary source of bank assets) are still insufficient to provide the required accumulation of capital for a financial system in function of growth and development of the economy.

In addition to this auxiliary hypothesis, the following groupings of homogeneous modules also go into the following groups: 1) the number of respondents from the module two of the third variable (the number of households that the savings do not invest in the financial institution) with the module two of the fourth variable of households who would not have invested in a financial institution if they had any savings); 2) and the second group of respondents from the module one of the third variable (saving and investing in the institutions) with the respondents from the module one of the fourth variable (which if they would save, they would invest in a financial instrument). An overview of the results obtained is given in Table 2:

**Table 1: Reasons for not investing in financial institutions, comparative 2012-2019**

**2012 Crosstabulation**

Count

		1	2	3	4	5	Total
2012	Yes	90	10	10	80	10	200
	No	80	10	10	90	20	210
Total		170	20	20	170	30	410

**2019 Crosstabulation**

Count

	1	2	3	4	5	Total
Yes	100	20	20	100	10	250
No	20	30	30	100	40	400
Total	30	50	50	200	50	650

Legend: 1- constant need for cash.

2-no existence of financial instruments for household needs.

3-insufficient knowledge of the ways and conditions for investing as well as the benefits and risks.

4-distrust in financial institutions.

5-other, specified:investments in own business.

- „Yes” – Housholders that save

- „No” – Householders that do not save

The results confirm the sub-hypothesis that after 7 years, we have an even higher number of respondents who do not nor would invest in a financial institution, which further weakens the deposit base collected from the invested insufficient mass of household savings as a potential in the economy for credit rating in the real sector.

The purpose of the fifth question was to determine the reasoning behind the decision not to invest the savings in a financial institution. In the analysis of 2012, the percentage of respondents who do not nor would invest in a financial institution was as follows: 38.1% said that they would not invest due the constant need of household cash reserves (liquid assets), 7.1% noted the lack of financial instruments in which they would invest to meet the requirements of their household, 4.6% had insufficient knowledge of the manner and conditions for investing in the financial institutions, as well as the lack of knowledge of the ethical standards of the institutions, , a dominant 40.5% of the respondents noted as a reason the mistrust in the financial institutions, and 9.5% chose Other: specifying that they would invest in starting their own business. The research into this variable in 2019 showed the following: 45% do not nor would invest their savings due to the constant need for cash; 8% do not nor would invest due to the lack of financial instruments that would be appropriate to their needs; 8% stated as a reason their insufficient knowledge of the investment conditions of, benefits, risks and ethical standards of the financial institutions; 31% said that the reason was mistrust in financial institutions while 8%

specified that they would invest in their own business. Within this variable, and according to the principle of homogeneity of the content of the modules, the first and the fifth module were grouped together (a group comprising respondents who have a constant need for cash in the household or for investments, for example, in their own business), with the second, third and fourth modules being grouped together to encompass respondents who do not have sufficient knowledge on finances, instruments, and risks of investing, lack knowledge of the ethical standards of the institutions and do not trust them.

It has been concluded that in 2012, 50% of the respondents stated as a reason for not investing in financial institutions, the constant need of cash in the household and/or for the investments (in 2019, this share is 53.8%), while 50% said they lack information about investment conditions, ethical standards of institutions or lack of trust in the financial institutions (in 2019, this share was 46.2%). The results, presented, affirm the sub-hypothesis that insufficient knowledge of the manner and conditions for investing in financial instruments as well as the insufficient knowledge of households in the ethical standards of financial institutions result in mistrust thereof and in a low level of savings and investments in the financial instruments. The analysis indicates that the ethics is a strong factor of influence when deciding whether and how much will be saved, and if the savings will be invested in the financial market.

## **5 Conclusion**

The overall financial development and complementarity of banking and non-banking financial institutions help explain the successful growth of many countries. The existence of a well-functioning developed, and integrated financial system and financial institutions is reflected in the increase of competition, the quality and type of offered financial services and instruments, reduction of financial intermediation costs, which in turn encourages savings as a potential for further investment activity in the economy. The research confirmed the theses that in North Macedonia, seven years later, there are still insufficient savings, the savings are not fully invested in the financial institutions, and that the respondents are not suitably familiar with the opportunities and benefits of the investments in the financial market, or with the existence and adherence to the ethical standards of financial institutions, nor do they trust the financial institutions. All this creates an opportunity to educate and raise

awareness of a high percentage of economic entities on the conditions, benefits, risks and the interest rate of savings invested in financial instruments, as well as the adopted and applied regulations and ethical standards by the national financial institutions as measures aimed at enhancing both trust and savings. These promotional and educational activities would be accompanied by the development and implementation of strategies to ensure growth and development of the financial system within the macroeconomic and macro-financial policies: modernization of the financial system and the presence of a wide range of financial instruments in the domestic financial market, its international integration, accelerated development of non-banking financial institutions, consistent application of ethical standards and transparency, strengthening of the regulatory framework and efficient justice system.

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# INDIVIDUALS' RESPONSE TO COVID-19 RESTRICTIONS IN EUROPE: A SNAPSHOT OF TODAY AND HOPES FOR TOMORROW

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**Abstract** This study presents the individuals' responses to the COVID-19 pandemic. Considering that many institutions and working places were closed due to the pandemic, the possible impact of COVID-19 restrictions on individuals was assessed. The study examined the number and frequencies of respondents in the survey including demographic variables (gender, income), and future expectation on economic situation and psychological conditions. There were 218 individuals from 24 European countries participating in the survey. The percentage of respondents, discovering personal strength (previously unaware of) during restrictions was 40%. This is a high percentage showing that isolation may contribute to self-discovery. Despite annoying restrictions, many individuals expressed their economic optimism for the future. Also, most of the participants stated that they had not enough money during these restrictions. Also, this study shows that trust in governments, the European Union (EU) and the World Health Organization (WHO) was low during the pandemic restrictions. The results of this study might be useful and taken into account for potential future waves of this pandemic and possible new pandemics that may occur in the future.

**Keywords:**  
coronavirus,  
COVID-19,  
restrictions,  
pandemic,  
european  
individuals

## 1 Introduction

In January 2020 the World Health Organization (WHO) announced the outbreak of a new Coronavirus disease (COVID-19). In March 2020, WHO assessed that COVID-19 can be characterized as a pandemic [WHO(1), 2021]. After the announcement of the pandemic, countries started to take strong measures, in particular from March 2020. Here are the facts about COVID-19 as of the end of March 2021: There have been 123,902,242 confirmed cases of COVID-19, including 2.7272.838 deaths in the world. There have been 43,171,541 total confirmed cases in European region including 940.513 deaths [WHO(2), 2021].

Having essential information about the effect of COVID-19 pandemic on individuals' social and psychological conditions is considerably important for protecting them from the challenges of the pandemic restrictions (Yang and Ma, 2020). In particular, the individuals' being faced with less socialization than before may have some health problems. Identifying these difficulties and determining the possible negative effects of the pandemic restrictions can be effective in reducing the negative consequences of the pandemic.

The COVID-19 pandemic has caused social isolation that has some negative effects on individuals. WHO (2020) has given some messages to people in isolation about staying connected and maintaining social networks. These messages indicate the importance of social participation through social integration because the social participation of individuals in their communities is vital for the development of both themselves and society (Cicognani, Pirini, Keyes C., Joshanloo, Rostamiand Nosratabadi, 2008). Sense of community is also very important for especially young people because active participation in school communities is essential for building social identity (Capone, Donizzetti and Petrillo, 2018). Besides, the school environment is important for young individuals' overall well-being. School environment and learning quality are essential factors influencing students' positive psychological condition (Gashi and Mojsoska-Blazevski, 2016). Wang, Pan, Wan, Tan, Xu, Ho C.S. and Ho R.C. (2020) conducted a study during the epidemic of COVID-19 in China and found an association between female, student status and specific physical symptoms, and the greater psychological influence of the outbreak and higher levels of stress, anxiety, and depression. González-Sanguino, Ausín, Castellanos, Saiz, López-Gómez, Ugidos and Muñoz (2020) investigated the

psychological impact of COVID-19 on Spanish people and found that women showed greater depressive symptoms than men.

Pandemics increase morbidity and mortality over a wide geographic area and cause significant economic, social, and political problems. Pandemics have occurred throughout history and appear to be increasing in frequency, particularly because of the increasing emergence of viral disease from animals (Madhav, Oppenheim, Gallivan, Mulembakani, Rubin and Wolfe, 2017). This study aims to explore the individuals' responses to COVID-19 pandemic restrictions in Europe. Understanding the individuals' responses to the COVID-19 pandemic can contribute to the literature in terms of initiating more specific studies on the pandemic. Besides, It can also be useful in developing new measures against future pandemics.

The study consists of four sections. The second section of this research has short explanation of including collecting data, variables and the analyses of the data. Third section includes results of the study. Conclusions is the last section including findings of the research and suggestions for this study.

## 2 Methodology

This study is based on an online survey questionnaire. It was conducted in European countries. The questionnaire was designed in a simple style and was made to reflect that the COVID-19 pandemic conditions may have caused a negative situation in individuals' life. It was used the Google online hosting platform to gather data. University students are target group of this study. The age of the participants of this research was between 18-25 years old. The collect data, the survey questionnaire was disseminated in social media such as Facebook, LinkedIn, and Twitter. It was tried to reach as many participants as possible. SPSS statistical programme was used to analyze data. The online survey conducted between January and February 2021.

### 3 Results

Totally 218 participants from 24 European countries were included in this study. There was only one participant from Croatia, and 2 participants from North Macedonia. There were more than 10 participants from Czechia, Germany, Hungary, Moldova, Poland, Romania, Russian Federation, and Spain and. Most of the participants were from Ukraine with 8.6% comparing with the other countries.

**Table 1: Participants from European Countries**

Participant's country	Frequency	Percentage
Austria	7	3.21
Belgium	4	1.83
Bulgaria	13	5.96
Croatia	1	0.46
Czechia	11	5.05
France	8	3.67
Germany	10	4.59
Greece	8	3.67
Hungary	11	5.05
Italy	6	2.75
Kosova	4	1.83
Latvia	5	2.29
Moldova	12	5.50
Netherlands	8	3.67
North Macedonia	2	0.92
Poland	15	6.88
Portugal	9	4.13
Romania	16	7.34
The Russian Federation	16	7.34
Slovakia	4	1.83
Slovenia	6	2.75
Spain	15	6.88
Turkey	9	4.13
Ukraine	18	8.26
Total	218	100.00

Source: Prepared by the author.

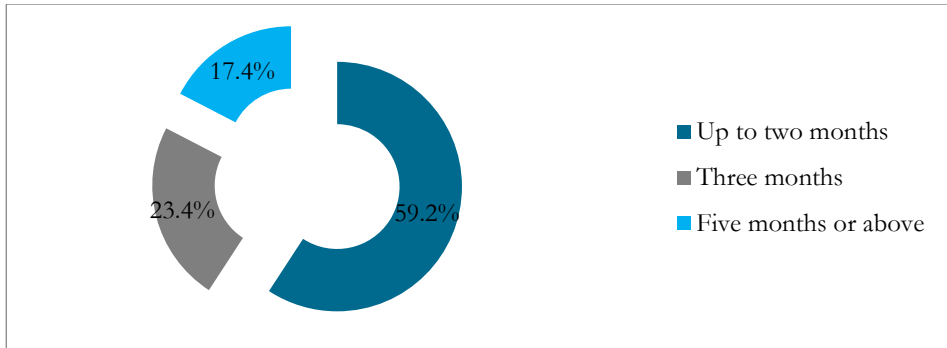
Most of the participants were female (62.8%). Percentage of the male participants was 32.7. It was asked 6 questions dealing with the personal condition during restrictions of the COVID-19 pandemic.

**Table 2: Descriptive Analyses**

Variables	Frequency	Percentage
Gender		
Male	81	37.2
Female	137	62.8
How many months do you have enough money if these restrictions remain in place for some time?		
Up to two months	129	59.2
Three months	51	23.4
Five months or above	38	17.4
Which of the following seems to give you more confidence in the present emergency situation?		
Government of my country	29	13.3
European Union	24	11.0
World Health Organization	13	6.0
I care more about having enough money than trusting those above	152	69.7
Do you think that you will be economically secure after this pandemic?		
Yes	139	63.8
No	79	36.2
Are you struggling emotionally during these restrictions?		
Yes	73	33.5
No	145	66.5
Even though face-to-face communication is less than before, do you feel happy?		
Yes	109	50
No	109	50
Do you think that you have discovered your personal strength you were previously unaware of?		
Yes	86	39.4
No	132	60.6
Do you think you can cope with the challenges of the pandemic?		
Yes	168	77.1
No	50	22.9

Source: prepared by the author.

**Question 1: How many months do you have enough money if these restrictions remain in place for some time?**

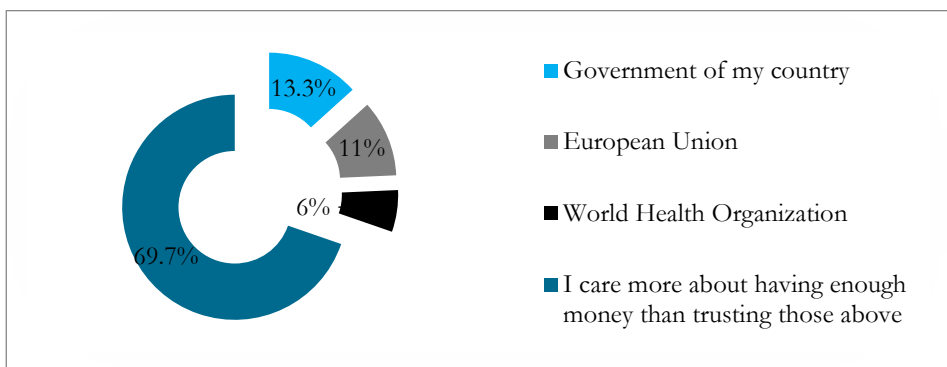


**Figure 1: Percentage of participants' personal income situation.**

Source: Prepared by the author.

It was first inspected the financial situation of the survey respondent by asking them "How many months do you have enough money if these restrictions remain in place for some time?" The results are presented in Figure 1. In particular, this question was asked to measure the level of the participants' savings for emergencies. The result shows that the savings level is not enough because only 17.7% of the participants have enough savings for 5 months or more. 59% of respondents responded that their savings would last for a maximum of two months.

**Question 2: Which of the following seems to give you more confidence in the present situation?**



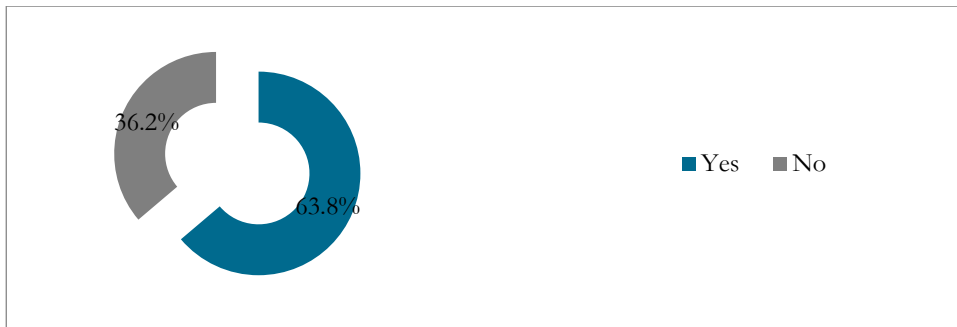
**Figure 2: Percentage of participants' trust in institutions.**

Source: Prepared by the author.

This question was asked in order to find out what is the most trusted thing for individuals during the restrictions of the pandemic. Trust in country governments was 13.3%, European Union 11% and World Health Organization 6%. Most of the participants stated that the most reliable thing in this process was the money owned.

It was first inspected the financial situation of the survey respondent

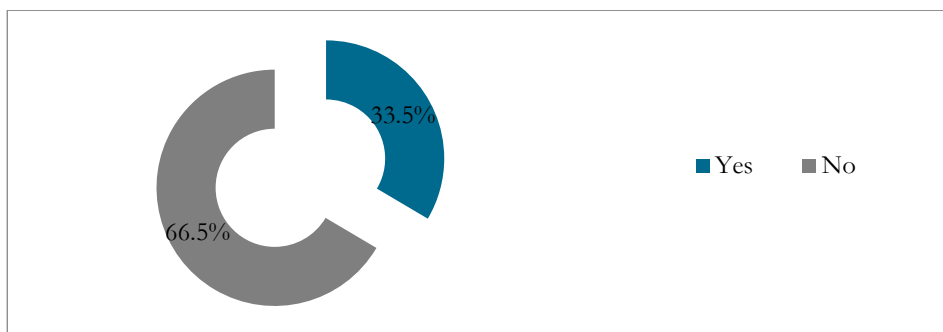
**Question 3: Do you think that you will be economically secure after this pandemic?**



**Figure 3: Percentage of participants' future expectation on personal finance.**

Source: Prepared by the author.

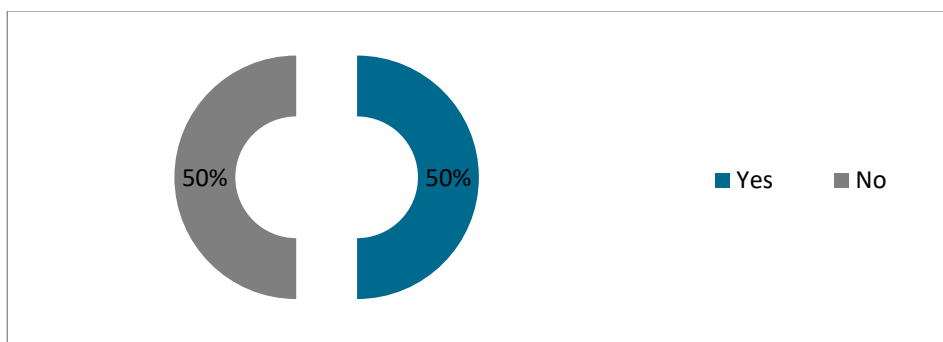
This question was asked to determine whether the current pandemic restrictions is causing a pessimism for the financial future. The results showed that 63.8% of the participants feel that they will be economically secure after the pandemic.

**Question 4: Are you struggling emotionally during these restrictions?**

**Figure 4: Percentage of participants' stress condition.**

Source: Prepared by the author.

This question was asked to measure the participants' perceived stress condition during the pandemic restrictions. 60% of the participants stated that they are struggling emotionally during restrictions.

**Question 5: Even though face-to-face communication is less than before, do you feel happy?**

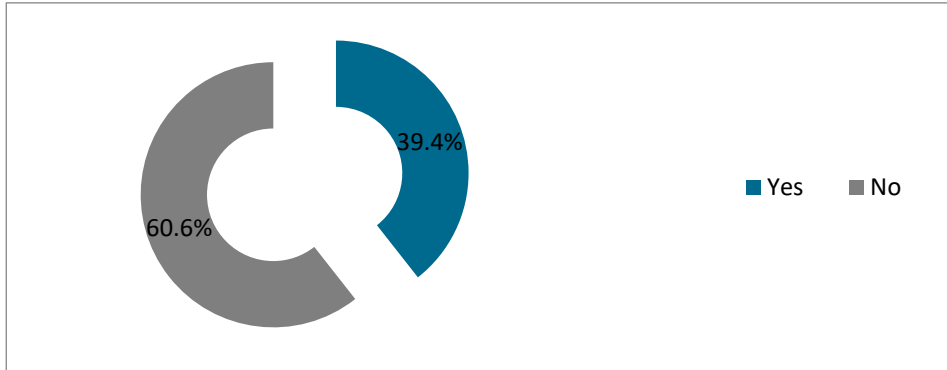
**Figure 5: Percentage of participants' feelings on less communication.**

Source: Prepared by the author.

This question was asked to determine the importance of face-to-face communication for the participants and the effect on their happiness. Only half of the students stated that they felt happy in this situation.



**Question 6: Do you think that you have discovered your personal strength you were previously unaware of?**

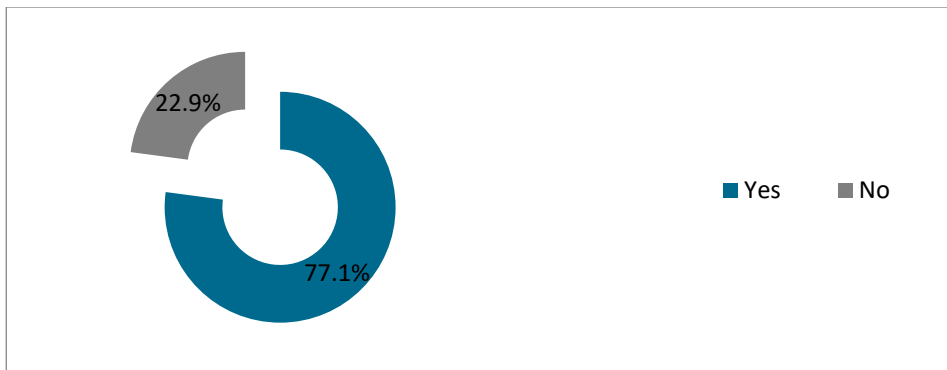


**Figure 6: Percentage of participants' perceived personal strength.**

Source: Prepared by the author.

This question was asked to measure whether individuals discovered their personal strengths as they were previously unaware of. 39.4 % of the participants stated that they discovered their individual strength.

**Question 7: Do you think you can cope with the challenges of the pandemic?**



**Figure 7: Percentage of participants' perceived ability to cope with challenges of the pandemic.**

Source: Prepared by the author.

This question was asked to explore the strength of the participants in fighting the pandemic. 77.1% of the participants stated that they can cope with the challenges of the pandemic.

#### **4 Conclusion**

Finding indicated very low confidence to governments, EU and WHO. Most of the students think that having enough money is more important than trusting in such institutions. Also result shows us that individuals don't have enough saving for unexpected situations, indicating low level of financial behavior.

Findings indicated that half of the participants during COVID-19 pandemic restrictions was happy in spite of less communication level. Pandemic social restrictions may negatively affect happiness. Lang and Stein (2005) found that youth had serious mental health problems during the initial days of COVID-19 pandemic.

Respondents had the highest positive response to the item dealing with coping with the challenges of the pandemic (77.1%). Acute stress may lead an individual to be overconfident in their situation awareness understanding (Price, Tenan, Head, Maslin and LaFiandra, 2016). This percentage is rather high for such a stressful condition caused the COVID-19 pandemic. Therefore, it may show overconfidence caused by stressful situations during pandemic social restrictions. On the other hand, this stress and overconfidence may cause low grades for the students. Academic stress at the start of the year is inversely related to end of year grades (Wang et al, 2020).

The result also showed that individuals have positive economic expectations on their future financial situations. Positive expectations for future economic life is a very important hope for future. The percentage of discovering personal strengths (previously unaware of) during COVID-19 social restrictions were found to be 39.4%, indicating very positive behavior. Discovering personal strength in emergencies can lead to beneficial results for individuals' life.

The Coronavirus pandemic has revealed that governments and other institutions should take more responsibility in healthcare systems and economic affairs. This results might use to enhance better healthcare and economic life.

Although this study has some useful results, it cannot be generalized to all individuals in Europe. The results should be supported by new studies in the future.

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# ANALYSIS OF DEVELOPMENT FACTORS OF NON- GOVERNMENTAL ORGANIZATIONS WITH PARTICULAR EMPHASIS ON PUBLIC FUNDS AND THE PROCESS OF EUROPEAN INTEGRATION

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**Abstract** In the last quarter of the century, there has been a steady increase in the number and scope of organizations operating under the so-called third sector. These organizations implement a wide range of activities, from social services to recreational activities, from political pressure groups to groups that promote art or history. Foundations and associations are an important arena of social, economic and political activity, alongside the state and the private sector, they feature an increasingly important role in today's world. European public funds provide a plentiful supply of financing for these activities. It has been shown that European funds change the statutory objectives of foundations and associations as public funds determine their operational priorities and directions of development. Active civil society supports the creative processes of social capital, and the most important function of NGOs is precise to strengthen social capital. Participation in NGOs is a determinant of civic maturity for citizens. On the other hand, due to the active participation of citizens in such organizations, societies have changed. This is the reason why the direction of the third sector development and the phenomena of its growth is so crucial for every European State.

**Keywords:**

NGOs,  
third  
sector,  
public  
funds,  
EU  
funds,  
social  
capital



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## 1 Introduction

During the last a quarter of a century, there has been an increase in social activity in European countries. The overall number of all NGOs has increased. More and more Europeans are getting involved in civic organizations in the third sector. This is definitely a positive phenomenon as it improves the public and socio-economic life in a given society. NGOs operate within very different thematic areas. They work in many fields, from sports and culture, through education and history, to health protection and supporting the weakest and poorest individuals in society. Some of them are meaningful only to the local community, because the geographical scope of their activities does not exceed a specific city or region. There are also larger organizations, wealthy enough to function nationally, internationally, and even globally (Milbourne L., Cushman M., 2013). The third sector is developing intensively. Its origins are considered to be the church's charitable activities in the Middle Ages. Then, in the modern period, from the eighteenth century until the end of World War II, philanthropy and patronage were in vogue in the upper echelons of the society. The activities of the social elite of that time in the field of caring for the weak, supporting the poor and financing the education of young talents were an important step in terms of broadly activating the unexpressed potential of the society. The second half of the twentieth century brought a decisive and rapid development of non-governmental organizations, which began in Western Europe and spread to the entire old continent. The dynamics of the increase in civic activity progressed along with the tightening of relations between nations and the progress of European integration (Bar J., 2010).

European integration definitely facilitates the development of the non-governmental sector of the countries of the old continent. One of the most important benefits is the possibility of transnational cooperation of non-governmental organizations to act unhindered by administrative difficulties. Civic institutions associate into international federations, exchange experiences and implement joint projects, thanks to which they and the entire society benefit. European funds as a pool of public aid funds available to the third sector is of great importance for its activity. Non-governmental organizations in European countries largely use public aid (local governments, national governments and international organizations, such as the European Union) (Brodziński, Bórawski, Dunn, 2017). The vast majority of EU assistance programs are structured in such a way to strengthen international

cooperation in the third sector. Regulations of EU support programs require beneficiaries to form consortia that involves civic organizations from different countries. As a consequence, societies learn about transnational cooperation, moreover a sense of European identity grows in societies. Public resources, including European funds, are not fully adapted to the real needs of the third sector. Non-governmental organizations must choose between pursuing statutory goals and reformulating these goals so that they correspond to the requirements of available support programs. Of course, there are programs that finance activities in line with the statutory objectives of individual organizations, but most organizations change the profile of their activities in order to be able to obtain more funds.

In this way, public donors set the directions for the development of civic entities (Wojcieszka L., 2015). Civic activity undertaken as part of the functioning of citizens in the third sector is currently an important stimulator of social and economic development. The true social activity is a manifestation of creating an active civil society. Through their activity, civic institutions develop social capital, which is indispensable for maintaining healthy relations in society and ensuring its constant growth. One, of the indicators of the maturity of democracy and society is precisely the level of development of the civil society (Putnam R.D., 2001). The third sector, as a set of civic organizations, is a strong opinion-forming environment. Civic institutions involve a lot of people through their activities. The events they initiate often enjoy great social recognition. The ideology promoted by non-governmental organizations often attracts supporters among the recipients of the activities of a given organization. Due to such a large social impact, it is very important to understand the factors conditioning the development of non-governmental organizations (Fukuyama F., 1999).

## **2 Literature review and research**

In this article, I present the results of research carried out by several scientists who prove the truth of the following hypotheses:

- the third sector in a democratic state plays a very important role in the socio-economic life. Contemporary researchers of civic organizations notice that social activity is increasing. The functioning of citizens in non-governmental organizations is becoming somewhat fashionable in the society and is constantly

increasing, thus the importance and influence of the entire third sector grows considerably every year;

- European integration and the strengthening of socio-economic ties between European countries have a positive effect on the development of civic organizations in the countries of the old continent. Public money directed to civic organizations is a very important stimulus for their development. Aid programs financed from public funds used by non-governmental organizations change the profile of their activities: civic institutions give up the original goals of the organization in order to achieve the goals of the donor from whom they obtain funding;
- the activity of non-governmental organizations is a manifestation of an active civil society and strengthens social capital. Civic institutions create the development of civic society. Through their activities, non-governmental organizations develop social capital, and thus influence public administration and the private sector.

## **2.1 Growth of the third sector**

Lester Salamon introduced the concept of "global association revolution" into the language of science in the early 1990s. He stated that third sector organizations constitute a very important arena of not only social activity, but also economic and political ones. Therefore, non-governmental organizations began to play an increasingly important role in today's world also in these areas (traditional for the state and the market) (Salamon L., 1994). Since the end of World War II, the importance and activity of the civil sector has been steadily increasing and has accelerated significantly over the last 25 years. According to Jerzy Stepień, they contribute to the achievement of social goals. The activity of citizens in the third sector is a factor facilitating development both in the local and regional perspective, as well as national and more broadly - European. Civic institutions are very diverse among themselves. The differentiating factors include, in particular, apart from the geographical scope of the activity, the thematic area, number of members, legal form, duration of the organization's existence, statutory objectives, method of undertaking and sources of financing. The diversity of NGOs strengthens the power and influence of the third sector as a whole. Civic organizations specialize in many



areas, thanks to which they can speak out on a large number of important issues to the society (Stępień J., 2017).

## **2.2 The importance of European integration and public funds**

According to research conducted by Mirosława Janoś-Kresło, non-governmental organizations use various support programs financed by public money. In the 2007-2013 financial perspective, the largest amount (over 64% of all EU funds) of financial resources was received by non-governmental organizations from the "Human Capital Operational Program". Other important sources of financing the activities of NGOs were also "Bi, innovation and entrepreneurship" (over 16% of all EU funds), as well as "Tourism and culture" (slightly less than 10% of all EU funds). The remaining programs accounted for less than 20% of the value of the entire European pool (Janoś-Kresło M., 2013). Moreover, Janoś-Kresło checked the knowledge of non-governmental organizations about the possibility of applying for support under European funds. According to her research, only 63% of the largest civic institutions had the correct knowledge about the possibility of obtaining funds and the quality of their knowledge was assessed as "sufficient level". However, among the smallest organizations, the teen rate was below 20%. This shows a significant disproportion of knowledge between large and small organizations and threatens to dominate the pool of public funds by large, strong NGOs preventing small organizations from using these funds. Similar disproportions occur in the thematic area of activity. Non-governmental organizations, which deal mainly with local development, have much more knowledge about the possibilities and rules of obtaining financial support rather than sports organizations which possess the lowest level of knowledge. It is not relevant that the researcher indicated that the use of EU funds noticeably improves and increases the professionalization of the organization and the quality of its activities. Excluding smaller entities from access to this pool may lead to their marginalization. As part of the research, Janoś-Kresło put forward the thesis that an NGO switching to the designed activity of a donor, may change not only the style of its operation, but also its goals: according to the scheme: we conduct business if we manage to obtain funds, and we also conduct such activities for which we will obtain financing. Previously, the organizations tried to obtain funding for statutory activities, rather than raising funds for any activity (Janoś-Kresło M., 2015). As part of our original research, we explored the

phenomenon of the impact of public funds (not only EU funds, but also national, local and Norwegian) funds on organizations belonging to the third sector.

### **2.2.1 Research**

In our research, we checked the compliance of the priorities of individual aid programs addressed to NGOs. We conducted the survey in 2021 using an online survey, distributed in a multi-level manner. The research was conducted on a sample of 58 non-governmental organizations. Both young (under 3 years of operation) and more experienced (over 9 years of operation) organizations participated in the study. Most of the surveyed organizations have been operating for 3 to 6 years. The surveyed organizations have very different budgets. Over 40% of them declared the average annual budget in the last 3 years as less than PLN 100,000 (this is the equivalent of less than EUR 23,000). The organization with the highest budget among the respondents operated with an average annual budget of over PLN 1,000,000 during the last three years (this is the equivalent of over EUR 230,000). The organizations surveyed came from both villages and small agglomerations of up to 100,000 inhabitants (36% of all) and metropolises with more than 500,000 inhabitants (34% of all). These organizations operate within a local government unit (50% of all respondents), several regions or the whole country (33% of all respondents) and on an international scale (17% of all respondents). The questions in the survey concerned whether and to what extent the surveyed organization uses public funds and what part of its revenues are obtained from public subsidies. The organizations participating in the study were asked to estimate the level of difficulty in obtaining funds, as well as to determine how important public funds are for the development of their organization and the entire third sector. The surveyed organizations were also asked to determine the level of significance for the development of the third sector of certain pools of public funds (local government, government, EU, Norwegian) and to determine how the statutory objectives of the surveyed non-governmental organization are consistent with the objectives of the aid program financed from a given pool of public funds.

The results of our research agree with the indications of Mirosława Janoś-Kresło and deepen them. Each of the organizations surveyed declared their interest in using public funds. Almost 95% of them declared that subsidies from public funds are important or very important for the development of the civic sector. On average,

for the entire sector, non-governmental organizations indicated 52% of programs as inconsistent with their actual goals, but nevertheless applied or intend to apply for these programs. In detail we had the following results: 67% of the surveyed organizations indicated that the support programs financed from Norwegian funds were not in line with their actual goals. In the case of local government programs this ratio was 57%. For European funds 53%, and for government funds 29%. These results show that non-governmental organizations are able to find aid programs supporting the activities they want to carry out (in the case of the pool of government funds it is as much as 71% of the total programs), but in most cases they have to adapt their activities to the donor's requirements. This is a worrying phenomenon as the income from subsidies is more than three-quarters of all average annual revenues among almost half of all surveyed organizations. Interpretation of financial data allows for the conclusion that the institutions managing grants for non-governmental organizations to a significant extent create their activities, and the importance of public funding for the third sector allows political decision-makers to set directions for the development of the civic sector.

### **2.3 The third sector in shaping social capital**

Social capital is a very broad and multidimensional concept, one of its features is immeasurability. It is very difficult to value social capital, which is by its nature incalculable. However, according to Katarzyna Sierocińska, one of the basic features of social capital is trust. It could be stated that social capital consists in creating trust between the various individuals who form and shape the society. Building social capital is therefore based on activities aimed at strengthening social ties between individual citizens (Sierocińska K., 2011). Trust is a very important factor for the proper functioning of the state and society. The whole of socio-economic life is based precisely on trust. Non-governmental organizations through their activity bring citizens closer to each other by building trust. Strong social ties improve the functioning of public administration and enterprises. Honesty in business relations facilitates the conclusion of transactions and the development of entrepreneurship, while the certainty and consistency of the administration's activities facilitates the society's quick and trouble-free fulfillment of civic obligations (Oliveira E., 2017).

### 3 Conclusions

The third sector is an important element of the modern democratic system and the entire social economic life among European countries. The number of non-governmental organizations grows, as does the thematic scope and intensity of their activities. Civic institutions have an impact on society, the leaders of the third sector are in fact opinion leaders in local communities. These processes made it possible to increase the importance of the third sector in public life. Aid programs financed from public funds were particularly important for the development of civic organizations. These programs are not tailored to the real needs of the organization. The possibility of obtaining additional funds is sufficient motivation for most NGOs to change the actual goals of the organization.

By using subsidies, governments set the direction for the development of the third sector. The activity of citizens within the third sector is necessary to maintain proper social relations and achieve stable and long-term economic growth. Non-governmental organizations build social capital, which is of key importance for the proper functioning of public administration and business.

States should take care of the efficient functioning of the third sector, as civic organizations improve social processes crucial for state institutions and the private sector. While developing the criteria for co-financing programs targeted at civic entities, it is worth carrying out a wide research in order to find out the actual needs of civic organizations. Maintaining the actual pace of development and activity of the non-governmental sector in the coming years would be beneficial for the future of socio-economic affairs, especially when nations struggle with the effects of the pandemic.

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# AN EVALUATION ON THE THREATS CAUSED BY COVID-19 ON FOODS AND FOOD&BEVERAGE INDUSTRY

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**Abstract** The purpose of this study is to evaluate the relationship between Covid-19 and the food in the light of all information that has been obtained till now. In the light of information being obtained and other outbreaks being experienced, it has been stated that there was no risk of transmission of this virus through the food and farm animals but that there could be a risk of transmission from workers, surfaces, a through the food production equipment. As a result of the literature review, it has been understood that the virus that causes Covid-19 disease does not transmit through food but on surfaces in particular groups in order to survive within certain time limits. These evaluations have caused all attention to be directed to humans (workers) and the areas relating with production. Within context of information that has been obtained till today, the most important proposals are focused on people working areas. This situation prepares the ground for focusing the measures to be taken on these two groups. In addition, wild animal production has been announced to be one of the fundamental actors concerning the risk of transmission.

**Keywords:**  
COVID-19,  
food and  
beverage  
management,  
food and  
COVID-19,  
food  
contamination,  
pandemic  
disease

## 1 Introduction

Through the centuries, various epidemic diseases have caused for humans to experience different problems and while permanent solutions could be produced at certain times, sometimes the continuing new epidemics have revealed even bigger obstacles. The pandemic that is experienced today at global level (Covid-19) has affected many areas (economics, health psychology, sociology etc.) with the number of countries, spreading speed, and death incidents it has caused and it has turned into a phenomenon on which different and famous people and institutions have focused their researches in relation to their areas of specialization.

Number of studies relating with food and beverages sector or the relationship between food and beverages and Covid-19 are quite limited for the time being (Power *et al*, 2020; Miles, 2020; Desai & Aronoff, 2020; Jalava, 2020; Ghoch & Valerio, 2020; Wittwer, 2020; Gangopadhyaya & Waxman, 2020; Lu *et al*, 2020).

In the environment causing pandemic diseases, there are various actors being involved such as wild animal consumption and cross transmission. Eating and drinking action which is a fundamental requirement for humans to continue their lives, bears significant importance in this respect. As said requirements are met from food, investigation of this subject relating with pandemic diseases comes to the forefront. In the researches being conducted it attracts attention that in the cases where food relating with disease play a role, the transmission act mainly occurs by means of viruses with a significant rate (67%) (Mead *et al*, 1999:610; Yépiz-Gómez *et al*, 2013; Dublineau *et al*, 2011; Mullis *et al*, 2012; Yezli and Otter, 2011; Indriani *et al*, 2010; Casanova *et al*, 2009; Deneen *et al*, 2000; Pönkä *et al*, 1999).

The purpose of this study is to examine the impacts of pandemic diseases that occurred on earth and especially Coronavirus (Covid-19) on food and the aspects relating with their transmission and to determine the fundamental differences in between them. Hence, in the study with regards to the relationship between pandemic diseases and food and beverages, the relationship of Covid-19 that is experienced today and food has been examined by considering the studies that are conducted as specified in the literature and a general frame has been determined. In this way, it was aimed to provide answers to certain doubts not only as relating with



food but also with respect to their consumers and enterprises such as hotels and restaurants that make production and provide services in relation to food.

## **2 COVID-19 and relationship with food production area**

In the researches being conducted recently, it is stated that Covid-19 is rapidly being transmitted widely from people to people but that there are no evidences proving that it is contaminated from food to people, yet. Similarly, it has not been determined that it gets contaminated from farm animals. As measures it is mentioned about making the workers playing role in the preparation of food and beverages to be made conscious and taking necessary sanitation measures (COVID-19 Advice For Food Businesses, 2020 ,<https://www.safefood.qld.gov.au/Covid-19-advice>) as being required.

With the Covid-19 outbreak being experienced, millions of people continue their work from their homes. But the situation is different for the food and beverage production industry. In order for the production of food and beverages not to be disrupted, it is required to be present at production sites and to bear the responsibility to continue the production activities. Although many enterprises such as restaurants and cafes have closed their doors today, they still continue with their activities on home delivery terms or take away method. In the food chain where there are many number of stages, more attention must be given to each stage due to pandemic disease and to contribute for creating awareness in this respect. Coronaviruses search for living areas with the aim to reproduce (humans, animals etc). Food can not meet these requirements of viruses (World Health Organization, 2020).

In his study, Shahidi (2020) has evaluated the situation where Covid-19 influences food safety. In the said evaluation it is underlined that no evidences can be presented as proving that Covid-19 is effective on food with respect to food safety. It is known that many of the infection creators that are known in relation to food have animal origins with a significant rate (75%). It is recommended as an important application to make food become subject to cooking process before consuming them. Situations where Covid-19 viruses contaminate from the packages covering the food and to cause infections by this way, yet. Although it is known that numerous disease causing

microorganisms exist that cause contamination through food, no findings or evidences have been clearly submitted in relation to viruses (Newell *et al*, 2010:3).

While many questions await to be answered in relation to Covid-19 outbreak, it is inevitable that certain doubts will arise during this process. People have certain concerns regarding food safety in relation to this pandemic disease. While people closely monitor the news relating with this pandemic, they try to obtain information about provision or preparation of food.

No research has been conducted till now which proves that Covid-19 virus, on which new researches are rapidly being continued, is transmitted to humans through food and food packages (Brehaut, 2020). Food and beverage businesses are responsible for the health of customers. Due to the basic structure of this sector, restaurant employees process food. This adventure, a process that stretches from soil to plate, involves risks of all sizes. Even if studies on the current pandemic continue, these risks may arise at any time and may have negative consequences.

### **3 Discussion and recommendations**

There are researches being conducted about permanent presence of Covid-19 virus on different surfaces (van Doremalen *et al*, 2020). Although there are various discussions regarding the use of gloves during food processing, the use of food “disposable gloves” is not recommended according to the World Health Organization (World Health Organization, 2020:2). Furthermore, there are studies in literature that prove permanent presence of coronaviruses on gloves (Muller *et al*, 2008; Sizun *et al*, 2000). Nowadays when information change rapidly, this particular being mentioned continues to be debated.

To be supportive, with the aim to eliminate coronaviruses it is recommended for disinfectants to be used. Because due to their structures coronaviruses can be easily destroyed with disinfecting processes (U.S. Department of Agriculture, 2020). In this respect, disinfectant usages get widespread especially for personal cleaning, surface cleaning and equipment cleaning.

Covid-19 (Iuva Fact Sheet on UV Disinfection for Covid-19, <http://www.iuva.org/COVID-19>) viruses are also within this context. It is especially known that coronaviruses remain for long times on steel surfaces (Kampf *et al*, 2020). Therefore, when it is considered that types of knives that are used in commercial kitchens which make wide scale production, it is recommended that it would be appropriate for these knives to be kept in steriliziter knife cupboards providing ultraviolet rays.

Raw food should be kept separately. Especially with respect to cross contaminations in commercial kitchens, importance of application of color codes (red: uncooked meat; brown: cooked meat) was revealed once more within frame of kitchen discipline.

A fact which is known is that Covid-19's virus continues to exist on surfaces and in appropriate environments for a certain period. When it is looked from this perspective it is seen that enterprises such as food producers an restaurants which provide services based on food and which produce food are also under risk. The particular that is emphasized most in the studies is related with personal hygiene and environmental hygiene. Without doubt, applications such as HACCP will have to be revised and new regulations and applications will follow these.

Many areas of life have been affected due to epidemics in the world. One of these areas is the food and beverage industry. The Covid-19 pandemic, which has spread to such a wide area, slowed down the activities of food and beverage businesses, whose purpose is to make profit, and even brought it to a halt. Food and beverage businesses must survive as a result of these difficult conditions. Some moves are required for this purpose. To make these moves, knowledge and application skills in the kitchen/service department are required. There is something to know about the epidemics in the past years and the Covid-19 pandemic in terms of food and nutrition. At the same time, it is very important to put the information that needs to be known into practice.

In order to minimize the possible risks caused by the adverse effects of epidemic diseases in food and beverage businesses, business managers should have a broad knowledge base. It is vital that this information is passed on to lower-level employees.

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# MARKET ENTRIES OF EMNES IN DEVELOPED MARKETS – A CASE STUDY FROM SLOVENIA AND GERMANY

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**Abstract** To get an insight into internalization processes of Slovenian MNEs and particularly to their activities in Germany, we adopted a distinctively qualitative approach and conducted semi-structured interviews with key actors of five major Slovene companies we used as case studies. Our study shows that several major assumptions regarding frontier and emerging market MNE international activities do not fit to Slovene companies. They were found to act as innovation leaders with high quality products and services, as well as with competitive pricing, as long as their technological capabilities are competitive. The liability of foreignness as well as the liability of country of origin are steeply declining with increasing technological capabilities in Slovene EMNEs. They also showed high institutional familiarity and suffered little from uncertainty. Our study also shows that Slovene companies partially show competitive advantages compared to their German counterparts. Moreover, our findings confirm that economic liberalization, in this case Slovenia's entry into the European common market, is a significant force driving company growth and internationalization. Thereby, this study presents generalizable insights into the internationalization process from Central and Eastern Europe and anywhere where large multinationals are scarce yet.

**Keywords:**

internationalization, market entry, emerging market, neo-institutionalism, liberalization

## 1 Introduction

The most prominent and seminal internationalization theories (e.g. Vernon, 1966, 1979; Johanson & Vahlne, 1977; Dunning & Narula, 1993; Bartlett & Ghoshal 1989; Perlmutter 1969) are based on analyses of the internationalization processes of North-American and Western European multinationals (cf. Madhok & Keyhani, 2012; Guillen & García-Canal, 2009; Chittoor,

2009). African, South American, Central and Eastern European as well as Asian examples have rarely been used for theory building so far. The emerging and smaller markets of the world have primarily been used and researched as targets of foreign direct investments or as sales markets for companies from highly developed bigger countries (Bussière et al., 2005; Narula & Guimón, 2010; Popescu 2014; Szent-Ivány, 2017). Nevertheless, with emerging market multinational enterprises (EMNEs) accounting for about one third of global foreign direct investments nowadays (United Nations Conference on Trade and Development 2017) and with the rise of corporations from Brazil, Russia, India and China as serious competitive powers on a global state, researchers have identified the opportunity to get a glance at how emerging market firms internationalize. Seminal research on EMNEs' internationalization (e.g. Luo & Tung, 2007; Hennart, 2012; Ramamurti, 2012; Cuervo-Cazurra, 2012; Madhok & Keyhani 2012; Meyer, 2017) has since strongly increased our knowledge on the topic.

Despite those advancements, prominent international business literature still confines itself to the large emerging economies of the BRIC-countries, thereby neglecting the smaller and less prominent emerging and frontier markets and consequently the heterogeneity of non-developed economies (e.g., Buckley et al. 2007; Contractor 2013; Elia & Santangelo 2017). Consequently, our knowledge on the experiences of EMNEs from smaller emerging economies is scarce and thus presents a relatively under-researched topic. For instance, several Southern and Central and Eastern European countries have consistently been catching up to the European Union average in terms of GDP per capita and have experienced increasing export shares since their opening to the global economy (United Nations, 2018). The international activities of companies from that region have so far been disregarded as a resource for empirical data informing further theory building. We follow Wright et al. (2005) in claiming that the entry of eastern and southern



European countries into the European Union after their transition to market-based economies, has had major implications for the ability of firms based in those countries to access other developed markets, constituting a strong need and interesting avenue for further research to shed light on a blind spot in major international business research.

Consequently, following Wright et al. (2005), we chose to look at emerging market firms entering developed markets in an institutional perspective. We focus on Germany as the target market for companies from Slovenia due to the countries close historic, political and economic ties with Germany being Slovenia's largest export partner. Although both Slovenia and Germany are members of the European Union and despite their geographical proximity, Slovenia, on one hand, is, due to its size, labelled a frontier whereas Germany, on the other hand, has consistently been labelled as a developed market (FTSE Russell 2020; MSCI Inc. 2019; S&P Dow Jones Indices 2019). A focus on Slovenia seems additionally interesting, due to its position at the crossroads between Central, Eastern and Southern Europe influencing its culture as well as its business actions. Thereby, we aim at answering calls for contemporary empirical data to inform the debate by outlining effects of institutional differences (Guillén & Garcia-Canal, 2009; Luo & Tung, 2007; Ramamurti 2012), firm capabilities (Zaheer 1995; Madhok & Keyhani 2012), and subsidiary performance (Birkinshaw et al 2005). For this purpose, we particularly explore Slovene companies entering the German market.

## **2 Methodolgy**

In order to access primary empirical sources from both countries, we used the SloExport database to find Slovene companies with registered activities in German. Following Birkinshaw et al. (1998) as well as Meyer et al. (2020) we are focusing on wholly owned subsidiaries, in order to have proof of activity. Owing to practicality, we focussed on companies with given contact information in the data base and more than ten employees. We were left with 40 companies to which we sent interview enquiries via email addressed to the managing directors or spokespeople of the HQ and/or to the subsidiary representative in Germany. We received positive responses of twelve companies who were willing to participate in interviews. Due to the limited sample size, we chose a multiple case study analysis approach inspired by Yin (2014.) The case studies are split into media data collection as a first step, and qualitative

interviews in the second step of data collection, both preceded by a context data collection. Data collection includes company and market data through content analyses of homepages, annual reports and press releases combined with semi-structured interviews. To get an insight into internalization processes of Slovenian MNEs and particularly to their activities in Germany, we adopted a distinctively qualitative approach and conducted semi-structured interviews with key actors, including sales directors and CEOs, of five Slovene companies. Moreover, we collected rich company data via media and document analyses. The study fulfils Tung and van Witteloostuijn's (2008) guidelines to count as intrinsically international in nature and follows Rousseau and Fried's (2001) as well as Jackson and Deeg's (2019) calls for contextualized and institution-based organizational research. We triangulated via applying different data collection methods, i.e., semi-structured interviews and document analysis i.e., HQ, subsidiary, and company publications and media and data sources by also including expert interviews from seven HQ managers responsible for the German market for sample companies not selected for the case studies. The interviews took place in July and August 2020 with a duration between 45 to 75 minutes and were conducted in person as well as via video conferencing. We asked questions regarding general socio-demographic characteristics of the interview subjects such as gender, family status and nationality as well as biographic information such education, company tenure, position, international experience. The core focus were questions on market entry decisions and evaluations. Additionally, questions on perceived institutional differences were asked. The interviews were conducted in English or German depending on the interviewee's preferences aiming to avoid linguistic hurdles. All interviews were recorded and translated by the respective interviewers from German into English if applicable and paraphrased and transcribed via the NVivo transcription software in order to facilitate discussion and analysis. A qualitative content analysis of the data gathered from the media data, company publications and the interviews was applied to structure manifest and/or latent content into categories (cf. Mayring 2015). A deductive categorization based on Scott's (2001) pillars of institutional surroundings as well liability of foreignness characteristics were applied, which were amended through an inductive categorization on effects of economic liberalization, innovation and product competitiveness.

### **3 Results**

Our study shows that even though both affect Slovene companies in big developed markets, the liability of foreignness as well as the liability of country of origin are steeply declining with increasing technological capabilities of the EMNEs. Traditionally, EMNEs possess few firm-specific advantages and therefore are assumed to seek the acquisition of technologies, brand names and other ownership advantages they lack (Zaheer 1995; Madhok & Keyhani 2012) and to enter new and particularly developed markets to explore and to gain access to new resources and capabilities (Hoskisson et al. 2004). This assumption, however, has not been confirmed in our research. Instead, Slovene companies were found to act rather as innovation leaders with high quality products and services as well as with competitive pricing, as long as their technological capabilities are competitive. While EMNEs have often been found to suffer from high levels of environmental uncertainty in the new market due to unfamiliarity with local customs and regulations (Bartlett & Ghoshal 2000, Hoskisson et al. 2000, Thomas et al. 2007), Slovene companies in Germany show high institutional familiarity and do suffer little from uncertainty. This steeply differentiates them from other EMNEs, especially from Eastern Asia (Guillén & Garcia-Canal, 2009; Luo & Tung, 2007; Ramamurti 2012). Of special importance is, that Slovene companies seem to be treated as peers, partaking in national industry roundtables.

Our study also shows that this might be due to the fact that though EMNEs traditionally seek competitive parity rather than competitive advantage in the new markets (Madhok & Keyhani 2012), Slovene companies partially show competitive advantages over their developed market counterparts. They are incorporating struggling former suppliers not in a hostile but integrative approach to save their businesses which wouldn't survive as a standalone but can be used as a useful anchor in the foreign market. Nevertheless, The COVID-19 pandemic put an end to several years of healthy growth in Slovenia. Additionally, Germany was hit hard by the Covid-19 pandemic as well, which has also affected the focus companies. Nevertheless, due to Germany's significance for the focus companies, no subsidiary divestments were detected, despite the geographic distance. Reason being the global scale of the pandemic and the importance of the German market for the focus companies and the requirement of having a local responsible company authority by

the German customers and business partners. This can be traced back to a certain sense of importance in the German business landscape.

Moreover, our findings confirm that economic liberalization, in this case Slovenia's entry into the European common market, is a major force driving company growth and internationalization (Hoskisson et al., 2000). Since lastly, in recent years, Slovene companies themselves have become an investment target for global investors from other emerging markets (e.g., China - Gorenje and or Egypt - iskraemeco), due to their location at the crossroads of Europe, the stable institutional environment coherent with the bigger European markets and of course the participation within the European Single Market.

Our findings may prove as useful groundwork for research in other emerging markets in Europe, but just as well in other global regions. This presents generalizable insights to the internationalization process from Central and Eastern Europe and anywhere where large multinationals are scarce, yet.

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# SECONDARY USE OF RAW MATERIALS IN FOOD SECTOR ENTERPRISES IN POLAND

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**Abstract** Circular economy (CE) nowadays has a significant impact on economic development. Reusing by-products is one of the key components of the CE paradigm, particularly important in industries using biological raw materials for production. This subject is widely discussed in many publications in the field of economics, while the practical use is scarcely described. The aim of the study was to verify whether companies operating on the Polish food industry market are re-using by-products for further production, what are the benefits of such an approach and whether it's time for a new way of managing by-products. Computer-assisted telephone interviews were conducted to verify opinions about the cost-effectiveness and competitiveness of enterprises in terms of reusing by-products and closing loop in production. The study covered 100 food industry companies. The most important conclusions are: (1) 92% of companies reuse by-products, (2) CE principles contribute to the improvement of competitiveness and cost-effectiveness, (3) 21% of companies are planning investments that will enable "closing the loop". There are processes in the analyzed sector that indicates increasing interest in implementing the principles of the CE by production companies.

**Keywords:**

circular economy, circular economy implementation, food waste hierarchy, closed loop, sustainable resource use

## 1 Introduction

Global human population growth increases the demand for food, which is associated with increasing use and shrinking of natural resources, e.g., water, energy or agricultural land. Moreover, growing consumption increase CO<sub>2</sub> emissions to the atmosphere. The development of the food sector in a sustainable way should reconcile three goals: economic, environmental and social. Reducing the consumption of natural resources is one of the essential elements of sustainable development (EMF, 2015). It is necessary to efficiently manage limited resources. To manage efficiently in sustainable meaning enterprises may implement the principles of the "circular economy" (CE) as a business model (UN, 2019).

The circular economy is targeted at making optimum use of natural resources, raw materials and products and re-using them. This means that all resources are still used in a way that adds the most value to the economy and causes the least damage to the environment. The circular economy aims to use natural resources for longer and as far as possible (Rood et al, 2019, p. 4).

The circular economy nowadays has a significant impact on economic development, more broadly, on the development of civilization. CE is included in many national strategies as well economic one and those for the development of individual industries includes agriculture and the food industry. This subject is widely discussed in many publications in the field of economics, while its use in practice is still scarcely described, especially in the realities of the Polish economy.

Poland is an important producer of food products, not only domestically, but within the EU. In 2019, it was the largest producer of poultry meat and the fourth largest producer of pork in EU (Podstawka, 2020). Moreover, Poland was the largest producer of apples in the EU, second largest producer of rye and oats, and third largest of potatoes, sugar beets and rape (Statistics Poland, 2020). Such large food production generates significant amounts of biological waste, which potentially creates opportunities for optimization and implementation of circular economy concepts (Deloitte, 2018).



## 2 Literature review

A review of literature on the circular economy in the food sector shows that exist higher and lower value possibilities of reusing natural resources. A circular economy promotes making optimal use and reuse of raw materials and products in order from higher-value to lower-value what is called cascading hierarchy (Cicullo et al., 2021).

Food processing companies may implement operations leading to closing the loop. (Aznar-Sánchez et al., 2020) Levels in the cascading food recovery hierarchy (from most preferable to least preferable), based on Moerman's Ladder: (Rood et al., 2017)

- a) Preventing food losses
- b) Human food
- c) Converted into human food (food processing)
- d) Used in animal feed
- e) Use as raw materials in the industry
- f) Process into fertilizer through fermentation or composting
- g) Applied for sustainable energy: biogas or biofuel
- h) Other energy purposes: incineration

Levels in the hierarchy were the basis for designing the study. Research focused on points C – H, as activities that can be implemented in factories. The hierarchy of operation importance was used in the study as a criterion for evaluating the advancement of enterprises about implementing the concept of the circular economy in the functioning of the enterprise.

### 2.1 Computer-assisted telephone interviewing

Based on theoretical and empirical micro-foundations, a survey was conducted to understand how Polish enterprises in the agri-food sector manage waste and by-products. The study was conducted using computer-assisted telephone interviewing where interviewers conducted surveys over the phone after prior training. The responders were owners, managing directors and production managers.

The surveys were conducted in 100 companies in Poland producing by-products. Companies were randomly selected from 1832 companies meeting the research assumptions from Bisnode database.

The study covered food industry companies operating in industries with the greatest amount and diversity of biological waste. The survey was conducted among enterprises from the following industries: (i) meat (N=36), (ii) dairy (N=22), (iii) fruit and vegetable processing (N=29) and (iv) cereal processing (N=13). These are significant branches of the food sector in Poland, accounting for 72% of the value sold in enterprises employing over 49 people (EMIS, 2018, p. 8).

As a result of the research, it was found that in the case of 92% of the surveyed companies, by-products are used as raw materials in other processes. The remaining 8% of the surveyed companies do not reuse by-products.

### **3 Results and discussion**

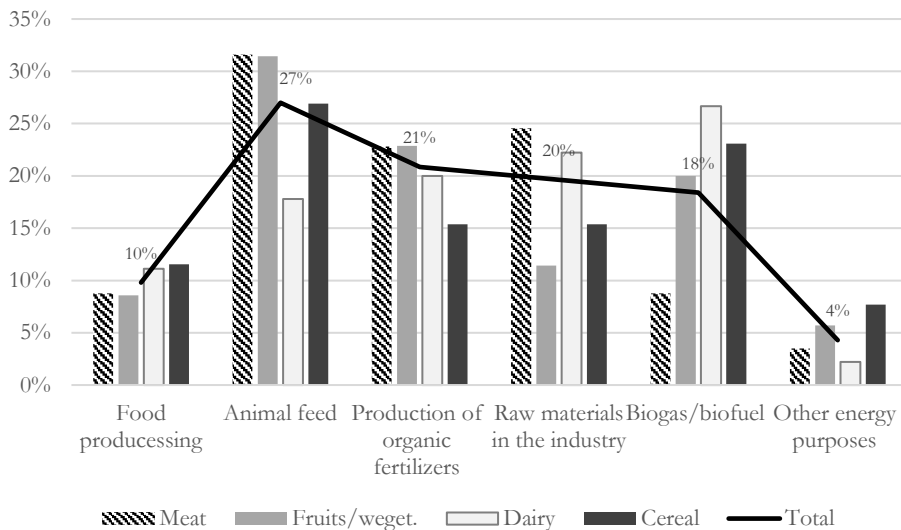
#### **3.1 Hierarchy**

It can be concluded that the surveyed food enterprises utilize by-products following the concept of cascade management of biomass apart from human food.

In terms of cascading hierarchy by-products are most often used for animal feed (27%), then for the production of organic fertilizers (21%), as a raw material in other industries (20%), as biogas/biofuel (18%), for food processing (10%) and other energy purposes (4%). This means that Polish companies in the food industry maximize the possibilities of using by-products from their production as raw materials in other types of production, despite human food where is going 10% of by-products.

Analyzing the way of using by-products in various food sectors, the meat industry is the one in which the principles of the cascading hierarchy are best implemented. In this industry, the highest percentage of by-products intended for the most valuable re-use methods (feed production, organic fertilizers and as a raw material in other industries). Also, the fruit-vegetable and cereal processing industry follows the circular economy however high percentage of by-products is used for the production

of biogas and biofuel (less valuable ways of using by-products). Research shows that the dairy industry makes the least use of the by-product management potential. Whey, which is the main by-product in dairy farming, can be used for both food production and animal feeding, but the largest percentage goes to biogas and biofuels.



**Figure 1: Structure of answers to the question: How the by-products are used? - in sectors**

Source: Own study based on the research: "The reuse of raw materials as an element of the circular economy and the possibility of strengthening the competitive position of food industry enterprises", SGH KNOP, Warsaw 2020.

### 3.2 The place of re-use

In the surveyed companies, by-products are reused mainly outside the production plants in which they are produced. The minority of by-product production plant is a place for its further development. Most of them are sold or processed at the business partner's facility and a significant proportion is given away free of charge. Bones, hooves and whey are mainly distributed for free. The reason for this may be the necessity to carry out investments in the plant, organizational changes or low profitability of processing at the place of production.

The place of by-products recovery is similar across all sectors. It can be concluded that the implementation of the circular economy is the most advanced in the case of the meat industry and the least advanced in the dairy industry. All the surveyed companies in the meat industry recycle by-products and are intended mainly for animal feed (a valuable way of using the by-product). Among the dairy enterprises surveyed, 79% of the remaining dairies use their whey for biogas (a less valuable use of by-products) and 21% utilize whey. Meat industry by-products are easier to reuse as they do not require such advanced technologies moreover are a more expensive raw material compared to whey.

### **3.3 Improvement of competitiveness and cost-effectiveness**

Based on the responses can be inferred that closing the loop brings savings in the production. Respondents mostly agree with the research question “does the implementation of the circular concept lead to savings in production?”. The organizational and production changes that would have to be made to reuse a variety of by-products for production result in savings.

In addition to savings in production, the reuse of raw materials brings environmental effects in the form of less waste, reduction of soil, water and air pollution, and has the opposite effect to the pressure to intensify agriculture, because raw materials are used in a more efficient way. The respondents mostly agree (57%) and strongly agree (31%) with the issue that the activities of the circular economy have a positive impact on the natural environment.

Most respondents agree that closing the loop and introducing the concept of circular economy as a business model increases the competitiveness of enterprises. On the basis of the conducted research, we can conclude that a closed loop improves the competitive position.

The principles of the circular economy were created to protect our planet from excessive waste, but for the implementation of this idea to a large extent, it is necessary that their consequence is the results in the form of effective management of raw materials, savings in production, attractive products, or strengthening the company's image as a socially responsible enterprise.

### **3.4 Investments**

In 21% of enterprises plan to make investments that will enable "closing the loop" means limiting losses in food production, valorization of by-products and their recycling, or management of by-products and other processes. In 36% of enterprises, such investments are considered. More than half of the interviewed companies planning or considering investing in circular economy systems. Such a large scale of phenomenon in the industry indicates the need and great importance of this economic concept, which brings savings and promotes environmentally friendly production.

## **4 Conclusions and implications**

The results of the study show that enterprises are in the process of change and implementation of the circular economy principles in production plants. Food companies do little to re-use their by-products from their plants and transfer very little by-products for human food. This raises the question of whether closing the loop within a single enterprise is economically effective and whether it is possible to use the by-products for more food purposes and more for high-value use. There may be various reasons why this does not happen. It can be the lack of a market or unfamiliarity. It needs to be looking for an application that offers the highest economic value with the least damage to the environment. Also, conflicting goals may be a barrier. The high-value use of residue streams cannot always be reconciled with the legislation on food safety, fertilizers and waste management. For example, bone meal cannot be used in animal feed because of the risk of disease. Moreover, in some cases, lower-value use may be less economically profitable than a higher value. An example can be energy policy. Energy policy aims to encourage sustainable energy and, therefore, the fermentation of residue streams is subsidized. These residue streams, however, could be used more profitably as food, animal feed or as resources for bio-refining, depending on the fermented raw material. To promote a circular food production system the government plays an important role by facilitating cooperation, as well as encouraging innovation and data transparency on residue streams also weighing up the different goals (Rood et al., 2018, p. 24).

According to research, the implementation of the principles of the circular economy is becoming increasingly important for food production plants. This confirms that the principles of the circular economy are an important issue in the contemporary food industry

### **Acknowledgement**

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# CREATING PUBLIC VALUE BY SIMPLIFYING PROCESSES? A PATH IN AN UNEXPLORED TERRITORY

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**Abstract** The paper considers the effects of administrative processes on the creation of public value. Administrative activities absorb a relevant part of public institutions' resources. We analyze the accounting routines and procedures of some Italian public institutions: it emerges that recent reforms boosted complexity by requiring public organizations to generate a growing volume of accounting data. Moreover, controls made by external authorities have intensified. According to the literature, complexity generates costs: we show that in the public sector this negative consequence does not only affect the institutions themselves, but it also extends to the stakeholders. The paper is based on case studies that the authors could personally observe. In the conclusions, we analyze the main factors that contribute to generate complexity and their effects on the creation of public value. The stakeholder theory is adopted as theoretical background, considered that public value refers to all the subjects that are affected by the administrative action.

**Keywords:**

efficiency,  
support  
activities,  
processes,  
public  
administration,  
stakeholders

## **1 Introduction and purpose of the paper**

As a consequence of neo-liberal policies in many countries, the direct intervention of public administrations in the delivery of services to the taxpayers has narrowed: in many contexts, public institutions have taken off the role of service providers reserving to themselves the role of regulators. Administrative processes other than the delivery of services range from the definition of rules and contracts to the so-called support activities (i.e. planning, budgeting, accounting and reporting, human resource management, procurement and facility management): considered the great volume of resources absorbed by these processes, their efficiency and the effectiveness have gained relevance for the legitimacy of public institutions. Even in the organizations that deliver services to citizens, such as hospitals and universities, administrative processes absorb a far from irrelevant amount of resources.

An important body of literature argues that to gain legitimacy, public institutions must create public value (M.Porter & M.r. Kramer, 2011) and be accountable for their performance in terms of economy, efficiency and effectiveness. The issue of effectiveness has inspired the public management literature in the last 30 years, giving rise to an important research streams on performance measurement and performance management. On the other hand, efficiency has been considered with respect to cost measurement and the need of a shift from cash to accrual accounting. We consider, however, that the debate on the accounting system does not exhaust the issue of efficiency: measuring the costs of the public services doesn't necessarily make public institutions more efficient. The leading actors in the debate on public administrations' efficiency have been researchers in law, political sciences and econometrics (Agasisti, 2017; De Witte & Lopez Torres, 2017): efficiency has been, first of all, object of study at field level. The paper explores the issue of public administration's efficiency at institutional level, from the perspective of public management studies. Through the examination of some administrative processes, we argue that efficiency in this area is not just an issue concerning the costs of public services: it has an effect on several aspects, that involve different stakeholders of public institutions. Hence the growing importance of the theme.



## **2 Literature and methodology**

The paper considers the issue of the efficiency of accounting routines as an example of support activities. Different research streams can be identified with regard to the accounting systems of public institutions. A first research stream stems from the shift from cash-based to accrual-based accounting systems promoted by New Public Management (NPM) inspired policies: research in this field has focused on the technical aspects of the accounting system (Carlin, 2005; Christiaens & Rommel, 2008; Ella et al. 2011), mostly with the purpose of evaluating the adequacy of accrual accounting for public institutions and the move toward IPSAS.

A second important body of literature considers the process of emergence and change of management accounting routines: in particular, the institutionalist theory (van der Steen, 2011) and the contingency theory have been adopted to explain the change of management accounting practices as a reaction to external stimuli. Routines are interpreted as a set of recurrent, situated practices; Burns and Scapens (2000) define routines as “the way things are actually done” and as “procedures habitually in use”. Thus, for the purposes of this paper the concept of “procedure” is used as a synonymous of routine. The idea of routine somewhat overlaps also with the concept of process: it is therefore necessary to clarify the aspects that allow to distinguish the two concepts. According to ISO 9001 (2015), a process is “a set of related or interacting activities, which transform inputs into outputs”, while a procedure is “a specific way to carry out an activity or a process”. Thus, two main differences between procedures and processes can be identified. First, procedures are based on rules that are either developed internally (i.e. by the organization itself) or are imposed by third parties: these rules define how the process must be carried out. However, one process may be accomplished according to different procedures. Second, a procedure can be narrower than a process: in fact, a procedure can refer to a single activity while a process is a set of related activities.

The academic debate has focused on the logic underlying the structure of the accounting systems and on the change of management accounting routines: however, little attention has been given to the efficiency of processes and routines performed for the functioning of the accounting system. Public management studies raised the problem of public administrations’ efficiency, but little attention was given to this issue with regard to support activities. Little has been said on possible

strategies to enhance the efficiency of processes carried out by public institutions. We consider routines and processes that support the budgeting, accounting and reporting system of some public institutions as an example of a broader group of “support activities”. The functioning of the accounting system, regardless whether cash or accrual-based, implies the carrying out of activities (how things are actually done). Activities give rise to costs. There is a lack of knowledge on what the sources of costs and inefficiencies are in the support activities performed in public institutions and on the possible strategies to improve efficiency. In this paper we assume that there is a direct relation between the complexity of procedures and the consumption of resources: this assumption underlies great part of the management accounting research (Cooper and Kaplan, 1988). Reasonably, the simplification of processes and routines would enhance efficiency.

Simplification of public administration is by no means a new theme: for over a decade, it has been the keyword with regard both to the evolution of the legislative system and to the relation between citizens and public administration. According to Ferrari (2018), simplification is “*a kind of slogan that summarises a series of trends all related to the democratic principle exalted by a new context of participation and translated into cooperative-contractual formulas, local autonomy which varies in degree from country to country depending on the level of vertical separation of power, horizontal subsidiarity (...), competition and the market, efficiency which is not just enterprise-oriented but is tempered by the need for forms of solidarity...*”. Simplification may concern different areas: the regulatory system, the intensity of the intervention of public administration in the society, the relations between PA and citizens and enterprises (Gobba, 2020) and the role of technology in this relation (computerization), the reduction of paper documents... Notwithstanding the relevance attributed to simplification, often the processes and the routines adopted in support activities have become more and more complex: budgeting, accounting, reporting and auditing activities reflect this trend. A recent study of the Policy Department for Structural and Cohesion Policies of the European Parliament on the simplification of procedures within the European Structural and Investment Funds confirms that “*the problem is essentially one of the costs incurred in the process of financial control and audit versus the benefits this produces*” and that “*at the present moment, significant simplification has yet to be realized*” (Ferry & Polverari, 2018). We argue that researchers in public management may play an important role for the definition of simplification strategies for processes and routines at institutional and infra-institutional level.

### **3 Case studies' description**

Despite the fact that technology today facilitates the collection and management of an increasing volume of data and information, the complexity of support activities in public administration has increased in the last decades: complexity depends on the number of subjects involved in the processes and procedures, as well as on the volume of relations among them (Collison & Jay, 2012). Thus, a procedure that requires two signatures of different subjects working in different departments in order to authorize a transaction is more complex than a procedure where one subject can authorize the same transaction through a specific business application. The effects of complexity on the costs of support processes are plausibly negative: each adjunctive activity requires resources, i.e. expenses. There is a direct relationship between complexity and costs of administrative processes: moreover, when activities performed do not add value to the addressees, complexity gives rise to inefficiency, i.e. consumption of resources not generating any added value. In this section we describe some examples of processes and procedures that we had the opportunity to observe in the accounting department of some public institutions.

The first case considers an agency for services to persons (ASP), which is a peculiar form of public institution in Italy: the ASP considered here aims at delivering hospitality and care to visually impaired persons. Care services range from professional training to recreational activities, physiotherapy, visual re-education, improvement of personal autonomy and schooling support. Each looked after person receives customized services for his/her specific needs. The institution is relatively small: it has 120 clients and 60 employees. This ASP still uses commitment accounting, although the shift to accrual accounting was decided two years ago; the total incomes in the budget for the year 2020 amounted to € 5.3 millions.

The institution has several legal disputes with suppliers, due to unpaid invoices. The decision not to pay the invoices depended on formal mistakes in the documents: the administrative procedure adopted internally provides that two persons check each invoice before proceeding to the payment, in order to verify the respect of 30 conditions. The institution gets electronic invoices: in Italy, since 2007 (law n. 244) all suppliers of public administration must use electronic invoicing. The documents are prepared as xlm files according to a specific layout known as "PA invoice": usually, an electronic invoice occupies four times the number of pages of a paper

document. Thus, reading an electronic invoice is more complex. Suppliers transmit the electronic invoices to the “Interchange System” (IS) through accredited channels (i.e. file transfer protocol, web-services) or by certified electronic mail. The IS gets the e-invoices, check the files and feed it into the institutions’ bookkeeping system and in the meanwhile delivers the document to the Department of Treasury. After the feed is accomplished, the invoices must go through the institution’s business process to be paid; once the institution gets the invoice, it can reject it. In the case considered here, the ASP didn’t pay the invoices for three main reasons:

- 1) The absence of the CIG code, i.e. an alpha-numerical code that identifies the tender. The code is created by the public institution at the moment of the request of supply. It has a twofold purpose: to control public administration’s financial flows and to support the Agency for the Control of Public Contracts in its anti-corruption activity. Suppliers that are not used to work for public institutions often are not aware of its importance and don’t put it on the invoice. According to the decree 66/2014, however, this code is compulsory and public organizations cannot go on with the payment of the invoices lacking this element.
- 2) Wrong code of document identification: another code is requested to indicate whether the document is an invoice, a credit note, a debit note or any other sort of document.
- 3) Wrong rounding of the amount of the invoice, so that it results bigger than the total value agreed in the contract.
- 4) The supplier is not in a regular position with the payments to the national or sectorial agencies that manage retirement contributions: in this condition, public entities cannot pay suppliers. Of course, this rule further augments the supplier’s financial distress and its inability to pay the contributions.

The administrative procedure adopted by the ASP provides that both the accountant and the head of administrative department check the respect of 30 conditions in the invoice before proceeding to the payment. This “double check” routine has been adopted considering that a quite high number of invoices lacked some elements or evidenced other kinds of mistakes: the great number of data that have to be included in the invoice has increased the complexity of this document, but suppliers do not always have the competencies to manage it. One should consider also that the ASP may benefit from delayed payments to the suppliers, since the time period to collect

cash from some looked after persons and from other public institutions (i.e. the Region) is quite long: therefore, the ASP does not pay invoices even if the mistake is merely formal. Non-payments had two main consequences: first, the increase of legal expenditures due to the disputes with the suppliers. The second consequence regards the canteen service: the supplier lowered the quality of the meals, thus destroying value for looked-after persons.

The complexity of routines has increased also because of the growing mass of information required from the accounting and the reporting systems. The accounting system of the Italian local and regional governments' is a clear example of that: since 2009, with the law n. 42, accrual and commitment accounting have to be integrated. Before this reform, these institutions did not use accrual accounting. The new system allows to record all transactions according to the two logics, thus producing information on residual financial resources as well as on incomes, expenses and margins. The reform had two main purposes: the availability of information on the cost of public services and the adherence to the international trend toward the adoption of accrual-based accounting. Actually, cost control has proved to be merely ceremonial (Caccia e Steccolini, 2006) and it didn't produce appreciable effects on political and managerial decisions; moreover, the elective bodies vote a budget that is based only on commitment (and cash) accounting, and in the reporting phase too the town or regional councils do not consider the balance sheet and the income statement. This raises the question whether the new compulsory and highly complex accounting system really adds value for policy makers, managers and citizens.

The choice made by the legislator for Higher Education Institutions is different: in 2010, law 240 imposed to substitute the previously dominant commitment accounting with accrual-based accounting. Implementing the reform took five years and absorbed a great volume of financial and human resources. Also in this case, the main stimulus for introducing accrual accounting was cost control and the measurement of universities' economic sustainability. Academics, however, consider the profit-inspired logic of accrual accounting detached from the context of universities: what they are truly interested in is the residual value of financial resources available on research projects. For most projects the economic performance is simply not relevant, since research activities are not expected to generate profits.

The introduction of accrual accounting should have allowed universities to pay more attention to the use of resources, i.e. cost control. However, only very few universities have adopted managerial accounting and, *de facto*, the cost of teaching or research programs is barely correlated to the outcomes of institutional activities (Busetti & Dente, 2014). In the university that we had the opportunity to observe, the administrative routine requires that the administrative staff of the departments prepares an accrual-based budget for each research project that academics submit to financing institutions. This routine was introduced as a preventive control to avoid the incurrence of losses from research projects, something that sometimes had occurred previously. The project budget has to be made according to specific rules defined by the central administration of the university and, of course, it doesn't comply with the budgeting rules set by the funders. Thus, even if only 10% of the research projects submitted get the grant, the departments' staff has to prepare two different budgets for each research proposal: one for the funders and the other for the central administration of the institution. It is not difficult to imagine that this routine has entailed a considerable burden in the workload of the administrative staff of the departments. The research office of the university's central administration has also the task of verifying the suitability of all budgets, i.e. that the total income from the project allows the coverage of general expenses of the university for at least 20% of the total value of the project (excluding teaching and academic staff cost, that is included separately in the budget). Projects that do not meet this condition simply cannot be submitted. Moreover, once the grant is obtained, to avoid that the reporting of ineligible expenses results into losses for the university at the end of the project, the central administration does not allow departments to use the value covering the general expenses, thus limiting the activity of the departments.

#### **4 Discussion and conclusions**

The debate on the simplification of public administration dates back to the '80s, with the advent of New Public Management, that raised the need for efficiency and effectiveness improvements: however, research streams have focused mostly on the relationship between P.A. and citizens as well as on the simplification of administrative and fiscal legal systems.

Our analysis of some administrative routines reflects the daily experience of many practitioners within the P.A.: it suggests that simplification must also take place within public entities and in the relationship with other categories of stakeholders, such as suppliers. The situations observed show that the complexity of procedures stems from some elements, namely the need for controls (which is typical of administrative law) and the volume of information requested to manage organizations (which is typical of management studies). Several analysts see an inherent tension between basic private management techniques involving competition, speed, efficiency, individual accountability and responsiveness to consumers, and the slow, detailed, egalitarian and equitable approach inherent in administrative law (Guyomarch, 1999). We examined case studies referring to the Italian context, but the issue of the tension between legal control and efficiency extends also to other legal systems: presumably, different approaches are adopted in different contexts to manage this conflict, thus suggesting the need for comparative research. According to our analysis, administrative controls are required by internally defined routines (as in the case of the budget of research projects), or by hierarchically superordinate entities (electronic invoicing aims at preventing corruption and at controlling the financial flows of P.A.): this kind of inspective controls is supposed to generate public value by preventing errors, opportunistic behaviors and wrong decisions. However, little consideration has been given to the costs generated by administrative controls; the same can be said with reference to the proliferation of data that accounting systems have to produce. In the managerial accounting literature, inspective controls are classified as boundary systems (Simons, 1995); their effects on the efficiency of public administration deserve attention. At least three main effects have to be considered: a) the consequences of inspective controls and requests for new information on the organization's efficiency: each control as well each information required absorbs time and human resources, lengthens processes and delays the achievement of the expected results; b) staff motivation: the case of university's routine clearly shows that controls on research projects' budgets demotivate the administrative staff of the departments and has generated a long-lasting conflict between the departments and central administrative offices; c) the effects that inspective controls and adjunctive information have on the stakeholders: what is supposed to generate value for hierarchically superordinate institutions may produce negative consequences for other subjects (like the case of the ASP demonstrates) or may increase costs with no noticeable benefits (like in the case of the integrated accounting system of local governments).

The juridical-administrative analysis is not sufficient to approach the problem of public administration efficiency; nor it is the managerial approach. The cases discussed here suggest that the setting of administrative procedures must consider the fairness and correctness of activities, as well as their efficiency and effectiveness. It is necessary to start an interdisciplinary dialogue to develop solutions that balance opposing needs. The stakeholder theory (Mitchell et al., 1997), may represent a common ground for researchers in management and researchers in administrative law to analyze the effects of processes and procedures on different groups of stakeholders and to observe how public organizations react to opposing pressures exerted by them.

The paper wants to suggest that public management scholars have the opportunity and the burden of a contribution in this field, answering various questions that involve the work of many public officers. What factors boost complexity in administrative routines? What factors enable (or hinder) the simplification of process and routines? Is it possible to assess the cost of complexity in administrative processes and routines? Is there a relationship between the complexity of routines and organizational well-being? What role do interactive control systems and process reengineering (Ongaro, 2004) play in the simplification of processes and procedures? What are the effects of opposing institutional pressures on the design of administrative routines? What is the importance attributed to the issue of simplification and efficiency of processes by public managers?

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# MOTIVATING EMPLOYEES IN PUBLIC ADMINISTRATION

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**Abstract** The purpose of the publication is to present the specifics of motivating in public administration. There is no doubt that employees should be motivated regardless of the workplace. The publication presents the definition of motivation and its theory. It contains tips on what should be particularly considered in creating an incentive system in public administration. Particular attention was devoted to creating the foundations of a motivational system that has roots in motivation theories. The most common motivational theories and their importance in shaping the incentive system were presented.

**Keywords:**

motivation,  
public  
administration,  
employees,  
motivation  
theories,  
incentive  
systems

## 1 Introduction

Motivation is a very important element of management in every workplace, including in public administration. A well-motivated public administration employee provides better quality services to the residents. Managers who can find the key to the internal motivations of their subordinates can use huge energy sources and thus effectively influence the achievement of the organization's goals.

The question then arises: how to motivate the employee to work willingly, to be creative in his work and to be successful, which will translate into high quality work of the whole company?

There are a wide range of ways to influence the efficiency of the work of employees. These methods have been developed over the decades and further research is still ongoing. The purpose of this article is to identify and discuss different ways of motivating public servants.

The article shows that different motivational tools can be used in public administration.

## 2 The importance of motivation

Motivation triggers, directs, and sustains specific human behavior. It has many meanings. It is often referred to as the set of internal forces that make people behave in a certain way. Thus, motivation is a person's readiness to take specific actions. Motivation can be stimulated and strengthened in various ways.

“Motivating is a complex process of reaching employees' motivation. Evoking readiness for a specific attitude and action”<sup>1</sup>.

Motivating employees is considered one of the basic functions of management. It means influencing people in such a way that, as a result, it increases not only the work efficiency of individual people, but also the value of the organization, its effectiveness and efficiency. This is particularly important in public administration

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<sup>1</sup> Tadeusz Listwan [red], Zarządzanie kadrami, Wyd. IV, Wydawnictwo C. H. Beck. Warszawa 2010, p. 169.

in view of the growing expectations of citizens. Motivating is always personal: someone motivates someone to do something. The manager motivates the employee to work more efficiently. Self-motivation is also of great importance when a person motivates himself.

There are therefore two basic types of motivation: internal and external. In the case of intrinsic motivation, the employee finds the will and strength to act on his own. This happens when the work is relevant, interesting, provides autonomy, gives the opportunity to develop and is fairly remunerated.

Externally motivated is when certain external actions are taken to motivate people. These include, for example, rewards, bonuses, praises and penalties. External motivators bring quick but not long-lasting effects. Internal motivators bring deeper and long-lasting effects<sup>2</sup>.

According to H. V. Glaser, each effective work depends on three factors: willingness, abilities and possibilities<sup>3</sup>. The first factor is related to internal motivation, the second to competences, and the third is related to the participation of managers who should:

- ensure the sense of the work performed,
- set goals,
- specify expectations,
- share knowledge,
- define the expected results,
- openly talk to employees about their performance.

Motivated people are convinced that their work will bring the expected results, and with them appropriate remuneration that will meet their needs. Well-motivated people are able to commit themselves to achieving the goal, however, most of the employees need external motivation<sup>4</sup>.

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<sup>2</sup> Michael Armstrong, *Zarządzanie zasobami ludzkimi*, Wyd V, Warszawa 2011, p. 287.

<sup>3</sup> Tadeusz Oleksyn, *Zarządzanie zasobami ludzkimi w organizacji*, Wyd. III, 2014, p. 292.

<sup>4</sup> Michael Armstrong, *Zarządzanie zasobami ludzkimi*, Wyd V, Warszawa 2011, p. 286.

### 3 Theories of motivation

There are many theories related to motivation in the literature. The most important of them are briefly described below.

According to McClelland's theory of endeavor, people pursue one of three goals:

- 1) professional achievements and creativity,
- 2) power,
- 3) good relations with the job environment.

In the process of motivating, managers should first recognize people's aspirations and then motivate them accordingly.

The expectation theory was developed by V. Vroom and suggests that motivation depends on two factors<sup>5</sup>:

- 1) how much people want something,
- 2) the expected probability of fulfilling that desire.

The author draws attention to the fact that people with low self-esteem are very difficult to motivate because they do not believe in the possibility of achieving even relatively simple goals. Managers should therefore encourage employees, tell them that they "believe in them", that they "can". Such simple phrases are driving force, while criticism is destructive.

B. F. Skinner's theory of reinforcement emphasizes that people are willing to duplicate actions that in the past brought them success or are associated with pleasure, and avoid those that once led to failure or are associated with pain. It results from people's subconsciousness, and it often has its roots in childhood. The great importance has persistence of behaviors learned in the first hours and days spent at work. If someone from the beginning was treated as redundant, his professional life is not very successful.

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<sup>5</sup> Agnieszka Zakrzewska-Bielawska [red.], Podstawy zarządzania, Wydawnictwo Oficyna, Warszawa 2012, pp. 338-441.

The theory of resistance, according to which "change creates resistance," signals that workers counteract management actions that would restrict their choice of action. Managers of their activities cause active or passive resistance of employees if the interests of employees are violated. In the process of motivating, both sides interact<sup>6</sup>.

The shared goal theory states that people are highly motivated if they participate in setting goals together. Motivation is additionally increased when there is a good exchange of information between employees and the manager. When the degree of achievement of the goal is discussed, the accompanying circumstances, difficulties and ways to overcome them.

The theory of justice was developed by J. S. Adams. It assumes that motivation and connection with the organization are stronger when people believe that they are treated fairly and rewarded commensurate with the results of their work. It is just fair to reward people doing the same job of equal value and rewarding the best employees<sup>7</sup>.

Despite the differences, theories of motivation complement each other. Their assumptions remain valid and can be successfully applied in public administration conditions.

#### **4 Specificity of motivating in public administration**

In motivating public administration employees, it is important that the manager of a public institution gets to know the factors that motivate his subordinates. The mental state of the employee is of significant importance, expressed in the readiness to make a specific effort to achieve the organization's goals. The motivational system of public administration employees is based on hard and soft motivators.

The undoubted advantage of hard motivators is that they are noticeable and immediately bring about the desired effects. Providing a sense of security and stability, enabling the implementation of plans, job satisfaction, a variety of tasks that are soft motivators lead to long-term and stable motivation of the employee and

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<sup>6</sup> Alan Gick, Małgorzata Tarczyńska, *Motywowanie pracowników, PWE, Warszawa 1999*, pp. 111-112.

<sup>7</sup> *Op. Cit.* pp. 342-343.

eliminate dissatisfaction. Soft motivators, however, require time, their results are not visible immediately and it is more difficult to translate them into concrete, measurable effects.

In the Polish public administration environment, tough motivators include: seniority bonus, functional bonus, special bonus, jubilee award, additional annual salary, award for special achievements.

The seniority bonus amounts to 5% of the monthly salary and is paid monthly after 5 years of work. Each year of work, the bonus increases from 1 to 20 percent of the monthly base salary

The functional bonus is granted to employees employed in independent positions in connection with their function. Its rates range from 40 to 250% of the lowest national wage.

A special bonus is granted to the mayor of the city, the starost and the marshal of the voivodeship. It ranges from 20% to 50% of the basic salary and function allowance.

Additional annual remuneration, the so-called "Thirteen" is paid in the amount of 8.5% of the sum of remuneration for work received by the employee during the calendar year.

Financial rewards should be paid for outstanding professional achievements that go beyond the scope of normal duties.

The incentive tools typical for public administration include benefits paid from the Company Social Benefit Fund. Public administration entities are legally obliged to create such a fund. The most popular benefits of this type include:

- co-financing of holiday rest,
- subsidizing summer camps for employees' children,
- Christmas packages,
- benefits for random accidents,



- sports tickets,
- trips and integration meetings,
- preferential loans,
- group insurance.

Soft motivators in public administration include:

- sense of security and job stabilization,
- sense of realizing the social mission,
- job satisfaction,
- training and development opportunities
- recognition and prestige of the position held.

In the public administration employees' motivation system, it is important not only to know the motivating factors, but also those that have a demotivating effect. The most frequently mentioned demotivators are lack of positive support from management, lack of objectivity, unequal division of tasks, unfair distribution of rewards, favoritism, lack of trust, unclear scope of duties, lack of decision-making, bad atmosphere at work, holding back initiative.

The manager's lack of recognition and respect is one of the most important demotivators in public administration. Every employee has a desire to be appreciated. Improper behavior by a manager may result in disregard of duties and inaccurate performance of tasks by the employee. Employees want to be informed, especially about matters related to shaping working conditions, pay and promotions. Good and effective communication plays a vital role in human relationships. It aims to create conditions that encourage employees to express their thoughts, views and opinions as well as to present their own ideas and proposals. Good communication affects the atmosphere at work and mutual relations, which in consequence improves motivation and cooperation. Lack of effective communication, poor information flow or a complete lack of information negatively affects employee

motivation<sup>8</sup>. It can be assumed that this applies to any organization regardless of the sector and country of origin.

## 5 Summary

Creating an effective incentive system in public administration is not an easy task. When creating it, it is worth using the achievements of motivation theory. Understanding the needs of employees is crucial. It is also worth using a variety of motivational tools, both hard and soft. There is no doubt that it is worth trying to motivate public servants. This will translate into better work results and citizens' satisfaction.

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<sup>8</sup> Beata Hysa, Bożena Grabowska, System motywacji pracowników administracji publicznej na podstawie wybranej jednostki ZUS, Zeszyty naukowe Politechniki Śląskiej, Organizacja i zarządzanie, 2014, p. 326.

# DIGITAL TRANSFORMATION: OPPORTUNITIES & CHALLENGES

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**Abstract** The globalized world predetermines the digital development path of countries. Maintaining and strengthening the competitive advantages of national economies depend to a large extent on opportunities for digitalization-based transformation. A significant number of leading world studies explain the priorities, benefits and risks of the digital evolution of countries, the peculiarities of the formation and development of digital business in various fields. It is also important to determine the success factors of digital transformation processes. Successful examples of digitalization of the world's economies are based on strengthening the institutional environment, encouraging investment in digital enterprises, funding digital research and development, training IT professionals and using digital applications to create jobs, implementing measures to eliminate gender, ethnic and geographical inequalities in access to digital tools. Leading scientists and consultants have studied that the digitalization of the economy is mainly formed through the successful experience of digital transformations of companies. It depends on the ability of organizations to overcome the challenges of adapting business models to digital realities, digital upgrading of business processes and company culture, as well as further digital development of organizations in a competitive environment.

**Keywords:**  
digitalization,  
digital  
transformation,  
digital  
tools,  
adaptation,  
strategy

## 1 Introduction

Digital transformation determines one of the most relevant development trends. It causes changes in companies, industries, and society that require rapid adaptation, mobilization of significant resources, changes in skills and culture. At the same time, digitalization provides significant global and local competitive advantages for both companies and, consequently, for national economies.

Today's globalized development is largely the result of rapid change due to the spread of digital technologies, growth of information flows, ex and increased competition. Quarantine restrictions due to the pandemic situation have become an additional impetus for accelerating digitalization. Understanding digital technologies as various electronic tools, systems, devices, and resources that generate, store, or process data, it should be noted that they create many opportunities for traditional industries and economies. The Global Innovation Index proves that technology and innovation are the basis of economic growth, and the level of economic development directly depends on its innovation activity. Today such countries as the United States, Singapore, Denmark, Sweden, and others represent digital economies that have topped the list of digital competitiveness (Liu, 2020)]. At the same time, digital technologies pose certain threats to economies with limited financial and technological resources, such as Venezuela.

## 2 The future of digital economy

In 2018, the European Commission emphasized that the digital economy is the main source of growth, which will stimulate competition, investment and innovation, which will improve the quality of services, expand consumer choice, and create new jobs. In 2020, the Index of Digital Economy and Society summarized the relevant indicators of digital competitiveness and development of European countries (EU, 2020). Today, the European Commission emphasizes the need for digital transformation and presents a vision of its successful implementation in Europe for the next decade until 2030 (EU, 2021a & EU, 2021b). The EU's ambition is to have digital sovereignty in an open and interconnected world and to pursue a digital policy that will enable a sustainable and prosperous digital future for people and businesses in Europe.

## **2.1 Digital evolution**

In the United States, Deloitte consultants define the digital economy as an economic activity that results from billions of everyday Internet connections between people, business organizations, data devices, and processes. The basis of the digital economy is hyperconnection, which means the growing interconnectedness of people, organizations and machines, resulting from the use of the Internet, mobile technology and the Internet of Things (IoT) (Heath & Micallef, 2020). Ratings of economies' digitalization in different countries are a meaningful source of information for research. In our opinion, the Digital Intelligence Index, which has been studied by Fletcher School scientists for almost 10 years and is covered by the Harvard Business Review, is thorough (Chakravorti, Bhalla & Chaturvedi, 2017). Researchers of digital world evolution have analyzed the dynamics of four groups of factors in each country:

- 1) the degree of the digital environment development and physical infrastructure (supply factor);
- 2) the desire and ability of consumers to participate in the digital economy (demand factor);
- 3) the development of the components of the innovation ecosystem (innovation);
- 4) favorability of the legislative field for the digital economy development (institution).

According to the results of the analysis, scientists compiled and annually updated the map of countries on two indicators - the current state of digitalization in the country and its speed. The results of the countries' digitalization analysis allowed scientists to identify 4 zones in the map and, accordingly, to unite the countries into the following groups: digitalization leaders; slowing down; promising countries and problematic in the development of digital transformations (Chakravorti, Bhalla & Chaturvedi, 2017). The study confirmed, on the one hand, the significant interconnection between countries due to digital technologies, and on the other hand, identified the individual development priorities of each country (group of countries) belonging to different areas. A useful result of the 2020 study is an interactive simulator that can be used to investigate the current state of digitalization in some country, for example, Ukraine, and to compare with selected European

countries - Austria, Bulgaria, Finland and Germany (Fig. 1 and Fig. 2) (Digital Intelligence Index, 2020).

According to this specific comparison, it can be noted that the economy of Ukraine in comparison with these selected countries has an average result in 2020 due to the state of innovation, as the main driver of digitalization. However, in terms of supply, demand and institutional development, the result is much lower than average. Evidence of this situation is also indicated in the Ukraine 2030E (UIF, 2019) insufficient level of existing digital infrastructure and restrictions on Internet access, etc.

The index of digital evolution allows indicating the priorities of development of countries in different areas. Thus, for the area of promising countries, which includes Ukraine, it is necessary to improve mobile Internet access, strengthen the institutional environment and develop digital rules, attract investment in digital enterprises, more fund digital research, train digital talent and use digital applications to create jobs. Measures must also be taken to reduce inequities in access to digital tools across gender, class, ethnic and geographical boundaries.

Global Median: Calculated from the 90 economies in the DII.



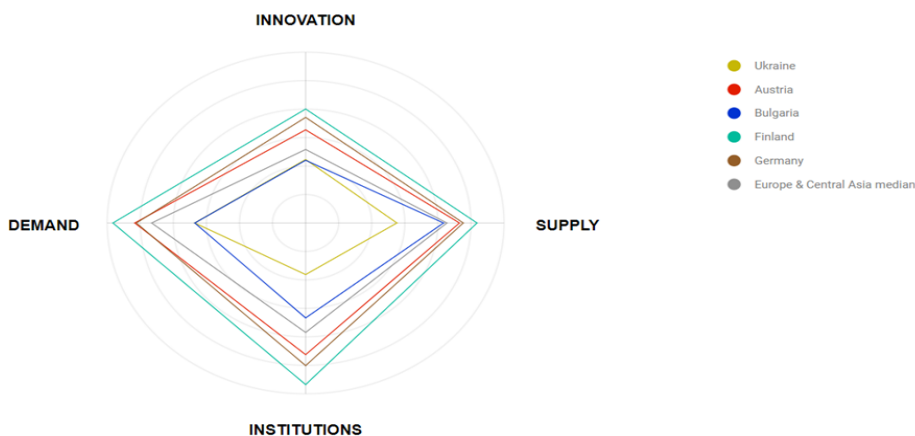
**Figure 1: Rating of selected European countries**

Source: Digital Intelligence Index (2020)

The acquisition of individual competitive advantages by a country in the process of digital transformation depends primarily on the degree of development of the basic components of the digital economy: digital infrastructure, e-business, and e-commerce.

The leaders in the success of digital intelligence are the United States, South Korea and Singapore. Therefore, the priorities of their development support for the introduction of digital consumer tools (e-commerce, digital payments, entertainment, etc.); involvement, training and retention of IT staff; promoting the development of digital startups; providing fast and generally possible access to the Internet - both wired and mobile; specialization in the export of digital goods, services and media; creating and coordinating the innovation process between universities, business and government.

Accordingly, countries with a slowing down in digitalization development are Australia, Sweden, Norway, etc. These countries have received guidance to prioritize investment in sound institutional frameworks and regulatory environment; use of policies, tools, and regulations for both access to digital capabilities and an adequate level of security and protection against cyber-attacks; identifying new technological niches for innovation, etc.



**Figure. 2: Key drivers of economic development in Europe, 2020**

Source: Digital Intelligence Index (2020)

That is, the transformation processes of digitalization in the economies of such countries have a relatively higher level of an existing development of institutions, innovation, demand and supply factors.

## 2.2 Opportunities & challenges

The challenges or opportunities for digital transformation depend on the digital potential of a particular country, its capabilities to flexible react to technological trends that determine the global digital progress in the next 5-10 years. Researchers from the consulting company Deloitte (Buchholz, Bechtel & Briggs, 2020) identified the following trends with the greatest potential impact on business and life in 2021.

1. Technological business strategy is optimized to create flexible management. Given the threats and opportunities of the external dynamic environment, strategic managers in organizations are constantly looking for new competitive advantages that should be used, as well as dangers that should be avoided. An increasing number of companies build competitive advantages by join new ecosystems with partners in order to propose combined innovative offers to consumers. Integrated corporate and technological strategy becomes a guarantee of organizational flexibility, stability and innovation. At the same time, the transition to a flexible process of strategic management of business units through the use of technological tools allows companies to regularly analyze, anticipate and monitor the effectiveness of strategy development and implementation.
2. New technologies, tools, and business cases are used to manage the company's modernization strategy. Technologies that have been actively evolving in recent decades and can be used by CIOs to transform companies' core processes include cloud storage and other modernization initiatives. They should become not only opportunities to improve the company's IT infrastructure, but also a solid foundation for technological innovation and competitive advantage.
3. Transformation of the traditional cost center into a cost driver. In the next few years, the supply chain of producers, retailers and other organizations is expected to be transformed against the background of the use of digital tools. The purpose of such changes is to optimize systems and processes in



organizations, in particular, the supply ecosystem, which will allow more efficient segmentation of customers, receiving signals about their needs and fluctuations in market demand, and respond accordingly. Such transformations will turn the traditional cost center into a network, which will help create new value.

4. Enhancing operational efficiency with industrial artificial intelligence (AI). Machine learning and artificial intelligence are increasingly able to enhance organizational activity through the efficient detection of patterns or threats, forecasting and generating ideas. However, many companies still use imperfect forms of AI, which constrains the ability to develop and manufacture products, and thus business management. Therefore, organizations should integrate AI and machine learning into every process and system for consistent and large-scale use. In this case, the operational and management efficiency of companies can be significantly increased.
5. Breaking the value chain of data management in the age of machine learning. As the era of artificial intelligence approaches, companies will be forced to radically change the value chain of data management using machine learning technology. This approach will allow rapid decision-making by reengineering the way they are collected, stored, and processed in the organization.
6. Strengthening security in the age of cyber threats. The "zero trust" cybersecurity model, that is, the lack of trust in anyone, makes it possible for more robust and reliable security for data, systems, and processes in an organization in today's environment. The advantages of this model are the creation of simple, modular environments, simple control, user access control. This model will allow increased efficiency against cyber threats compared to previous models.
7. Reloading the digital workplace. Most companies in the world have felt the need to move to a remote office model in times of quarantine. Some employees were convinced of higher efficiency and work-life balance working remotely. Therefore, in order to achieve their own business goals, organizations should combine online and offline work, create digital (equipped with digital technologies, tools, etc.) workplaces and create productive economically viable offices.

8. Merging digital and personalized. Personal communication, as well as digital one, has their advantages and disadvantages. Most consumers now want to benefit from both ways: personalized interactions along with the convenience of digital communication.
9. Diversity, equity, and inclusion as imperatives for staff work. Modern organizations use new and innovative technologies and tools to enhance fairness and inclusiveness towards employees during all stages of their stay in the organization, from finding and selecting talent to gaining experience, development, and compensation.

Such trends can become digital challenges for most countries of the world, which will create new opportunities if they are properly developed.

### **3 Conclusion**

Digital technologies allow engineers and scientists to structure, analyze, and evaluate vast amounts of data, create better products, and make design tools more efficient. Business benefits include local, secure data processing, shorter innovation cycles and greater flexibility, reduced time to market, investment protection, and low start-up barriers. Digital technologies allow a better understanding of customer behavior, reaching more clients, and increase their involvement in the business processes. Realization of digital capabilities creates an attractive customer experience through the power of core operations and business model upgrades. The main benefits of digital transformation come from the emergence of synergies between different subsystems, which lead to the creation of added value for the company and customers.

At the same time, digitalization is the source of challenges, including rising unemployment, digital inequality in different countries and regions, the emergence and intensification of cybercrime, rapid changes in state governance and companies.

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# SOLUTION SELLING IN B2B: PERCEPTION OF SOLUTION SELLING IN CHALLENGING TIMES OF MANAGEMENT, SALESPERSON AND CUSTOMERS

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**Abstract** Globalization and digitalization have yielded new challenges in the B2B sales environment. Besides positive also negative effects appeared in the last decades. Customer behaviour is becoming more complex, and the rivalry between the firms is getting more aggressive. Especially product-centred firms strive to fulfil their financial targets. The actual situation of COVID-19 amplify this situation. This new challenge entails firms and salespeople to find new resilient ways to survive and overcome crisis's and resist the rivalry of competitors. The present article is based on the theoretical and extant literature of solution selling and customer solutions in different industries. Potential effects on solution selling will be discussed and contributed through empirical interviews with people in a leadership position in sales. This article analyses the individual perception of related stakeholders in B2B sales and will provide valuable insights on solution selling concerning their resilient attribute. This present review will contribute scholars on the existing literature and firms which are seeking for methods to distinct from competitors and to overcome crisis 's. Finally, the gaps in the scientific literature will be discussed for further research.

**Keywords:**

B2B,  
solutions  
selling,  
sales  
performance,  
crises,  
recovery

## 1 Introduction

Sales has changed all the time over the years. The sales cycle on which the sales behaviour depends has changed more frequently in the recent decades. Globalization and new digitalization methods as well as the increasing complex customer behaviour brought salespeople in a challenging position (Saura et al., 2019).

Beside the increasing complexity in the sales environment also the economical complexity influences the sales behaviour. After the financial crisis in 2009, the economy is striving to survive the next crisis of COVID-19. Firms all over the world have to rethink their situation in the global market and try to find possibilities to recover fast from the crisis (Bond, 2020).

Through the globalization, firms were able to source their products from anywhere they want and resell it to other customer in the B2B environment. This is in general on the one hand an advantage but on the other hand for product-centred firms also a disadvantage.

Product-centred firms have less competitive advantage against companies which provide solutions. Such firms are mainly depending on the price of the product and are under the rivalry among existing competitors. These companies are getting more and more under pressure regarding margin and profitability (Reinartz & Ulaga, 2008).

To differentiate firms in the B2B environment, a possible workaround could be to transform the product-centred firm and especially salespeople to solution selling. Solution selling was recognized from scholars in the past and contributed that offering solutions result in increased return on sales (Worm et al., 2016). Existing literature on solution selling focusses mainly on the firm level (Koivuniemi, 2016). Scholars agree and argue that solution selling has top priority in B2B business and shall researched in depth (Guido, 2012). The actual market situation, in case of COVID-19, shows a reassessment of firms in general. In this aspect the competitive advantage will be a possibility to revive after the crisis. The first objective of this article is to analyse the extant literature in terms of solution selling. The second objective will be to gather empirical data to answer the research question. The

mentioned problem statement above leads to the research question which will be answered through the present paper.

Could solution selling help firms to be more resilient against crises?

The comprehensive review of the literature focus on solution selling and customer solutions in the context of B2B sales. The article examines the existing literature and contribute the findings with an empirical analysis. The author interviewed six individuals in a leadership position of salespeople. A non-target of this work was to perform a longitudinal analysis.

Finally, it will give potential approaches to the findings from the literature and provide theoretical concepts for further research.

## **2 Literature review**

In the first step the author searched about “solution selling” and “customer solutions” from the extant literature. Therefore, a general research was done through the databases ABI/Inform, Google Scholar, ELSEVIER, EMERALD, SAGE and Springer. In the second term the author refined the search through a combination of search terms. This will be resulted to systematically findings on articles depending to the actual topic of solution selling.

Following to the first step the author evolved the different definitions for solution selling. Therefore, the author reviewed the extant literature about definitions. Definitions vary slightly, but the main message which comprise all definitions are properties like: individuality, complexity, integrity and interactivity. According these key words the main definition of solution selling could understood as follows: Solutions are individual activities to solve complex request from a customer through interactive adaption of a salesperson which creates an integrative additional value (Ahlert 2008).

Based on the literature definition as well as the review of 43 articles the author evolved 9 categories which will be in relation of solution selling. Within these elaborated categories the author establishes detailed questions regarding crises as well as difficult economic cycles.

### **3 Methods**

These evolved questions were used for an empirical in-depth interview with six experts based on the concept of expert interviews (Wassermann, 2015). According Schütz (1972), an expert is a person with a profound knowledge about a specific area in his business. In the B2B context the salespersons could have two positions. On the one hand they are primarily the sales for the own company they work for but in case that they receive products from others, they could be seen as customers too. The author has an international network and contacted therefore different experts in different industries. To get also independent interviewees from Austria the author contacted an Austrian platform for salespersons. This institution is present in Austria as well as in Hungary and act as a consultant for firms in case of sales topics. Through the platform we conducted 10 salespersons. The resonance for an interview was given from two Austrian managers. In total the author attained so 6 interviewees which possess extensive customer experience. The interviewees are located in following countries: Austria (2x), Germany, Romania, UAE and US and work within the field of: Oil&Gas, Energy Sector, Construction Industry, Certification of products, Business Consultant and Process Industry.

The in-depths interview questionnaire comprises following categories: Demographic, General Topics, Product & Service, Customer, Sales Representative, Organization, Colleagues, Sales Performance and Education. All categories include five questions which are formulated as an open question. The open questions were constructed from the author, but the style of the question was used in dependence to the article of Krosnick (2018).

### **4 Results and analysis**

The in-depth interviews unveil important insights about the actual situation in different industries. This article was established almost one year after COVID-19 appears and reflect the perception of the sales environment.



#### **4.1 Demographic questions**

In this section the author asks the interviewees for general information about their age, profession or obtained degrees. Most of the leaderships have additionally a sales position. On the one hand they have to take care about their salespeople and on the other hand they have to fulfil management targets. Their yearly turnover target is varying from € 1Mio up to over € 7 Mio. The interviewees have a good representative and are between 20 and 60 years old. The education is consistently high which represents and university degree. On the question which degree they have obtained, the author selected the interviewees with an evident mixture of technical and business degrees. The gender is may not fully representative in case that all interviewees are males.

#### **4.2 General topic of solution selling**

In the next category the interviewees were asked about their general knowledge about solution selling and the attitude related to the topic. These questions were asked in closed ones that means the answer could even be yes or no. Most of the interviewees confirmed to know basics about solution selling. They confirmed also that they use a kind of patterns of solutions selling in their daily business. Important to mention thereby is that the knowledge is more scratching on the surface than keeping profound background about this wide topic of solutions. Regarding the recovery in difficult economic situations, all of them except one respondent say that it is difficult to recover in their business and with their products.

#### **4.3 Product and service**

All interviewees have acknowledged that crises influence their product sales and business behaviour. The positive effect is that there is an opportunity to adapt their products or service to gain additional value for their customers. This is independent from the complexity of the product or service itself whereby five of the interviewees answered that their product is complex. To attain the customers attention all interviewee uses multiple channels to explain their products. Online channels are used to inform about instructions, videos or other features of a product. Nevertheless, the personal contact is utmost important to get trust from the customers and convince them on the product or service.

#### **4.4 Customer**

The communication with the customer has transferred more and more into digital technologies. Online communication is supporting to have access at any time and at any place, but to develop solutions the personal contact is indispensable. To evolve solutions, it is necessary to exchange ideas and concepts face to face. Many interviewees see that similar products are also available on the market. To keep ahead from the competitor, it is necessary to modify the product or service in any direction. If not, it would be only a differentiation in regards of the product price.

Decisions on the customer side will be taken through “Decision Making Units” (DMU). The interviewees argue that it is necessary to establish a partnership through different levels of the organization. Beside the relationship to the DMU, it is also necessary to understand the product or facility of your customer. The interviewees outlined that it is crucial to know the purpose of your customers application to establish a solution. They also confirmed that the customer would appreciate solutions which will end in a value-added product for both parties and underpins the importance of solution selling, specially to recover fast from difficult economic situation.

#### **4.5 Sales representative**

The actual situation of COVID-19 brought a new live in the sales behaviour. No personal appointments are possible, so meetings switched to nearly 100% into online meetings. At the beginning of the COVID-19 the situation was new for everyone, but within one year in home office and several lock downs the sales representative needs motivation and support from management to overcome this tough situation. The interviewees confirmed that their salesreps want to learn more about solutions selling. They think that if they knew more about solutions and use them in their daily business, it could help to attain their targets and may improve their sales performance. Adverse to the benefits, the sales representative will have to manage a higher risk if they use solution selling. This risk is in relation with the critical factors of the interviewees and may of importance for further research. The most critical factors which the interviewees see for their sales representatives are time, risk and knowledge.

#### **4.6 Company**

Companies which are set up product-centred, have difficult times in case of a crises. All of them confirmed, if there would be more diversity in their products or service it would be easier to recover. This implicates that the management has to invest in solutions, but deployment cost could prone the implementation. In this relation all the interviewees mentioned that on a long term, solution selling will increase the total performance of a firm. On the question, what a firm makes valuable, they answered in two ways. First, firms have patents on their product that means that a portion of the valuableness lay on the product itself. The more significant answer was, that the individuals of a firm which create ideas and passion are the most valuable factor of a firm. This supports the finding of the author from the literature.

In the literature there exists a gap in solution selling of individuals. Seen from the interview and the literature they are important to implement solution selling in a firm (Panagopoulos et al., 2017).

#### **4.7 Colleagues**

To get and better insight regarding the individuals, the interviewees were asked about their perception of the colleagues. Crises in general bring uncertainty which demotivate the people in a certain way. Important is to provide a positive outlook and motivation from the management. Most of the interviewees mentioned, that their colleagues are in general interested in solutions. The more people are involved in the value chain the easier it is to implement solutions selling in the organization. Salespeople are always depending on people from nonsales, this will contribute the team performance and could end in a better firm performance. Seen from this aspect, the interviewees confirmed that it is necessary to involve the nonsales into the value chain and attain customer experience.

#### **4.8 Sales Performance**

The performance topic is researched from scholars in the literature and is positive related if the firm trust on solution selling (Panagopoulos, 2017). The same feedback was received when the author was asking the interviewees. All of them argued, that on a long run, the performance will be higher or the recovery from the crisis will be

faster. On the question if solution selling shall be a Key Performance Indicator (KPI), the answers differ from interview to interview. This is a complex task, in case that normally the KPI's are related to pure figures. In terms of solutions, they have to consider additional soft parameters like relationship to the customer, potential savings, additional sales volume and others. The interesting finding on that topic is, that all of them could envision that in the future a KPI consists also on soft facts and not only on hard facts. This shall be kept in mind of scholars for further investigations on KPI's. Regarding the long run and performance increase, the interviewees stated, that it is always a up and down, especially in the industry sector where firms are depending on projects which will be supported by governmental incentives. However, if a firm adapts their products and service continuously the performance could be a cumulative sine wave.

#### **4.9 Education**

In the perspective of education, a crisis will be seen as a motivator. Many interviewees think to learn from the actual situation to be prepared for the next one. Education in solution selling is also seen differently. Some of interviewees say that they will need more training on sales management and will gain solutions through customer experience. Others argue that they want to learn more about solution selling from the professional side. This shows that the understanding of solution selling must be clarified and communicated from the management to the sales. All the interviewees acknowledge that education will have a positive effect on their sales. In general, education will be a sustainable factor in the business environment and is not depending on a specific industry and shall be implemented in every company as lifelong learning process.

### **5 Discussion**

Solution offering was recognized from scholars in the past and researched in a broad way through different industries. The gap of solution selling in B2B is seen important for scholars and practioners especially in times where the economy will be unpredictable (Uлага & Kohli, 2018; Worm et al., 2017). Bond et al. (2020) analysed the impact of COVID-19 in relation to solution selling. Therefore, he raised seven topics which could guide practioners but also academics to adjust their strategy in case of solution selling on the organization level. His article is related to the literature

and do not show evidence in case of quality interviews of managers or sales representatives.

The present article contributes the actual literature and fit in a gap of solution selling which could help firms to create more resilient and sustainable sales strategies in difficult economic times. The in-depth interviews reveal unique insight in the sales environment of six international sales managers. Many companies have worries and ask themselves, how to recover from critical situations. The interviews show, that many companies are aware of the importance of solution selling or customer solutions. However, this is more scratching on the surface than using profound knowledge. These findings outline that the management is requested to provide the right environment for sales to act on solution selling. The author evolved the most depending factors which are time, risk and knowledge. It shows that beside the interest in solution selling of both organization and individual level, these factors will need investigation into the individual salesperson.

The critical factor of time was also recognised from Zoltners et al. (2010), who found out that only a third of the working time is used for pure sales activities. To create solutions for the customer the sales representative need time to attain the decision makers as well as the people behind the customer organization. Furthermore, the salesperson needs more time to understand the customers' needs and work in a partnership with the customer on a long-term strategy.

In relation to the product, the majority answered that their product or service could be adapted in any way to provide a customer value. The finding shows, that from the product or service point of view the companies have great potential to create customer value and implement customer solutions. In times of digitalization these solutions could easily presented and communicated. The potential is in the most cases present but must be revealed by the management. The empiric findings give evidence on the research of Salonen et al. (2020), who stated that people have to be engaged for solution selling. This engagement for solution selling could also help to motivate salespeople in difficult times of economic crises. As the interviewees argued that over a longer period the motivation declines, the knowledge of solution selling could help to overcome and recover faster from the situation.

## 6 Conclusion

This paper discusses the basics of solution selling in a B2B environment in relation to unpredictable market situations. In detail, the paper gives unique insights on possible resilient factors of firms which could help to overcome crises in better way or to recover faster. This was possible by interviewing six international salespersons through in-depth interviews. This empirical paper increases the evidence that solution selling will have a positive long-term influence on the firm performance. In case of unpredictable market situations, the author evolved relevant factors like time, risk and knowledge which influences sales performance. Successful implementation of solution selling shall therefore consider resources and capabilities as customer expertise, knowledge and education.

Beside the findings there are also limitation to mention. The author note that the number of interviewees is too less to provide and general statement on solution selling. Further research shall be done through a survey and dedicated to specific industries. It could be also good to repeat these interviews after COVID-19 to compare the answers and perception of the interviewees.

Beyond the organization level changings which was recognized from the interviews, the contribution to academic literature is that the salespeople contain a big potential for solution selling. These findings support the extant literature which mainly focuses on the organization level (Panagopoulos, 2017). In general, the solution selling method is interesting for scholars and practioners. Form the empirical research, the author got evidence that further research shall be done to evolve the factors of solution selling on indivual salesperson level. This will contribute the sales environment for the next sales generation which drive new ideas in sales and will help to close sales deals for their firms.

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# DESIGN AND CONCEPTION OF ONLINE EXAMS WITH STANDARD SOFTWARE IN SOCIAL SCIENCE COURSES

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**Abstract** The 2020-2021 Coronavirus pandemic has had a significant impact on teaching worldwide, prompting a mass conversion to online instruction. Universities have been greatly impacted by this. While the conversion of classic in-person, presence-based teaching formats, such as lectures and seminars, to online teaching went relatively smoothly, written exams still represent a particular challenge. Due to the nature of online instruction, it would be helpful to have online exams that can be taken from any location. The goal of the QLU-eQuiz-Project is to use standard software to create a testing environment in which university examinees can take online exams. This is not just a technical stopgap solution to the current, pressing problems of conducting examinations online during the pandemic; the project also aims to address future development toward hybrid forms, focusing on exams for social science courses – specifically, here, courses in Logistics and Business Administration. Furthermore, the project seeks to identify problems that can occur in the context of online exams and to discuss proposed solutions. For this, a series of mock and "real" online exams were conducted as QLU-eQuiz exams, both with smaller and larger groups. Part of the project compares grades on online exams with previous in-person exams.

**Keywords:**

exam  
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## 1 Introduction

At the Ludwigshafen University of Business and Society, it was decided not to hold any in-person exams during the 2020/21 winter semester due to the Coronavirus pandemic. This decision was in line with practices at most other German universities. The Senate of the Ludwigshafen University of Business and Society passed a resolution to this effect on December 16, 2020. Alternatives to in-person, written exams were specified, including oral exams, homework, open book exams, and online exams. Due to the high number of participants needing to take written exams, it was decided to develop a software solution for online exams, which was called “QLU-eQuiz”.

Universities use a wide variety of exam types for assessment. For the purposes of this paper, two types of exams are differentiated. First, there are “paper and pencil exams” (PP-LR), which are usually taken in-person on university premises: these are considered the “classic” exam format. Second, there are online exams, which are taken in private, online settings (OL-AH): these represent a new method of taking written exams (Fischer & Dieterich, 2021; Ilgaz & Adanir, 2019; McLaren & Reilly & Uhomobhi, 2019).

With online exams, the examinee finds a private space, usually at home, to complete the exam. The exam itself is made available via a computer application. Since the Internet is usually used for this purpose, it is generally referred to as “online exams.” Additional video conferencing software is required in order to supervise examinees and to carry out identity checks online. Due to particularities of the online exam format, it is especially important to prevent cheating, e.g. through the unauthorized use of telephones or documents such as books or course materials (Fask & Englander & Wang, 2014). The process of monitoring of online exams is henceforth referred to as “proctoring” (Schlüter, 2021). There are numerous academic discussions on proctoring, focusing mainly on legal aspects (Albrecht & McGrath & Uphues, 2021; Bredow & Fokken & Haug & Himmelrath & Preker, 2021; Deutscher Hochschul Verband, 2021; Schwartzmann, R. 2021; Yousef, A. & Chen & Liu & Hsu & Liu, 2015). These discussions, however, are beyond the scope of this paper.

The software programs were selected for various reasons, including the availability of appropriate university licenses and the authors’ solid experience with and

knowledge of software application and programming. Furthermore, there were already preliminary experimental tests that had provided students with support in completing practice exercises with self-programmed applications. The software programs used included Microsoft Word (word processing), Microsoft Excel (spreadsheet), Microsoft Outlook (email), Qualtrics (online surveys) and Zoom (video conferencing).

## **2 The QLU-eQuiz Project**

Within the framework of the QLU-eQuiz-Project, numerous tasks had to be completed, which can be categorized in the stages of preparation, implementation, and evaluation.

### **2.1 Preparation**

The starting point for the use of the QLU-eQuiz in the 2020/21 winter semester were exams that were “classically” designed as PP-LR and were already printed out and ready to be copied for the upcoming examination period. After in-person exams were cancelled, the challenge facing university staff was to convert these PP-LR exams to OL-AH in such a way that all participants, especially examinees, would not be disadvantaged in any way by this form of exam. In the following, the steps taken to conduct the QLU-eQuiz are briefly described.

The work entailed in transferring multiple choice questions into the QLU-eQuiz was relatively straightforward, as a proven software-based solution was already available for this purpose, which is also used for PP-LR. Multiple-choice questions are stored in Excel tables, which are then transferred to Word for designing and printing the PP-LR. The copy & paste function can be used to import these questions into a Qualtrics script. Although Qualtrics has its own scoring model for multiple choice questions, it was not used. The Qualtrics feature of randomly displaying multiple choice questions was used, which allowed each examinee to be shown the questions in random order (selected by Qualtrics). Randomizing the order of questions makes it more difficult to cheat, as examinees cannot compare what answer they chose for Question 1 because Question 1 has different content for each examinee. An example of this would be examinees sharing “Q1,2,3” as an abbreviation for “Question 1,

correct answers 2 and 3." Due to the randomized presentation of questions, cheating becomes much more complicated, if not downright impossible.

Excel tables were also used for designing calculation exercises, but a number of adaptations and extensions were necessary. Only the issue of "task variations" should be mentioned here. In order to prevent attempts at cheating by communicating solutions for the calculation exercises, the tasks in Excel were redesigned in such a way that a whole set of variations was created for each calculation question. This means that the specifications (numerical values) for a calculation task were automatically varied within a given range, thus resulting in different solutions. By default, ten different exam variations were created and randomly assigned to examinees during a later process. In this respect, QLU-eQuiz exams can be considered personalized exams.

The following graphic shows a screenshot of a QLU calculation task. In the upper-left corner of the screen is the selection menu with all the questions to be completed in the exam. To the right is the text of the exam question with the personalized information (numerical values). At the bottom of the screen are the input fields for calculating the solutions to the exercise.

**Hauptmenü**

- Sektion01-Multiple Choice
- Sektion02-Rentabilität: ROI
- Sektion03-Wirtschaftlichkeit: Margepackung
- Sektion04-Crepe**
- Sektion05-Liquidität
- Antworten-Check
- Ende

**Bitte benutzen Sie das Template "Bf-Crepe"**

a) Zur Finanzierung Ihres Studiums planen Sie einen Crepe-Stand für das Brezefest in Speyer. Die Eckdaten lauten:

- Erlös pro Crepe: 3,00 €
- Variable Kosten pro Crepe: 0,50 €
- Fixkosten: 5.000,00 €

Berechnen Sie bitte für a) die Break-even-Menge!

b) Leider ändern sich ein paar Rahmenbedingungen:

- der Erlös pro Crepe sinkt um: -10,00 %
- die variablen Kosten pro Crepe steigen um: 10,00 %
- die Fixkosten steigen um: 20,00 %

Berechnen Sie bitte für b) die neue Break-even-Menge!

Hinweis: Rechnen Sie bitte mit zwei Nachkommastellen und tragen Sie die Lösung als Zahl mit höchstens zwei Nachkommastellen ein!

**Wichtiger Hinweis: Bitte geben Sie nur Ziffern ein und zwar ohne zusätzliche Angaben wie Euro, %, etc.!**

I-B-020: a) Break-even-Menge (in Stück):

I-B-021: b) Neue Break-even-Menge (in Stück):

**Figure 1: Screenshot of a QLU-eQuiz calculation task**

Source: Author's illustration

After importing the Excel data into Qualtrics, the task was to program a Qualtrics script for each exam. This does not require any programming knowledge, as Qualtrics is designed to be operated very intuitively, with a user-friendly (“no-code”) approach. Due to time pressure, the types of Qualtrics questions used was limited to the variants “Multiple Choice” and “Text Input with Form Fields” as well as “Select, Group and Arrange” with the “Drag & Drop” function.

## **2.2 Implementation**

The QLU-eQuiz-Project was based on various courses from the curriculum of the Bachelor's degree programs in Logistics and General Business Administration as well as the Master's degree program in Logistics in the Department of Services and Consulting at the Ludwigshafen University of Business and Society. Specifically, the QLU-eQuiz-Project was used to conduct six online exams with a total of 475 participants. The largest numbers of participants were in the exams for Cost Accounting, with 171 examinees, and General Business Administration (ABWL), with 153 examinees.

The implementation of a QLU-eQuiz exam is divided into two parts. The first part includes the completion of the online exam by examinees, i.e. accessing and solving the exam questions, as well as recording the solutions. The second part includes exam supervision by university staff (proctoring).

Mock exams were administered to practice both components of the QLU-eQuiz exam for respective course participants. These mock exams, which took place during lectures, were designed for a duration of 30 minutes and offered students not only the opportunity to familiarize themselves with the QLU-eQuiz and the other framework conditions of an OL-AH, but also provide examinees a chance to check their performance. Thanks to the largely automated grading of such exams, students receive their results by email in a timely manner. This message contains sample solutions in addition to the actual grading. Accordingly, if examinees get questions wrong, they can identify potential gaps in their understanding of course material and use the sample solutions in order to better prepare for the “real” exam.

The QLU-eQuiz exam is initiated with an invitation link sent by email to exam participants in advance of the upcoming exam. After entering a password, participants receive access to the QLU-eQuiz exam.

Participants can choose the order in which they complete exam questions. In the case of multiple-choice questions, examinees simply select solutions by clicking on selection boxes. For calculation tasks, participants follow a procedure in which they transfer the information from the screen to so-called templates that have been printed out beforehand; alternatively, blank paper can be used. Examinees should concentrate on solving the questions and transfer the results into the corresponding response fields of the Qualtrics script.

In the Qualtrics selection menu there is a menu item that allows users to show all entered responses in an overview display. Corrections are possible at any time during the exam period. When the time period for the exam ends, the participants are asked to end the QLU-eQuiz exam. This is performed by the examinee, who selects the appropriate menu item and then confirms that he/she wants to end the exam. Afterwards, the participant receives an email with a message that they have successfully completed the exam.

The following table presents an overview of QLU-eQuiz exams conducted in the 2020/21 winter semester:

**Table 1: QLU-eQuiz exams**

Subject (degree program)	Number of participants	Exam duration (min.)	Number of multiple choice questions (MC)	Number of calculation tasks (CALC) (number of solution fields)	Number "Drag & Drop"
Cost accounting (BA)	171	30	8	2 (5)	-
General business administration (BA)	153	60	13	4 (10)	-
General business administration (BA)	83	60	13	4 (8)	-
Distribution logistics (BA)	24	30	7	2 (5)	-
Technologies and drive concepts in transport logistics (MA)	22	30	15	-	-
Quality management (BA)	22	30	6	1 (2)	2
<b><math>\Sigma</math> 475</b>					

Source: Author's illustration

### 2.3 Evaluation

After the end of the exam, the data sets generated by Qualtrics can be exported as Excel files and used for evaluation purposes. In the first step, raw data sets are validated using Excel to check for the completeness of formal data and exam responses. In the next step, student responses to multiple-choice questions and the calculation-based questions are evaluated. In the final step, responses are scored in order to calculate point values for the exams. Already at the beginning of the project, it was clear that a separate grading process should not be programmed for each exam. The evaluation module of the QLU-eQuiz-Project currently grades a maximum of 20 multiple choice questions and ten solution fields, and an extension would be easy to program.

An obstacle hindering the development of a fully automated process for exam correction is the fact that examinees' responses do not always exactly conform to exam instructions (e.g. inputting solutions "as a whole number without decimal places"). The variety of forms that responses can take is displayed in the follow table: the "Entry" column shows the original responses from QLU-eQuiz participants, which were entered as the solutions to calculation-based questions. Due to the "ingenuity" of the examinees and their unstandardized responses (which sometimes deviate from exam instructions), manual correction by exam graders may still be necessary even with "standardized" online exams.

**Table 2: Types of problematic exam responses**

Entry	Problem description	Automatic correction	Manual correction	Corrected entry
10.35	Decimal point instead of decimal comma	yes	no	10,35
5.200,00	Thousands separator and decimal point	no	yes	5200
2/3	Fraction instead of percentage	no	yes	0,66
20.45%	Thousands separator and special characters	no	yes	20,45
,5	Decimal number instead of percentage	no	yes	50
3906.998168	Decimal point and more decimal places than required	no	yes	3906,99
5696,55 (ganze Stück: 5697)	Mix of values and text	no	yes	5697

Source: Own illustration

A simple solution to this problem would be to provide correct solutions for calculation-based questions, e.g. a percentage, in the form of a multiple-choice question with four possible answers in which three percentages are wrong and one is correct. The clear advantage to this approach is that exam correction can be easily automated, similar to a "normal" multiple-choice question. The disadvantage of this approach, however, is that the participants can also guess the correct solution and



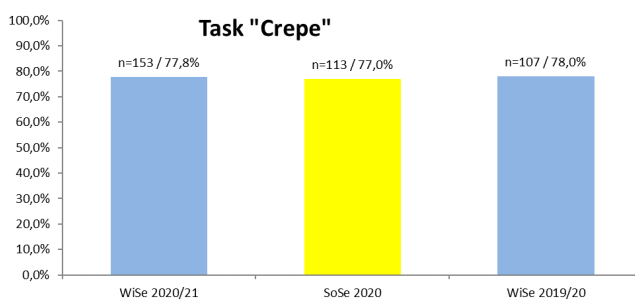
do not necessarily generate the answer on their own. Another issue is whether converting these responses to multiple-choice questions would exceed the proportion of points from multiple-choice questions permitted in written exams. Exam regulations at the Ludwigshafen University of Business and Society, for example, limit the proportion of multiple choice questions to 50 percent of the total points achievable in an exam.

Another possible solution to these issues is to highlight incorrect entries when the student formulates their response using a Qualtrics script that prompts them to edit their response with the proper format. This approach will soon be tested.

## 2.4 Initial evaluation of the QLU-eQuiz

Detailed exam results are not listed. In comparison to the exams from the previous semester, better grades were achieved in each case. It should be noted that the grades and comparisons of results are subject to the special circumstances in which the exams took place: due to the general burdens of the pandemic, lecturers tended to avoid giving very difficult exams in order to avoid further stressing students. Shortened exam times was another factor here.

Individual responses were compared to verify whether the online format disadvantaged students in any way (DeSouza & Fleming, 2003). In order to make a proper comparison, the respective questions in the PP-LR and QLU-eQuiz exams had to be identical. For the exam question “Crepe,” which fulfills this prerequisite, the following picture emerges:



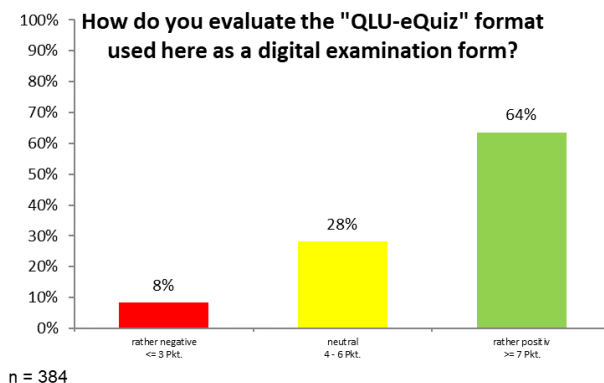
**Figure 1: Comparison for exam question “Crepe”**

Source: Author’s illustration

In the figure above, the number of participants ( $n=$ ) and average grades in % for the exam question “Crepe” of the last three ABWL exams are plotted. The average grade is calculated as the ratio of the points achieved by all participants to the maximum number of points available. As the figure clearly illustrates, the average grade from the QLU-eQuiz exam during the 2020/21 winter semester is at the same level as the two previous exams, which were written as PP-LR in a shortened version (SoSe 2020, exam duration 60 minutes) and under normal conditions (WiSe2019/20, exam duration 120 minutes).

The easily accessible and widely available data from online exams can thus be used in the context of “exam controlling” to investigate, for instance, the extent to which the form or presentation of a question in an online exam can potentially disadvantage exam participants.

Overall, examinees gave positive feedback on the suitability of the digital QLU-eQuiz exam format.



**Figure 2: User Feedback**

Source: Author's illustration

Of the responses ( $n=384$ ) to this question collected immediately after completing the QLU-eQuiz exam, nearly two-thirds of examinees rated the exam format as “suitable” or “very suitable.”

### 3 Conclusions

Implementing the exams planned for the 2020/21 semester took place under enormous time pressure: the focus of the QLU-eQuiz-Project was therefore to provide a viable, functioning online exam system – and this goal was achieved.

The potential of the QLU-eQuiz project is not limited to conducting online examinations at home (OL-AH). In the context of a multi-phased approach, this approach can also be applied to a future teaching and learning concept. The first phase consists of offering practice exercises in digital form using Qualtrics scripts during the lecture period (Schmeeckle, 2003). The second phase consists of conducting a mock exam during the lecture period. Thanks to the largely automated grading process, both students and the instructor can receive timely feedback on course performance (Enders & Gaschler & Kubik, 2021). Based on this information, instructors can carry out more targeted interventions to enhance student learning, which may also help to alleviate test anxiety (Dickhäuser & Dickhäuser, 2020). The third phase consists of conducting the actual QLU-eQuiz exam, as described in detail here.

It should be noted that this exam format can be used in a variety of contexts beyond OL-AH. It could also, for instance, be used on site at universities, whether in campus computer labs (with Internet access), or as a “Bring Your Own Device” exam (BYOD exam) where students bring their laptops or tablets and complete the exams online but in physically present in a university lecture hall (with Wifi). This also forecloses the possibility of conducting “hybrid” exams, which are written in parallel at the university, e.g. as PP-LR or BYOD exams, and as OL-AH.

In the fourth and final phase, the instructor offers a “digital” exam review. The procedure is in principle similar to a QLU-eQuiz exam, but here the examinee sees their responses to the exam questions on the screen alongside the corresponding sample solutions. Ideally, the exam review takes place in the following semester in the context of a lecture during which the lecturer can immediately answer questions from exam participants. For the topic of a digital exam review, it seems to be true that supply creates demand. The following table shows the registrations for the exam review of the exams written in the 2020/21 winter semester and one sees that nearly half of the students (48.8 %) participating a QLU-eQuiz registered for the exam

review. However, the experience of the examinations carried out so far also shows that there are sometimes high no-show rates here.

**Table 3: Digital exam review**

Subject (degree program)	Number of participants	Registrations for exam review	Registration rate	Actual number of participants at the digital exam review	No-show rate
Cost accounting (BA)	171	75	43.9 %	scheduled	-
General business administration (BA)	153	77	50.3 %	scheduled	-
General business administration (BA)	83	38	45.8 %	scheduled	-
Distribution logistics (BA)	24	13	54.2 %	11	15.4 %
Technologies and drive concepts in transport logistics (MA)	22	16	72.7 %	7	56.3 %
Quality management (BA)	22	13	59.1 %	8	38.5 %
	$\Sigma$ 475	$\Sigma$ 232	$\bar{\emptyset}$ 48.8 %		

Source: Author's illustration

#### 4 Future outlook

Looking forward, the first hypothesis here for future research is that by applying the multi-phase QLU-eQuiz concept, it will be possible to significantly increase the average grade in the ABWL lecture exam (which has been steadily decreasing over the last years) without actually lowering the demands of the lecture or exam.

Given the promise of online exams to reduce the time and effort required for exam corrections with automatic grading (Becker & Weidt, 2017), a second research hypothesis can be formulated as such: using QLU-eQuiz exams should make it possible to significantly increase the efficiency of conducting exams compared to “classic” PP-LR. This profitability analysis refers to the stakeholders, including the organization (university), lecturers, and students, as well as environmental considerations (CO<sub>2</sub> footprint).

Furthermore, we will also investigate how the evaluation of the practice questions (Phase 1) and mock exams (Phase 2) helps the instructor to formulate effective interventions during the current semester to improve student learning in advance of the final exam.

Due to the current pandemic situation (as of April 2021) and the expected development, it is foreseeable that a series of examinations in the QLU-eQuiz format will also take place at Ludwigshafen University in the summer semester of 2021. This second exam cycle will be used to make further progress on the “learning curve”. This concerns on the one hand the workflow for the organization of the four phases of the QLU-eQuiz concept and on the other hand software improvements, e.g. the interception of input errors. Furthermore, it is considered to extend the field of application to other departments or universities and to offer exams as “Exam as a Service (EaaS)”. In a first step, exams would be offered that are very similar to the exams described here and consist of multiple choice and calculation tasks. The conception of the QLU-eQuiz allows a location-independent use, since the conditions for participation consist only in the receipt of emails and a (as stable as possible) Internet connection. For the implementation of multilingual solutions different options can be considered. At present, the offer of multilingual (German/English) examinations is already being tested using the “Translate survey” feature from Qualtrics. With this feature it is possible to add multiple languages to a single survey and therefore participants can view the survey in their personal preferred language. Against the backdrop of increasing internationalization of science and research (BMBF, 2019), offering multilingual online surveys could make another contribution.

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# DIGITAL TRANSFORMATIONS AND THE CHALLENGES OF HIGHER EDUCATION INSTITUTIONS

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**Abstract** This work aims to identify the challenges of Higher Education Institutions against the increasing digitalization. The first part of the work reviews Industry 4.0, analyses recent scientific works to demonstrate how the technological changes and especially the development of Information and Communication Technologies causes the future of jobs. Fourth Industrial Revolution creates the general foundation for the activities of nowadays; the platform economy is gaining strength; digital transformation with the advent of big data, digital literacy, and data literacy is becoming increasingly essential. To prepare students for their future work is the direct responsibility of Higher Education Institutions. The second part of this work is devoted to the challenges of the education system, focusing on the Higher Education Institutions. Desk research is conducted to analyze what changes will bring the ongoing process and how these institutions should respond to the challenges of digitalization. The contribution of this paper is to develop the conceptual design of responding measures to the digitalization taken by Higher Education Institutions.

**Keywords:**

industry 4.0,  
digital  
transformations,  
higher  
education  
institutions,  
future of  
jobs,  
ICTs

## 1 Introduction

In the era of technological changes, the accumulation of knowledge and the development of skills that will be adapted and in-demand to the conditions of such changes have acquired special importance. Technological advances have made significant progress in information and communication technologies (ICTs).

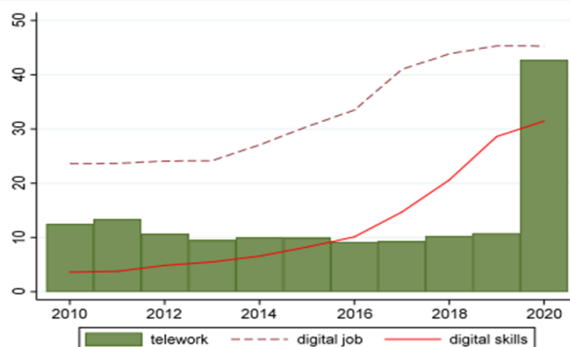
Digital technologies that have computer hardware, software, and networks at their core are not new, but in a break with the third industrial revolution, they are becoming more sophisticated and integrated and are, as a result, transforming societies and the global economy (Schwab, 2016).

The creation of a global information space, access to resources and financial resources needed to make use of this space has become a prerequisite for a long-term competitive advantage at both macro and micro levels.

Based on the analysis of the demand for new skills over the last two decades, it is clear that the most in-demand focus is on digital skills. The analysis of various aspects of a new reality driven by the formation of platform economics has revealed the particular challenges facing the education system. Digital transformation and with the advent of big data, digital literacy and data literacy are becoming increasingly essential; it is evident that global networks are becoming the platforms for new jobs and the acquisition and development of new skills should be accelerated (Papachashvili, 2020).

The pandemic has generated additional disruptive changes in the labor markets. Fig 1 clearly shows the rapid growth in digital skills or digital jobs. ILO revealed an increasing trend in the interest in digital jobs and digital skills in the last decade, and a gap between digital jobs and digital skills as labor and educational markets evolve at different speeds. The latter is usually slower (ILO, 2020).





**Figure 1: Google trends search for “digital jobs”, “digital skills” and “telework”**

Source: ILO, 2020.

Researchers rightly point out that the study of the impact of digital transformations on the institutions of higher education needs to be further deepened in conceptual and methodological terms (Benavides et al., 2020). Although a number of articles have been published before the pandemic and in the pandemic almost all countries were forced to switch to distance learning, which is one of the challenges, and later to hybrid learning in some countries, this only indicates the need to accelerate digitalization and does not change the overall picture. It should be mentioned that these issues were already highly accentuated at the beginning of the 21st century.

The aim of this given work is to identify the challenges of Higher Education Institutions (HEIs) against the increasing digitalization.

This study sets out to answer the following research question: What do the above-mentioned changes imply for Higher Education and how the main agencies (such as HEIs) should respond to the challenges of digitalization?

The given work is based on desk research methods. The examination-analysis of the focused issues have been implemented on the basis of the review of scientific articles.

Relevant conclusions are drawn and recommendations are developed. Findings will be useful to develop the conceptual design of responding measures to the digitalization taken by higher education institutions.

## 2 Industry 4.0 and future of jobs

Many definitions are common in referring to "Industry 4.0" (I4.0) and most of them indicate the process fundamentally related to the digital revolution. "The fourth industrial revolution creates a world in which virtual and physical systems of manufacturing globally cooperate with each other in a flexible way" (Schwab, 2016).

Digital transformation is defined as the changes associated with digital technology applications and integration of that to all aspects of human life. This transformation is in fact to move from a physically empowered life to a digital one (Oztemel, 2020). Each stage of industrial development brought relevant challenges for the workforce and, naturally, for education. In the historical context, industrial development included the following stages:

- ✓ The first industrial revolution spanned from about 1760 to around 1840. Triggered by the construction of railroads and the invention of the steam engine, it ushered in mechanical production.
- ✓ The second industrial revolution, which started in the late 19th century and into the early 20<sup>th</sup> century, made mass production possible, fostered by the advent of electricity and the assembly line.
- ✓ The third industrial revolution began in the 1960s. It is usually called the computer or digital revolution because it was catalyzed by the development of semiconductors, mainframe computing (the 1960s), personal computing (the 1970s and 80s), and the internet (the 1990s). (Schwab, 2016)

Each subsequent stage included and developed the previous stage (albeit at different sizes and speeds in different countries), and the last stage was characterized by the speed of industrial breakthroughs and the rapid changes in workforce demands in favor of the demand for highly qualified and sophisticated skills.

Researchers distinguish differences among Education 1.0, 2.0, 3.0, and 4.0 in terms of educational technology. For example, some identified peculiarities are as follows (Sharma, 2019):

- ✓ Education 1.0: Centuries of memorization practice;
- ✓ Education 2.0: Learning through Internet;

- ✓ Education 3.0: Consumption of knowledge and labor;
- ✓ Education 4.0: Enables education to create change.

It is noteworthy that in the modern world, the transition to the second, third and fourth stages take place simultaneously. The uniqueness of the last step is that the demand for jobs is focused on the so-called "Just-in-Time" delivery system of Jobs.

Digital transformation requires new sets of skills and may not be successful in utilizing only its existing competencies. It imposes a new way of doing things and leaves operational burdens mainly on machines. People are expected to utilize their intellectual capacities rather than physical powers. On this, a very important aspect in the supply and demand of the labor force addresses Oztemel (2020). Researcher arguing about emerging new technologies such as digital manufacturing, artificial intelligence, robotics and autonomy of those, integrated communication network (RFID and IoT), cyber-physical systems, smart factories (flexibility, speed, productivity), big data and analytics, business intelligence, and notes that training program should be employed on the "basis of the need"; In the digital world, training to fill skill gaps should be offered online and on a just-in-time basis due to the speed of change.

Some peculiarities of "Just-in-Time" education are discussed by Levine (2018). The researcher anticipates that regardless of the decisions an institution makes, there is likely to be fierce competition for "just in time" students from a burgeoning number of organizations engaged in postsecondary education. It is likely to come down to whether a student would rather learn the latest computer language and earn a credential from Microsoft or the local regional university. This assumes both providers make the instruction equally convenient, the service equally good, and the cost comparable. What will be necessary is a re-envisioning of college access to include convenient, affordable, and up-to-date education and credentialing tied to market needs across the lifespan. In the years ahead, colleges will be faced with a new population wanting to be retrained for life rather than seeking degrees. They will be demanding not "just in case" education but "just in time."

In response to this challenge emerged digital labor platforms. They include both web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd ("crowd work"), and location-based applications (apps) which allocate work to individuals in a specific geographical area. (ILO, 2018) Digital transformations, on the one hand, contribute to the global demand-supply of labor, but due to the deepening of the digital divide, local (national and regional within the country) incompatibility still remains a challenge in the demand-supply of labor. The imbalance between demanded and delivered professions and qualification requirements on the labor market is identified by researchers in many countries in the world, including Georgia (Tavartkiladze, 2020; Papachashvili, 2019).

With regards to reinforcing the digital divide in education during the COVID-19 crisis is noted in the report of ILO (2020) which states that wealthy schools and learning institutions are able to continue with education and the less wealthy cannot.

As for skills mismatches, it may emerge not just between the supply and demand of existing skills today, but also between today's skills base and future skills requirements. Efforts aimed at closing the skills gap will increasingly need to be grounded in a solid understanding of a country's or industry's skills base today and of changing future skills requirements due to disruptive change.

Across industries, geographies, and job families, and ability to understand the current skills base in near-real time and to accurately forecast, anticipate and prepare for future job contents and skills requirements will be increasingly critical for businesses, labor market policymakers, workers' organizations, and individuals to succeed. Drivers of change to job markets such as Big Data analytics may themselves become useful tools in managing this process (Future of Jobs, 2016).

The close collaboration of business and education is seen by many researchers as a way to overcome this incompatibility. Since new knowledge is always improving technological progress and the convergence of these fields accelerates the process of circulation of new knowledge. Reseachers Vesperi & Gagnidze (2018) reviewed this issue from the perspective of the Entrepreneurial University. Another aspect to receive a set of new knowledge for successfully respond the technological transformations is the integration into the Global Value Chains (Gogorishvili et al., 2018; Mikaberidze&Papachashvili, 2020). On the example of the UK national

policies, Munro (2018) concludes that digital technologies are often framed as tools for advancing marketization, serving utilitarian purposes, and enabling change and reform of higher education.

According to the International Labor Organization (ILO, 2020) in the context of a changing world of work and education, many are challenges and opportunities. Also, ILO indicates, that challenges are emerging on both the supply and the demand side of work and education. The arrival of the COVID-19 Pandemic further exacerbated many of these trends/disruptions and unleashed a series of mega shocks to society as a whole, and to work and education in particular. The COVID-19 crisis has given an additional push to the ongoing trend of the digital transformation of the labor market. The ILO estimates that job losses could be equivalent to 495 million jobs in the last quarter of 2020.

In many industries and countries, the most in-demand occupations or specialties did not exist 10 or even five years ago, and the pace of change is set to accelerate. By one popular estimate, 65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist. In such a rapidly evolving employment landscape, the ability to anticipate and prepare for future skills requirements, job content, and the aggregate effect on employment is increasingly critical for businesses, governments, and individuals in order to fully seize the opportunities presented by these trends—and to mitigate undesirable outcomes. (Future of Jobs, 2016).

### **3 Challenges of higher education institutions**

Many researchers describe the issues generated by the technological advancement that the Industrial Revolution 4.0 brings with it, and force HEIs to deal with a digital transformation in all dimensions, and indicate complex relationships between actors in a technologically supported education domain.

Rethinking the management system in the context of ongoing process is the focus of researchers Roblek et al. (2016). They suggest considering the importance and influence of the Internet-connected technologies for the creation of value-added for organizations and society under the "Knowledge Management 4.0".

Benavides et al. (2020) analyzed scientific papers of the period 1980–2019 and reviled emerging fields, none of the found digital transformation (DT) in HEI proposals have been developed in a holistic dimension. This situation calls for further research efforts on how HEIs can understand DT and face the current requirements that the fourth industrial revolution forced.

Gagnidze (2020) explains the role of the education system in responding to the challenges of the Fourth Industrial Revolution, discusses opinions about the ways for improving school and university education; suggests opinions for cooperation between different stakeholders to implement effective education policies.

Xiao (2019) examined the role of digitalization as it framed in the strategic development plans of 75 top universities in China. Findings show that digitalization as perceived by these universities features instrumentality (e-campus construction and application) and modernization (sustaining and efficiency innovations in teaching and learning), a situation also seen in other countries.

After examining the innovation culture at IBM Research Vey et al. (2017) suggest interesting questions to think and observe: what is the role of managers in the era of digital transformation?

In view of the rapid rate of change, will the "learn how to learn" eventually become more important than the content itself?

To cope with uncertainty in I4.0, among others, some authors suggest creating an infrastructure for promoting entrepreneurship and I4.0 competing fields embedded in education policies (i.e. programming, data analysis, etc.) (Magruk, 2016).

Fundamental shifting the role of academic library and the academic librarian discussed in the changing context of higher education. For example, based on the literature review, it has been identified innovations in academic libraries in digital learning/e-learning, partnership and co-creation, student experience, and the design of spaces for learning that are relevant to current pedagogies (Llewellyn, 2019).

Another study identifies new development strategies of the libraries; complex e-book purchase models offered to libraries; questions of copyright, licensing, and digital rights management; format considerations; and availability of hardware and software on which to read e-books in the digital age (Kahn & Underwood, 2013).

As development and operation of the massive open online courses (MOOCs) which involve multiple stakeholders can be considered as an alternative to the delivery of traditional educational services. But there are different supply-side as well as demand-side impediments. For instance, although colleges and universities in China have established certain mechanisms to develop and operate MOOCs, they faced challenges and issues such as insufficient technical support, inadequate curriculum/instructional design training, and a lack of national curriculum/instructional design and development standards as well as platform standards (Liu & He, 2019).

Online learning is an evolving subject and it requires innovative research methods and approaches to be fully explored and harnessed.

Lekashvili (2019) analysis the key problems of managing the innovation process in the field of teaching economic science and identifies factors affecting the modernization of the education process at the university as follows: human resources potential (highly qualified personnel); corporate culture; applicants, students; self-monitoring of the quality of education; modernization of infrastructure capacity; International activities; scientific commercialized innovative projects and products; financial and economic potential; lack of information resources; optimization of pricing policy; extracurricular activities, and marketing of educational services.

#### **4 Findings for Higher Education Institutions Responding to Industry**

##### **4.0**

Higher education institutions currently operate in the context of digitalization. They will have to overcome many obstacles and resistances to keep up with demand, as the tightening and acceleration of demand-supply in the labor market create alternatives to knowledge delivery in the traditional form.

In order to maintain competitiveness, higher education institutions will have to implement a new reality response management. For the conceptualization of transition management, it is crucial to identify key pillars to influence and promote.

For example, it is important the learning and development professionals in times of digital transformation to act as change agents and peer-to-peer consultants to shape a culture of organizational change (Vey et al., 2017).

In the change management process, it is necessary to be taken into account misconceptions among employees which may lead to active or passive resistance against changes in the educational organization. Accordingly, having a clear vision of the target state is essential for the adoption and integration of technology. To communicate the vision of all employees, the so-called guiding coalition should exemplify the behavior to reach the target state of the organization (Ifenthaler & Egloffstein, 2020).

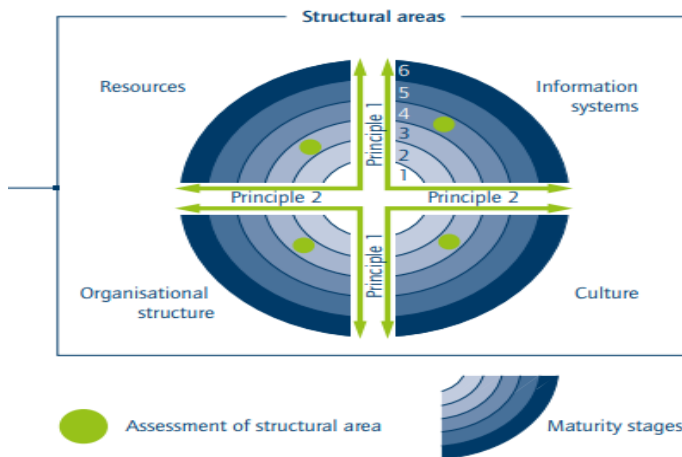
The ICTs have the potential to offer lifelong learning opportunities to a wide constituency of learners. However, unless the issue of access is addressed, the ICTs will increase divisions within societies. States and education authorities at the national and local levels are acknowledging the need to adopt policies and strategies to ensure affordable access to infrastructure and equipment, as well as the development of information technology literacy skills. It is only by adopting such strategies that the full potential of the ICTs for transforming the learning process can be realized (Keogh, 2001).

If the educational world does not first assume a proactive mindset that recognizes both the reality and the implications of dynamic, large-scale, and unpredictable technological change, it may surrender any opportunity to successfully shape that change. Educators cannot afford to disregard this dynamic change process but instead must come to understand and maximize its potential for education (Amirault, 2015).

To manage the transition process of the universities there will be helpful determination the level of readiness of the organization for digital transformation, which can be helped by the Acatech Industrie 4.0 Maturity Index. It assesses them from a technological, organizational, and cultural perspective (Industrie 4.0 Maturity Index, 2017).



The index is designed for manufacturing companies, but we consider it entirely can be adapted for higher education institutions. For example, it is possible to assess the level of readiness of human resources and the digital library in the resource pillar. Also, other infrastructural elements can be added. The management of transformation based on six principles, as follows: computerization; connectivity; visibility; transparency; predictive capacity, and adaptability (Fig. 2).



**Figure 2: Structural Areas of I4.0 Maturity Index**

Source: Industrie 4.0 Maturity Index, 2017.

The Acatech Industrie 4.0 Maturity Index can be used to develop a digital roadmap precisely tailored to the needs of each individual company in order to help them make the most of Industrie 4.0 and transform themselves into learning, agile organizations.

## 5 Conclusions and Recommendations

Almost every country in the world faces the challenges of digital transformations (I 4.0) which was exacerbated during the COVID-19. The changes brought by technological transformations have primarily challenged knowledge-transfer organizations.

A successful response to this challenge gives an important advantage to the organization, as digitalization becoming more and more dominant in the complex environment.

With the increasing digitalization, alternative knowledge transfer channels are growing and higher education institutions will face many acute problems.

It is evident that global networks are becoming the platforms for the acquisition of the demanded knowledge and the development of new skills. It will be harder to maintain the traditional ways of studying and learning.

Because of the ambiguous future, more reasoning is needed to find the right development path taking into account the local peculiarities.

Various studies have revealed a long-term trend of slow delivery of relevant educational services. This is not surprising, as the accumulation, transformation, and creation of new knowledge, which is primarily served by higher education institutions, takes a long time. The globalization of markets is leading to a rapid increase in demand for certain skilled labor.

In order to maintain competitiveness, it is necessary to form a proper vision of what skills should be equipped the workforce.

Effective management of the digital transformation process in the HEIs refers to the readiness of human resources, library resources, infrastructure, etc.

The 4.0 maturity index will be useful for assessing the level of digitization in the organization (HEIs) and outlining the measures to be taken.

Current development issues of HEIs should be considered in the context of digitalization. Some impediments may be overcome more or less quickly and some of them require a long-term effort. These multidimensional issues will be highly disputable in the future decades.

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# PROGRESS TOWARDS INDUSTRY 4.0 – A MANAGEMENT TOOLS PERSPECTIVE

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**Abstract** The main aim of this draft paper is to discuss the progress towards Industry 4.0 in organizations, through the lenses of management tools utilization. Our discussion is based on the cognitions that management tools support organizational working under Industry 4.0 circumstances. According to the management tools utilization we argue about the level of Industry 4.0 implementation in organizations. Based on the current level of management tools utilization, it is evident that in the forefront are management tools, which are not tightly associated with supporting organizational working under Industry 4.0 circumstances, like outsourcing, benchmarking, knowledge management, etc, while commonly emphasized management tools for supporting organizational working under Industry 4.0 circumstances, are not in the forefront of use, like lean production, RFID, six-sigma, etc. Results allow us to argue that organizations are at the early stages of Industry 4.0 implementation in organizations. The paper offers some possible reasons for such state. This paper should also trigger questions, how to increase the level of Industry 4.0 implementation in organizations.

**Keywords:**  
industry 4.0,  
management  
tools,  
organizations,  
implementation  
level,  
Central  
Europe,  
Slovenia

## 1 Introduction

In management literature, the terms digitalization, internet of things, smart organization, and Industry 4.0 has been increasing appearing over last few years. The new imperative of nowadays business environment, especially for manufacturing organizations, is the phenomena of digitalization, usually conceptualized as Industry 4.0. The issues of increased digitalization and implementation of principles of Industry 4.0 in organizational practice, have been recently much discussed (Lu, 2017; Potočan, Mulej, & Nedelko, 2020; Roblek, Meško, & Krapež, 2016; Zezulka, Marcon, Vesely, & Sajdl, 2016).

From the beginning of the emergence of Industry 4.0 phenomena, the focus was on general debates about conceptualization of Industry 4.0 and its possible applications in organizations. The main body of the literature deals with the implementation of Industry 4.0 principles in organizations, where the focus is on technical aspect of digitalization by focusing on issues related with implementation of IT solutions, changes due to the new technologies, reporting good practices of implementation (Mrugalska & Wyrwicka, 2017; Otles & Sakalli, 2019), etc. More softer aspects of Industry 4.0 implementation in organizations, like managerial perspective, needed new personal and professional competences, management tools that support working under Industry 4.0 circumstances, are given less attention, although their importance increased steadily over last few years (Črešnar & Nedelko, 2020; Ghobakhloo, 2018; Schneider, 2018).

An important stream of research in context of Industry 4.0 is also focusing on assessing the readiness of organizations for Industry 4.0 implementation. There has been an ongoing debate for some years how to assess readiness for Industry 4.0 and level of Industry 4.0 implementation in organizations. Most commonly are outlined models from Warwick University (Agca et al., 2017) and Acateh model (Schuh, Anderl, Gausemeier, ten Hompel, & Wahlster, 2017) to assess the readiness of organizations for Industry 4.0. There is also an alternative way, to assess level of Industry 4.0 implementation based on usage of management tools (Črešnar, Potočan, & Nedelko, 2020). The latest way is more comprehensive, as it emphasizes how management tools, which are commonly used in organizations, support organizational working and how management tools contribute to the increasing level of Industry 4.0 implementation in organizations. Following this, the paper

offers some insights how organizations are progressing towards Industry 4.0 implementation.

The structure of the paper is as follows. First, we provide a short theoretical insight what is Industry 4.0 and what are management tools. Next, we emphasize current state of management tools usage in organizations to get an insight into Industry 4.0 implementation level, through the prism of management tools utilization. Finally, we discuss the reasons for current level of Industry 4.0 implementation, while also consider the impact of COVID 19 circumstances. We conclude the paper with some thought about future research directions.

## **2 Theoretical background**

Management tools can be seen as a set of ideas and concepts to support organizational working and behavior, across various functional areas, organizational processes, and different hierarchical levels in organizations (Dabic, Potocan, Nedelko, & Morgan, 2013; Potocan, Nedelko, & Mulej, 2012; D. Rigby, 2001).

Industry 4.0 can be most simply defined as a set of permanent connections between all objects (e.g. machines, equipment) and subjects (i.e. people) in organization and beyond the organization (i.e. customers and suppliers) (Dombrowski, Richter, & Krenkel, 2017; Wagner, Herrmann, & Thiede, 2017; Zezulka et al., 2016).

The linkages between utilization of management tools and Industry 4.0 have been addressed in the literature. Most commonly is emphasized lean production, which is considered as foundation for Industry 4.0 implementation in organizations (Mrugalska & Wyrwicka, 2017; Rossini, Costa, Tortorella, & Portioli-Staudacher, 2019; Wagner et al., 2017). Looking through the prism of “content of management tools” also other tools are closely related to the digitalization of organizations, like six sigma (Jayaram, 2016), radio-frequency identification (Mladineo et al., 2019), strategic planning (Butt, 2020), and others.

In a comprehensive study of management tools under Industry 4.0 circumstances, Črešnar et al. (2020) revealed following management tools, which are supporting organizational working under Industry 4.0 circumstances, namely, (1) digital transformation, (2) balanced scorecard, (3) rapid prototyping, (4) radio-frequency

identification, (5) six sigma, (6) mission and vision statement, (7) customer segmentation, and (8) total quality management.

Thus, the level of management tools utilization may serve us as an indicator of organizational readiness for implementing industry 4.0 and the progress towards implementation of Industry 4.0 principles in organizations. Accordingly, based on the associations between management tools and working under Industry 4.0 circumstances, it can be speculated that relatively lower utilization of management tools aimed on supporting organizational working under Industry 4.0 circumstances, emphasize lower readiness of organizations, comparing to the organizations having higher level of utilization of management tools, considered to support organizational working under Industry 4.0 circumstances.

### **3 Management tools utilization in organizations in Central Europe**

In this section we outline current level of management tools utilization in organizations in Central Europe. Based on prior studies of management tools and list of tools in this studies (Dabic et al., 2013; Z. Nedelko, Potocan, & Dabić, 2015; Z. Nedelko & Potočan, 2016; D. K. Rigby & Bilodeau, 2015), for the purpose our discussion about the level of Industry 4.0 adoption in organizations, we adopt mean values about usage of management tools, from the study examining usage of management tools in organizations in Central Europe (Treven, Uršič, & Rashad, 2019). The mean values about most commonly used management tools in organizations in Central Europe are outline in Table 1.



**Table 1: Management tools usage in Central Europe<sup>a</sup>**

Management tool	Mean	SD
Outsourcing	1.52	.666
Benchmarking	1.57	.671
Total quality management	1.68	.688
Knowledge management	1.72	.744
Core competencies	1.75	.821
Strategic planning	1.77	.624
Customer relationship management	1.89	.725
Business process reengineering	1.90	.771
Mission and vision statements	1.94	.795
Balanced scorecard	1.97	.866
Mergers and acquisitions	2.03	.649
Customer segmentation	2.07	.717
Loyalty management	2.15	.701
Strategic alliances	2.17	.696
Scenario planning	2.18	.786
Corporate blogs	2.18	.809
Growth strategic tools	2.29	.709
Collaborative innovation	2.32	.696
Lean production	2.39	.618
Six sigma	2.40	.712
Consumer ethnography	2.47	.666
Shared service centers	2.48	.620
Radio frequency identification	2.53	.666
Off-shoring	2.55	.626

<sup>a</sup> N = 184-198 (due to the missing values). Respondents indicated their utilization of single management tool with help of a Likert-type scale ranging from “I know and use the tool” (1) to “I don’t know and don’t use the tool” (3).

#### 4 Discussion and conclusions

The outlined results show, that in considered Central Europe organizations are in the forefront management tool aimed on optimization of organizational processes, increasing quality and improving knowledge and competencies of employees (Z. Nedelko & Potočan, 2016).

Looking through the prism of Slovenian context, it is very interesting, that even though that Slovenia’s largest export partner is Germany, where the Industry 4.0 was established and that Germany organizations are on the higher level of Industry 4.0 adoption in organizations, Slovenia is not at the high level of Industry 4.0 implementation (Zlatko Nedelko & Potocan, 2018).

As many Slovenian organizations are acting as sub-contractors in large supply chain, it seems logical that there will be much pressure from the focal organizations to follow the practices of focal organization, in order that sub-contractors will be compatible with focal organization. We may argue that this is still not at the forefront of the interest, rather is still in most important assuring high level of quality, as Slovenian sub-contractors are reliable and are achieving high quality standards. It seems that achieving quality is still most important feature, comparing to the putting in the at the first-place concern for Industry 4.0.

Certainly, Slovenian organizations have already implemented and are still implementing many elements of Industry 4.0 principles adoption in order to become and stay competitive in the market. Thus, we have many examples, where lean principles were implemented to support achieving better quality, faster production cycle and overall optimization of the processes. Although, it would be worth to consider the low level of lean principles/manufacturing usage, as some authors claimed that lean principles are key foundation for Industry 4.0 (Mayr et al., 2018; Xu & Ta, 2018), while some claim that lean principles are not associated with Industry 4.0 implementation (Črešnar et al., 2020).

Interesting is that in Slovenian organizations is most commonly used outsourcing. This is a logic consequence of the fact, that in Slovenia are more than 90 percent of organization with less than 50 employees, therefore considered as micro and small enterprises. Thus, it would be irrational to expect that they first goal will be to implement Industry 4.0 principles, which aims to connect all aspects of organization together. What is more, outsourcing has negative impact on organizational implementation of Industry 4.0 principles in organizations (Črešnar et al., 2020). This support the speculation, that Industry 4.0 is hard and very expensive to implement in smaller organizations, and it is not in line with the policy of “outsourcing” in organizations.

To sum up, looking on the organizational readiness for Industry 4.0, through the prism of management tools utilization, we may argue that the current pattern and level of management tools usage suggest, that the organizations in Central Europe are at the beginning of their journey towards Industry 4.0 implementation. These findings are in line with findings about early stages of Industry 4.0 implementation

in organizations (Horvat, Kroll, & Jäger, 2019; Hubert Backhaus & Nadarajah, 2019).

When the phenomena of Industry 4.0 become relatively well-known, a general enthusiasm may be noticed and an independent observer may get feeling that Industry 4.0 has become a new “must have in organizations”. Looking from today’s perspective, few years later since the Industry 4.0 emerged, we can observe that the initial enthusiasm has vanished. We may argue that this due to the complexity of the implementation of principles and especially technologies associated with Industry 4.0. Next, huge costs associated with new technologies, adaptation of older equipment and possible incompatibilities, also reduced the pace of Industry 4.0 principles adoption. Another reason may lie in the so called “dependence on technology”, where organization do not want to implement costly technologies, which makes them depended on regular maintenance, adoptions, etc.

Additionally, in light of current economic circumstances, caused by COVID 19, we may argue, that the process of moving toward higher levels of Industry 4.0 implementation in organizations, is hindered due to these circumstances, created by COVID 19 crisis. COVID 19 may also be considered, either as either as facilitator or impediment (Acioli, Scavarda, & Reis, 2021; Czifra & Molnár, 2020) for Industry 4.0 implementation. Industry 4.0 therefore may be seen as a way to help organization to cope with negative consequences of COVID 19. Although, more realistic is that COVID 19 will acts as a barrier towards Industry 4.0 implementation. When considering COVID 19 as barrier, we may argue that organizations in crisis circumstances put more focus on organizational survival, not so much on “developing new projects” (Lauesen, 2013; Soulsby, Hollinshead, & Steger, 2017), among which is also Industry 4.0 implementation.

In terms of paper implications, the findings suggest, that Slovenian organizations are at the initial level of Industry 4.0 implementation. Managers should recognize the importance of management tools usage for fostering implementation of Industry 4.0 principles in organizations. Thus, managers should re-thing current usage of certain management tools in organizations, and try to boost usage of tools, which may speed up implementation of Industry 4.0 principles. For instance, outsourcing is negatively related with implementation of Industry 4.0 practices. This is of significant importance, as in Slovenia outsourcing has been most commonly used, or at least

among top three management tools. This implies, that this may importantly impede implementation of Industry 4.0 principles in Slovenian organizations.

Therefore, above cognitions call for deeper research about the role of certain management tools in context of Industry 4.0 implementation, like outsourcing and lean production. Adding new management tools, especially the tools associated with digitalization, which are currently not listed, like digital transformation (Črešnar et al., 2020), will sharpen the picture about the role of management tools for Industry 4.0 implementation. Beneficial will be also to distinguish between countries having different economic, cultural and social settings, to verify the pattern of the results beyond the Slovenian context, emphasized in this paper.

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# EPIDEMICAL RESTRICTIONS IN THE LEGAL ORDER - CAN WE IGNORE AN UNFAIR LAW? QUESTIONS AND CONSEQUENCES FOR BUSINESS IN EU

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**Abstract** Currently, we feel the impact of the epidemic in all areas of social life. It has also been included in the legal framework. Through legal regulations, states take specific actions that have measurable consequences - also for business. There is an interesting problem of the validity and effectiveness of a law that we can call "epidemic law". Thus, the title question arises, to which I will answer in the text - is it possible to ignore unfair law?

**Keywords:**

justice,  
injustice,  
law,  
epidemic,  
legislation,  
epidemic  
law

## 1 Introduction

The coronavirus epidemic, which entered the EU for good in March 2020, is a phenomenon with very large consequences for almost all areas of social life, including the economic one. The epidemic has an impact on the health policy of states, the defense sector, the judiciary, maintaining order, and education. The epidemic shapes the economy - despite its generally negative impact, we observe sectors of the economy that have recorded significant progress (such as enterprises dealing with Internet communication, entertainment via the Internet or the medical industry). These changes are correlated with the legislative activity of authorized centers of power. The centers of power authorized to legislate decide on the introduction of specific legal solutions in a given territory. The EU member states decided on various solutions, sometimes more and sometimes less restrictive. So we can talk about a kind of "epidemic law". We know the phenomenon of "lock down", that is, a significant restriction of civil liberties consisting in the closure of certain branches of the economy and a significant limitation of movement. There are also various tools in the sphere of social law that allow to support those in need (benefits, subsidies). Therefore, we can easily say, which is nothing new, that we observe the regulation of social life by law. Of course, the regulation of social life by law is nothing new, and nothing in principle wrong. However, a number of problems may arise, such that in an epidemic situation, the centers of power will appropriate certain powers that they would not normally have. In other words, will the pandemic problem be used to instrumentalise the law. By means of do's and don'ts - authorized centers of power create reality. In the era of an epidemic, it is an outstanding example of the "empire of law" as Ronald Dworkin and his numerous commentators write about (Dworkin, 2006). However, there is - it is also obvious - a field for abuse by power centers. The epidemic may turn out to be an excellent pretext for pursuing a policy of repressive legislation. Restricting civil liberties, not only in the economic sphere but also in the personal sphere, may be perceived by citizens as excessive, disproportionate to the situation. It is easy to imagine a situation where an epidemic could be accepted as a basis for banning any gatherings, which could disrupt political life. Similarly, legal prohibitions can block the functioning of entire branches of the economy almost overnight. A situation may arise in which we are dealing with the so-called unfair law. So interesting questions arise - what is an unfair law? Is an epidemic a justification for any legal regulation? Is this a new problem? How can a citizen behave? We can also consider the questions (and many others) in terms of



extraordinary situations. This is because in many legal orders there are special regulations concerning special (extraordinary) situations. These can be special regulations for war, flood or hurricanes. Therefore, the situation should also be considered in the context of solutions already known and functioning in legal systems. However, the broader perspective cannot be forgotten. After all, we sometimes say that "the end justifies the means." But is it in every situation? Should there be limits somewhere? And will the specific regulations for a time of emergency finally disappear with this state of emergency? Or will they remain forever and the same, the emergency situation and special laws may lead to a totalitarian regime? These are questions concerning the theory of law of a fundamental nature for all legal orders within the democratic state of law of the Western model. The answers to them go beyond the legal sphere and have a direct relationship with, among others, business.

## **2 Unfair law**

Considerations on the meaning of the concept of justice in law are as old as the first legal regulations known to us. From the earliest times, thinkers have been wondering what is justice in law. We need to know what this concept means in order to know its antithesis, i.e. what an unfair law is. Leszek Kołakowski ironically observes "since almost all philosophers, moralists and legal theorists tried to explain what justice, a just deed, a just man and a just state consisted of, it should be assumed that they did not come to clarity and agreement in this matter" (Kołakowski, 2000). Indeed, it is so and there is no uniform opinion on this subject.

In antiquity, such as in the Egyptian, Mesopotamian, and Hebrew legal systems, justice was combined with righteousness. As Moshe Weinfeld points out, "justice and righteousness are considered an exalted, divine ideal" (Weinfeld, 1994). Just law was very universal, it can be said that it was universal and it was not limited only to legal relations. The mine of knowledge about justice in law is Antiquity and Roman thought. The famous maxim *Iustitia est constans et perpetua voluntas ius suum cuique tribuendi* is considered to be classic, i.e. that justice is the constant and unchanging will to grant everyone the rights he deserves. Commonly known from Justinian Digests is the definition of law (just law) as the art (skill) of finding and applying what is good and right - *Iuri operam daturum prius nosse oportet, unde*

nomen iuris descendat, est autem a iustitia appellatum: nam, ut eleganter Celsus definit, ius est ars boni et aequi (Kuryłowicz, 2003).

Thus, we can consider as a just law a law that contributes to doing good, allowing for the granting of due rights - although, it must be emphasized, these rights will be differentiated. Just law cannot mean absolute equality. Just law is an art and, like any art, it must ensure harmony both in its formal and material terms. In other words, a just law is one that reflects and protects certain values of the good and has the correct form. This means that it is understandable, legible, duly advertised, accessible and enforceable, among other things, and guarantees the defense of values. These are, of course, brief considerations to signal the topic under discussion.

However, a problem may arise when we are dealing with only formally correct law. Some will say about such a case - the law is formally just. It is about the situation when an authorized center of power (for example parliament) will pass a law and announce it - but it will be materially unfair? In other words, from a formal perspective, everything is fine - the legislative process has been preserved and a country has enacted a law that allows certain behaviors that may be considered unfair. This may be, for example, the right to discriminate against a specific group of people - for example by limiting their personal rights or prohibiting them from running a business. In extreme cases, as our history knows, formally just (correct) law may allow the extermination of certain nationalities. An example from history is the so-called "Soviet justice", which allowed for murders, repressions, and harms against millions of people, for example, the exile of hundreds of thousands of Polish citizens to Siberia, many of whom died (Zamorski, Starzewski, 1994). This "Soviet justice" is the contradiction, the antithesis of what we think of justice in its true sense. It is an example of the instrumentalisation of law and its use as a tool of political struggle. Franziska Exeler points out directly that "for Stalin and his closest circle, internal and international justice, as well as politics, were closely intertwined. In the post-war years, Moscow continued to adapt the public trials of Axis soldiers and Soviet citizens to its political needs "(Exeler, 2019).

Nowadays, starting from the times after the Second World War, the so-called Gustav Radbruch Formula is being discussed. This eminent German thinker was an opponent of Nazism, recognizing that Germans who were guilty of crimes should be punished for them. The problem for such action was the legislation of the Third

German Reich, which formally and correctly sanctioned and allowed for criminal behavior. So a dissonance has arisen - what to do in a situation when certain actions comply with positive law (formally announced, in force at a given time in a given territory), and which are also inconsistent with what we can call natural law?

In terms of content, "the formula consists of three elements that have the form of separate theses. Each of the theses, therefore, constitutes a separate fragment of the concept which as a whole does not have a homogeneous character. The first thesis is called "the thesis of gross contradiction" (Unerträglichkeitsthese) (...) The second thesis is "the thesis about the lack of legal character" (Verleugnungsthese) (...) The third thesis is the statement about the defenselessness of legal circles (Wehrlosigkeitsthese) (Lubertowicz, 2010).

As Radbruch himself states: "the conflict between justice and legal security should be resolved in such a way that the positive law guaranteed by the legislation and state authority would take precedence also when it is essentially unfair and pointless, unless the contradiction to the positive law with justice reaches such a degree. that the act as an unjust law should give way to justice" (Radbruch, 1985). Therefore, we are talking about the primacy of just law (justice) over positive (formal) law in a situation where it is deprived of the value of justice and is in conflict with it. Nowadays, one should remember about the necessity of the functioning of law as a regulator of social life and, if it can be expressed this way, about the need to respect the mutual reasons put forward both from the perspective of naturalism and positivism.

The above-mentioned (German and Soviet) examples of unjust law are extreme, but they adequately illustrate the seriousness of the situation and the consequences for Western societies of instrumentalization, relativism and objectification of law. Paying attention only to its formal side, without analyzing its values, is dangerous. The coronavirus pandemic example shows this. In the EU, we are dealing with far-reaching legal restrictions, limiting civic rights as we know (or have known) so far. The rationale is to fight the pandemic, which of course is a noble goal. However, the tools that we use to solve problem situations should be analyzed each time. There is a saying in Poland that "you shouldn't aim the cannon at the fly", which jokingly reflects the need to analyze in terms of effectiveness or purposefulness.

### 3 Consequences of unfair law

Now we return to the ground of theoretical considerations, not forgetting, however, the practical burden they carry. As we established at the beginning, legal solutions - both fair and unfair - have a measurable impact on social life, including the economy.

The reality we experience during a pandemic can be very different from what we know from years ago. Communication problems, closed branches of the economy, assembly bans or the order to cover the mouth and nose - all this accompanies us every day. Thus, such regulations of the "epidemic law" directly shape our social life. So we are dealing with a certain established law, a positive law. So one may ask, is it a fair law?

In the Polish legal system, we observe interesting phenomena in the above context in the last months of 2020 and in the first half of 2021. First of all, the jurisprudence of administrative courts (i.e. repeated judgments according to the same general motive) lifting administrative penalties imposed on citizens - be they natural persons or entrepreneurs, in connection with violations of "epidemic" law is noticeable. The justifications indicate that the legal restrictions were introduced incorrectly - inter alia, in the form of an ordinance instead of a statute (i.e. a subordinate act, which makes this form of legislation incorrect for such far-reaching restrictions). It means no less, no more, that the judiciary acted against the legislature in this respect, pointing to the mistakes that the latter had committed. Secondly, there are observable - as in many EU countries - social behavior that ignores the formally introduced bans. This is manifested, for example, in faces that are not properly covered with masks or in running a business despite the ban. It is an interesting example of the disobedience of EU citizens to the legal rules imposed on them. Now, I leave the issues raised by Polish administrative courts beyond the considerations - because here the problem is completely different and the cause of the courts' interference is the described defectiveness of the legislator's actions. The key is the collective act of disobedience to the regulation of the "epidemic law" which is becoming more and more common among EU citizens. As I have signaled, it takes many forms.

Therefore, the question arises whether we can speak of an unfair law in such a case? For example, is the ban on the free movement of EU citizens or the ban on business activities fair or not? Of course, discussions on this topic can be very hot and take a long time. Among the arguments "for" we can mention the argument of excessively stringent regulation, disproportionate to the epidemic threat, while on the opposite side the argument is exactly the opposite - regulations, although painful, are to save life and health. The discussion can be very lively (and it is, as confirmed by the analyzes of information services of the EU Member States). It is good that there is room for dialogue in a democratic country. However, it should proceed rationally, by which I mean the search for optimal solutions to the situation. Such solutions then translate into legal (legislative) solutions.

Without entering into this dispute, we can ask further - what in the situation of increasing the rigorism of the "epidemic law"? After all, we can imagine very drastic restrictions that we know from history. In a situation where the centers of power and law-making decide to take such actions, can they be said to be contrary to justice and denied their validity, and thus refused to obey?

It all depends on the degree of violation of justice. In my opinion, some of the legal regulations that we are already encountering in the territory of the EU can be considered as violating the principles of justice. Shutting down certain economic activities (and not restricting sanitary safety rules) or far-reaching travel bans are examples of this. The situation is dynamic, however, and it may worsen as well as improve. Personally, I would focus on the direction of maintaining certain forms of repression (for example, the prohibition of movement or restriction of movement), intensive supervision of state services over citizens while "opening" the economy. The cases of business activity analyzed by me (these are Polish, Spanish, Slovak and German cases) are individual and may be unrepresentative. However, they show that entrepreneurs, despite the bans contained in the "epidemic law", want to act. In fact, their economic activity is conducted despite legal prohibitions. The analysis of the justifications shows that the bans imposed by the state are, in the opinion of entrepreneurs, inadequate to the situation, and therefore unfair. I believe that such a rationale has solid foundations. Forbidding someone to use his basic right to run a business condemns him to liquidation in business and, consequently, to poverty. As a consequence, it will have to benefit from the social support of the state. Legal

regulations introducing such solutions are unfair and therefore they can be denied their validity.

Of course, one should remember about the seriousness of the situation related to the epidemic, which, however, does not exclude (or even mandate) seeking rational solutions.

#### **4 Conclusions**

Undoubtedly, we live in very interesting times that provide excellent research material on the questions that have been asked for thousands of years. One should expect with impatience the further development of the situation in the field of the "epidemic law" and its impact on the social and economic reality.

By answering the questions posed at the beginning, we can clarify that unjust law is the antithesis of just law. It is a law that does not take into account the value of the good. Considerations on this issue are not a new problem and have accompanied mankind for centuries. Unfortunately, we know examples of the application of unfair law in practice (Soviet Union, German Third Reich). Using the discussed formula of Radbruch, in the event of a conflict of the established positive law with the principles of justice, the citizen has the right to disobey this law. Of course, this will have certain consequences. It is worth, however, always striving for justice - and that of justice not only understood in a formal way. The ideal is, of course, a positivist-naturalistic symbiosis. What are the consequences for business in the case of unfair law? These are only negative consequences. Such normative solutions lead to the withdrawal of people from conducting business activity. Part of the business is disappearing and some of them are moving to the shadow economy. These are undesirable phenomena and that is why it is so important to moderate prohibitions and orders in the law, also - and perhaps most importantly - in "pandemic law". It should also be emphasized that the lack of a stable law - and some solutions to the "epidemic law" may be such unstable law - is negative for society and the economy. In the examples we have considered, recognizing a law as wrong and refusing to apply it leads to chaos. One can imagine a situation where the citizen's right to disobey is being abused. Then disobedience can be used in situations where the injustice is not that significant (which is, of course, a judgmental and difficult phenomenon). This is another big threat that we may have to deal with. I believe

that all legal methods should be used to fight against unfair law. It must be believed that in such a situation the judiciary will critically approach the activities of the legislature. All forms of civic activity such as extraordinary complaints, lawsuits and other legal instruments should take place. It should be emphasized once again that civil objection to unfair, "pandemic" law should be opposition to excessive instruments that do not serve society, and not erga omnes, against all and to deny the fact itself.

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# ESTABLISHING AN ANNUAL ACCOUNT FOR PERFORMERS OF INDEPENDENT ACTIVITY

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**Abstract** The preparation of the Annual account is mandatory for all economic entities in the Republic of North Macedonia. Depending on the type of categorized economic entity, special forms are prepared prescribed by law, in order to summarize them in the Annual account. Performers of independent activity are economic entities that include an individual person – entrepreneur, sole proprietorship an individual person who is engaged in performing agricultural, craft activity, as well as a person who performs a service or free occupation. Accordingly, at the end of the year, it is necessary to prepare an Annual account which contains the Income and Expenses Balance, the Annual Tax Balance for determining the income tax from performing an independent activity and the Income Structure by activities. The main purpose of the paper is to reflect the legislation of a certain part of companies registered in accordance with the law in The Republic of North Macedonia for external reporting and tax purposes. Hence, as a conclusion, the practical preparation of the three forms, implemented in the Annual Account of a sole proprietorship can be seen.

**Keywords:**

annual  
account,  
economic  
entity,  
sole  
proprietorship,  
income and  
expenses,  
tax  
balance

## **1 Introduction**

In the Republic of North Macedonia there is a standardized way of preparing an Annual Account, depending on the type of categorized economic entity and the required forms in accordance with the prescribed law. The category of Performers of independent activity includes individual person - entrepreneur, sole proprietorship and individual person who is engaged in performing agricultural, craft activity, as well as a person who performs a service or free occupation. According to the Law on Trade Companies, a sole proprietorship is a natural person who, in the form of occupation, performs any of the trade activities defined by this law. A sole proprietor is someone who owns an unincorporated business by himself or herself (Internal Revenue Service, 2021). A sole proprietorship also referred to as a sole trader or a proprietorship, is an unincorporated business that has just one owner who pays personal income tax on profits earned from the business (Twin, 2020). The sole proprietorship is liable for his obligations personally and unlimitedly with all his property. According to the Law on Trade Companies, a sole proprietorship is an individual person who, in the form of occupation, performs any of the trade activities defined by this law (Official Gazette RNM, 2004).

All provisions of the Law on Trade Companies that refer to trade companies also apply to the sole proprietorship, except when there are restrictions in the Law on Trade Companies. Any person who wants to register as a sole proprietorship, is need to register in the trade register at the Central Register of the Republic of North Macedonia. In addition, persons who are subject to bankruptcy proceedings, or persons who intentionally caused bankruptcy cannot be registered as sole proprietorships.

## **2 Regulations and forms required for compiling an annual account for performers of independent activity**

A sole proprietorship can be a small business with a few employees or a large business with thousands of employees. In a small business, one person may handle the accounting duties. A large business might have several employees working in an accounting department. Whether large or small, the preparation of financial statements is an important task (Guerrieri, 2003). There is a wide range of forms according to which the Annual account is prepared by the performers of

independent activity. According to the legislation, there is an appropriate obligation for each entrepreneur in accordance with the prescribed regulations, to comply with them and to keep proper accounting records. This indicates the need for uniformity, comparability and harmonization of financial statements. Hence, for compiling the financial statements of the performers of independent activity it is necessary to use the following laws:

- Law on Trade Companies,
- Law on Personal Income Tax,
- Law on Value Added Tax,
- Law on Tax Procedures,
- Law on Procedures.

In addition to the aforementioned laws, certain rules and regulations are required for the preparation of the Annual account. These are the following: Rulebook on the form, content and the manner of compiling the annual tax balance for the taxpayers performing independent activity, Regulations on the form and content of business books, the manner of their keeping and expression of the financial result of taxpayers performing independent activity, Rulebook on the form, content and manner of filling in the Form for distribution of realizer revenues by activities RIA – Recapitulator, the Decree on the nomenclature of depreciation assets and annual depreciation rates, as well as the manner of calculating the depreciation, i.e. the write-off of the value of the tangible and intangible assets and the General Collective Agreement for the private sector in the field of economy (IFRS Consulting, 2001).

### **3 Manner of compiling an annual account for the performers of independent activity**

#### **3.1 Required forms for compiling an Annual account**

All performers of independent activity are obliged to keep accounting records and to prepare an annual accounting accordingly. The objective of financial statements is to provide information about the financial position, performance and changes in financial positions of an enterprise that is useful to a wide range of users in making economic decisions (International Accounting Standards Board, 2007). The Annual

account is prepared as of 31.12 and is submitted no later than March 15 of each year, referring to the previous year. Annual accounting submits all performers of independent activity, except those who are taxed on a lump sum basis meeting certain conditions prescribed by the law.

The persons which submit an Annual account need to prepare the following forms:

- Income Statement (Statement of revenues and expenditures);
- Annual tax balance for determining the income tax from performing independent activity;
- Revenue structure by activities.

### **3.2 Preparing an Income Statement**

The Income Statement is a report that includes the total revenue and expenditures from the operation of the business entity, as well as the value of working assets and the value of inventory. The preparation of this report is prescribed in the Rulebook on the form and content of the business books, the manner of their keeping and presentation of the financial result of the taxpayers (Official Gazette RNM, 2020). In order to make a better interpretation of the composition of the report within in this paper will be displayed the real data from the operation of the company registered as a sole proprietorship who keep accounting records on the principle of double entry bookkeeping.

Revenue from independent activity – are the revenue realized from economic activity, from providing professional and other intellectual services, as well as the revenues from agricultural activity and from other activities whose permanent goal is to realize revenues. When recording revenue in the Statement of income, it should be taken into account whether the performer of independent activity is a taxpayer or not. This is because for those entities are taxpayers (Public Revenue Office of RNM, 2021) the revenue is entered in gross amount, and then the amount for VAT is expressed in a separate column. The expenditures form independent activity – are cash expenditures expressed in order to earn the revenues. The difference between total revenue and expenditures will give the net income or lose from taxation. Separate data in the Income statement include the value of working capital and the

value of inventories. Practically composing of the Income Statements will be shown below.

The sample performer is registered as a sole proprietorship, performing accounting, bookkeeping and auditing activities and tax advice. Which means that the largest and the only one part of the revenue is realized as revenue from rendered services and they amount to 1.039.728 denars. Regarding the expenditures, the following expenditures are realized: Lease for working premises 55.188 denars and refer to expenditures incurred for leasing the space where the work take place, costs for performed services that have character of material costs (transport and other costs) which they cover the costs for transport services, telecommunications, postal services and they amount to 100.853 denars. The calculating depreciation of the fixed assets available to the business entity also appears as expenditure. In order to be able to calculate this item, it is necessary to follow the Regulation on nomenclature of depreciation assets and annual depreciation rates, as well as the method of calculation depreciation, i.e. write-off of the value of tangible and intangible assets (Official Gazette RNM, 2019). It is necessary to calculate the depreciation in a way where the adjusted value will be compared for the amount calculated with the annual depreciation rates according to nomenclature. This rate can be increased up to 50%. The calculated depreciation is 53.440 denars (total facilities and equipment are 217.450 denars, and the depreciation rate of computer equipment with software, telecommunications equipment, passenger motor vehicles, motor vehicles and connecting devices is 25%. What is characteristic in The Income Statements of the Performers of independent activity is the category Paid gross salaries of employees. Here is entered the gross amount of net salary and salary allowances (in this case because the performer has no employees in this fields no amount will be entered). Performers as owners do not earn salary and therefore that amount can't be recognized as expenditures in the tax balance. However, despite the fact that he does not earn a salary, the performer is obligated to pay contributions in accordance with the law and to record them in the field for paid contributions for compulsory social insurance which amount to 115.151 denars. The rate for salary contributions is 26.80% and includes contributions for pension and social insurance in the amount of 18.8%, contribution for compulsory health insurance 7.5%, and additional health 0.5%. Employers that are Performers of independent activity, do not calculated the employment contribution. When it comes to paid value added tax, this performer is not obligated to pay VAT because he has an income less than

2.000.000 denars. Regardless of that, Performers of independent activity do not include the paid VAT in expenditures, because the incomes and the expenditures that are realized are presented in a net amount, and the amount of VAT is not shown. The paid insurance premiums amount to 22.582 denars and they refer to all paid insurance premiums for non-life insurance, in this case it is property insurance.

The Balance includes as recognized expenditures 69.100 denars from the diaries in the amount of (8% for diaries and business trips in the country), travel costs (for own car 30% of the price per liter of fuel for each kilometer traveled, but not more than 3.500 denars per month), field allowances (accommodation, food, etc.) and other fees determined by the Law and General Collective Agreement for the private sector in the field of economy (Official Gazette RNM, 2014). If other costs are incurred, such as research and development costs, life insurance, etc. they are entered in other expenditures field. From research and development they amount to 36.369 denars.

Depending on the amount of revenue and expenditures, the financial result is calculated, which includes the net income before tax and the loss before tax.

Total revenue 1.039.728

Total expenditures (sum of all previously mentioned expenses) 452.953

Net income before tax 586.775

Net income before tax is the starting point for determining the basis for calculating income tax from independent activity in the Annual Tax Balance.

### **3.3 Annual tax balance for determining the income tax from performing independent activity**

The basis for calculating the income tax from independent activity is the difference between the total revenue and the total expenditures of the taxpayer, increased by the unrecognized expenditures for tax purposes (Official Gazette RNM, 2018) in accordance with accounting regulation, accounting standards and provisions. If there any established reasons according to which the performer of independent activity is not able to keep the business books, then a lump sum payment of income tax is legally allowed, which is not the case with the example in this paper.

The performer of independent activity is obliged in the annual tax balance when determining the base for calculating of the tax income from independent activity, firstly to enter the net income before taxation or the loss before taxation. Which field will be fills depend on the data from previous Statement, i.e. of the financial result obtained in it. The sole proprietorship, made a net profit before taxation 586.775 denars, and this is the starting point in creating of the annual tax balance. What is important in this financial report is that in order to determine the tax base, it is necessary to make several calculations based on the data from the operation of the company. First of all, it starts form determining what unrecognized expenditures for tax purposes are. Those unrecognized expenditures will be added to the net income before taxation, which will increase the amount of net income before taxation and will reduce (if any) the reported loss before taxation.

As expenditures that will not be recognized for tax purposes under the Personal Income Tax Law, will be shown below (Official Gazette RNM, 2018):

- The amount determined as the difference between market price and transfer price of the related parties. This takes into account the prices achieved by comparing the prices on the domestic market and the prices on the comparative foreign market;
- Depreciation above the amount determined by applying the depreciation rates prescribed by the nomenclature of assets, which were previously mentioned;
- The residual present value of fixed assets that are not used, but are fully depreciated;
- A part of depreciation by functional method over 10%. The changes made for the calculation of depreciation by the functional method have been deleted and take effect from 2021;
- Part of the interest on loans taken from creditors with the status of related parties over the amount of valid interest rates of commercial banks;
- Paid premium for life insurance for one calendar year, for employees and for the taxpayer who earns income from independent activity above the prescribed amount determined by the law. The recognized expenditures include the amount of up to 76.638 denars. If an amount is paid higher than

prescribed, than the tax base for the advance payment is the difference between overpaid premium and the amount of the premium.

Unrecognized expenditures = (Tax base for advance payment of tax X 11.1111%)  
+ Tax base for advance payment of tax

- Paid non-life insurance premiums
- Paid contributions in voluntary pension fund for one calendar year, for employees and for taxpayer who earns income from independent activity above the prescribed amount determined by law;
- Organized food and transportation to and from work, and other allowances above the prescribed amounts;
- Paid recourse for the annual leave over the amount prescribed by the General Collective Agreement for the private sector in the field of economy, branch collective agreements and collective agreement;
- Interest on loans for the purchase of a passenger cars;
- Reimbursement for using own car for officially purposes above the amount prescribed by the law (up to 3.500 denars per month);
- Fines, penalties and penalty interest for unpaid or late payment taxes, contributions and other public duties;
- Representation costs (in the amount of 90% are considered as unrecognized expenditures for tax purposes and this is a novelty that will take effect from 2021)
- Costs for using the cars and car maintenance and other means of transport of the taxpayer, costs for using rent-a-car vehicles, in the amount of 50% of the amount;
- Payment on the basis scholarships;
- The compensation for leasing the real estate as well as the amount of the compensation the costs related to leasing of the property of the employee when the compensation are paid by the employer;
- Other adjustment of expenditures (Institute of Accountants and Certified Accountants of RNM, 2020).

As 2020 was a year with a lot of accounting specifics regarding COVID – 19, in the order to other adjustments will include the costs incurred for



laboratory tests. Hence, the laboratory tests paid for COVID – 19 are not taxed in advance with personal income tax, for employees per year per employee in the amount of up to 9.000 denars.

Before determining the basis for calculating the tax, it is necessary to be shown the reduction of the tax base. This reduction can be done on the basis of investing in tangible assets in the amount of 30% of the investments that were made, but not more than 50% of the tax base ( in the practical example it is invested in computer equipment and software in the amount of 96.000 denars).

$$\begin{aligned} \text{Tax base} &= \text{Net income before tax} \\ &+ \text{Unrecognizer expenditures for tax purposes} \\ \text{Tax base} &= 586.775 + 0 \end{aligned}$$

(1)

The basis of calculating the tax is the difference between the tax base and the tax base deductions. What is new in the preparation of the Annual Tax Balance (Public Revenue Office of RNM, 2019) is that the calculation and payment of income tax on independent activity for 2020, 2021 and 2022 year will be done at a rate of 10% regardless of the amount of tax base. In the example the basis for calculation is 490.000 denars (586.775 – 96.000). Because in previous year the performer of independent activity is obligated to pay advance payments of the tax, for the tax period, calculating according to the previous year, the difference between the calculated annual payment tax and the advance payments is calculated and the value of the supplementary tax or overpaid tax is obtained.

### **3.4 Income structure by activities**

During the preparation of the Annual account for the performers of independent activity, two reports were previously mentioned, which are submitted to the Public Revenue Office of the Republic of North Macedonia. For the needs of the Central Register, the Income Statement and the Income Structure by activities are prepared. This financial report is submitted in order to see from which activities the company generates the income. Most often, the performers of independent activity have only one activity. Here, the main activities are accounting and tax consulting and therefore

the total income generated by 1.039.728 denars is recorded at code 69.20 accounting, bookkeeping and auditing; tax advice.

#### **4 Conclusion and discussion**

The main purpose of this paper is to understand the special form of compiling an annual account for performers of independent activity. According to the Macedonian legislation, there are numerous specifics that differentiate them in terms of other types of enterprises. In the Republic of North Macedonia there is a standardized way of preparing an Annual Account, depending on the type of categorized economic entity and the required forms in accordance with the prescribed law.

- According to the Law on Trade Companies, a sole proprietorship is a natural person who, in the form of occupation, performs any of the trade activities defined by this law. A sole proprietor is someone who owns an unincorporated business by himself or herself. A sole proprietorship also referred to as a sole trader or a proprietorship, is an unincorporated business that has just one owner who pays personal income tax on profits earned from the business. The sole proprietorship is liable for his obligations personally and unlimitedly with all his property.
- All performers of independent activity are obliged to keep accounting records and to prepare an annual accounting accordingly.
- Annual accounting submits all performers of independent activity, except those who are taxed on a lump sum basis meeting certain conditions prescribed by the law.
- The persons which submit an Annual account need to prepare the following forms: Income Statement (Statement of revenues and expenditures); Annual tax balance for determining the income tax from performing independent activity; Revenue structure by activities.
- In order to make a better interpretation of the composition of the report within in this paper are displayed the real data from the operation of the company registered as a sole proprietorship who keep accounting records on the principle of double entry bookkeeping.

- The basis for calculating the income tax from independent activity is the difference between the total revenue and the total expenditures of the taxpayer, increased by the unrecognized expenditures for tax purposes, in accordance with accounting regulation, accounting standards and provisions.
- What is new in the preparation of the Annual Tax Balance is that the calculation and payment of income tax on independent activity for 2020, 2021 and 2022 year will be done at a rate of 10% regardless of the amount of tax base.
- All data and rules that are incorporated in this paper are in accordance with the latest changes from February 2021.

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# UNIVERSITY BUSINESS ENGLISH COURSES REVISITED

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**Abstract** The unexpected transition from in-person to online teaching in the spring of 2020 took university language instructors off guard. The objective of my research is to show that adapting to the new-normal (i.e. unplanned shift to online teaching) had a ripple effect on teaching methods, learning goals, student motivation. The setting of the research is a Business English course at a university in Budapest (Hungary). The autoethnographic research I carried out provides personal reflections both on the objective elements of the course: needs, learning objectives, teaching material and methods and evaluation, and on the affective elements: student motivation and emotions. The findings show that adverse circumstances can force teachers and students not only to set more realistic learning goals, focusing on the most relevant and important materials, but by keeping standards high, to find a new form of motivation.

**Keywords:**

ESP,  
business  
english,  
online  
teaching,  
motivation,  
teaching  
methods

## 1 Introduction and Literature Review

### ESP course-design

Business English (BE) is a sub-genre of English for Specific Purposes (ESP), which is defined as the “language [that] is learnt not for its own sake or for the sake of gaining a general education, but to smooth the path to entry or greater linguistic efficiency in academic, professional or workplace environments” (Basturkmen, 2006, p. 18). This strong purpose determines the materials and methods used while teaching ESP. Both should be typical of the discipline (Dudley-Evans & St John, 1998). In case of BE it means focusing on genres, skills and discourse of business (e.g. reports, negotiations, meetings), and in terms of methodology, it means applying business-specific methods (e.g. case studies).

In order to meet learners’ professional needs effectively, ESP course design follows this sequence: needs analysis → setting learning goals → choosing the appropriate classroom materials and methods → evaluation (Anthony, 2018, Dudley-Evans & St John, 1998). Syllabus is either the outcome of such design (Brown, 2016), or an organic part of it: needs analysis → objectives → evaluation → syllabus → classroom activities (Woodrow, 2018). Although both sequences seem linear, they are actually cyclical in nature, signifying the need for constant re-evaluation and re-designing of the courses (Woodrow, 2018).

Needs analysis is the cornerstone of ESP course-design, giving direction to the whole course: “if there is no needs analysis, there is no ESP” (Brown, 2016 p. 5). Learner needs have to be investigated extensively and analyzed before the actual courses begin. But learner needs are not necessarily best defined by the learners themselves, especially in case of pre-experience university students. Apart from students, all who have interest in the curriculum (Brown, 2016): teachers, and other participants of the educational process, for instance, administrators, parents can be involved, and naturally, representatives of workplaces, field-experts as well.

Learning objectives translate learner needs to language skills and genres. Setting the learning objectives is basically a language instructor’s task, as it requires more than simply defining what language should be used in a certain workplace situation. It requires professional planning, as to how to sequence the tasks according to their

level of difficulty, and what learning strategies to suggest to students (Anthony, 2018).

The next stage is selecting the right course material and methods. Course materials fall into two categories: real and carrier materials. Real materials have clear pedagogic purposes, a language form to teach, vocabulary to present etc., whereas carrier materials serve as means to deliver the content (Basturkmen, 2010). Selecting up-to-date materials, personalised topics are difficult, and the process raises the issue of authenticity. “the presence of authentic materials in a classroom is no automatic guarantee of authenticity” (Belcher, 2009). First, because any authentic material will lose its authenticity when used out of context (Widdowson, 1979). Second, authentic materials are meant for native speakers, or speakers of near-native language skills, cultural background, similar education, etc. Language learners may find inside jokes, cultural references, and allusions difficult to understand until they reach a high command of the language.

When it comes to choosing the right method, ESP instructors tend to adapt to their students’ preferences. Two reasons can be mentioned here: most learners of ESP are adults, or university students, who are experienced language learners, having their preferred learning strategies (Woodrow, 2018). Second, there is a pressure both on teachers and students to achieve the learning goals as soon as possible, especially in case of in-company courses. Therefore ESP instructors chose the most effective methods depending on their learners’ needs and preferences (Anthony, 2018).

Evaluation in ESP course design involves evaluating the students, the teacher, and the effectiveness of the course. There are two aspects to consider: students’ perception of effectiveness, and objective measuring by administering tests to see if they have actually learned anything from the course (Basturkmen, 2010). Course evaluation is problematic because its actual effectiveness can be measured months after the course has finished, in a real target situation (Basturkmen, 2010).

Depending on the results of the evaluation process, new needs have to be defined, new learning goals need to be set, which means selecting course material, and finding new methodology. We have come full circle.

## **ESP learners**

Ideally, ESP learners are goal-driven, motivated as they know the purpose of learning ESP. This motivation is best described as instrumental, though some label it extrinsic (Woodrow, 2018). This very strong instrumental motivation can explain why needs analysis is at the heart of an effective course design (Long, 2005). In ESP courses learner needs are in the center: these will define the materials and the methods used by teachers, which enhances learner motivation. Consequently, learners can become demotivated if they perceive the classroom material irrelevant (Basturkmen, 2010).

## **2 Background**

The research was conducted at a university where I have been teaching two BE groups of 19-20 first-year students of Commerce and Marketing. The students have roughly the same level of proficiency, B2-C1 level (CEFR). They started their studies in September 2020. Both groups have had two contact-hours a week, each lasting 90 minutes. The attendance is obligatory, and the course grade is based on quality of mid-term tests, and overall performance.

The courses started in person back in September 2020, but as the cases of Covid-19 increased, the Hungarian government issued a regulation in early November, ordering all higher-education institutes to go online. The pandemic has not ceased therefore the regulation was not lifted yet (it is now April 2021), and the academic year will be completed online.

Several students were affected by pandemic, many lost their jobs, their sources to finance their studies, they were rendered isolated that critically affected their emotional well-being, many got infected, had family members fall seriously ill, some experienced losses. All these factors have had considerable influence on students' motivation, and their attitude to learning.

In my paper I formulated two research questions:

How did the sudden shift to online teaching affect the business English courses?  
How have the students' attitude and motivation changed over the academic year 2020/21?



### **3 Method**

I applied autoethnography as a qualitative research method to address the research questions above analyzing my personal reflections (as primary source), and my students' feedback (as secondary source). The students were asked to answer open-ended questions about the course in English. The response rate was 59% (N=22/39). The two data sources will complement each other aiming to give a valid interpretation of an unusual situation. The original aim of autoethnography is to analyze personal experience to provide an insight into cultural experience (Ellis, 2011). The fact that this unplanned transition from in-person to online teaching affected all higher-educational institutions not only nationwide but worldwide as well, and the fact that it was a protective measure to keep teachers and students safe from infection, will make the findings of the present qualitative research transferable.

### **4 Findings**

In this part I will discuss how I managed to adapt the existing course-design to the new normal, and what conscious and unconscious changes occurred. I will go through the four pillars of ESP teaching, needs analysis, learning objectives, teaching material and method, and evaluation, then I will discuss changes in students' motivation. At the end of each part there are some quotes from the students to illustrate their views.

### **5 Needs redefined**

When we went online, I had to reassess the learner needs of our BE course: what needs can be met in spite of the different circumstances, and what needs cannot. Also, what new learner needs can be met only in the online teaching that otherwise cannot be met in the classroom. There are more than ten methods for analyzing ESP learners' needs, and I opted for the target-situation analysis (Brown, 2016), that is, visualizing the future workplace situations where students have to use English. However temporary online teaching may seem to us, it is quite possible that my students will work in an international business environment where they will have to work online on a regular basis. Therefore I selected the following needs: online discussion and collaboration with colleagues, giving online presentations, collecting, organizing and summarizing information, negotiating.

When selecting and rejecting needs, I had to take into consideration the technical constraints: unstable internet connection, malfunctioning microphones, smartphones with small screens and fewer functions than a laptop, and lack of cameras. These problems, and their adjustment would take up a considerable amount of time, making our classes shorter and less dynamic.

What did the students say?

I think, we learn more briefly and more useful things, the tasks and tests are well organized and well accomplished.

I have been learning about new things like interviews which will be really helpful in the future.

## **6 New learning objectives**

After selecting the needs, the corresponding learning objectives had to be set. My criterion for selection was relevance. I knew that retaining students' attention is extremely difficult in an online class, therefore I kept emphasizing why a certain task or skill would be relevant for them in their future career.

We focused on presentation and negotiation skills, case studies, job interviews, writing a cover letter and a report, discussing leadership skills, and methods for team-building. From language learning point of view it meant that there were a lot of off-line reading assignments, which did not go down well at the beginning, but when I explained my business English students that reading and speaking are the two most needed language skills in workplaces (Cambridge English, 2016), reading was seen as a relevant skill to develop.

Negotiations and job interviews were done in the online classes but required preparation. Therefore students needed to collaborate with negotiating partners, and discuss the interview questions with the other panel members before the task was due.

Writing skills were also improved, and the tasks were selected on the basis of relevance. For instance, in the job application process, candidates were required to write a cover letter for an actual job opening (which they had to find on the internet), and panel members were requested to write a report after conducting the job interviews.

Giving online presentation was a new genre for the students and me. Learning the do's and don'ts was a beneficial, and long-term investment for the students, and quite useful for me, because most ideas could be transferred to online teaching.

What did the students say?

I gained lot of helpful information about online stuff, like efficient communication over teams, or fulfilling online tests and tasks, moreover I am more confident because of nobody sees me.

We have to do a lot of tasks in teams so I would say I can work better with others but at the same time I feel like I can't really cooperate well. But I had the opportunity to talk with a lot of people during these tasks and I feel like I have a great relationship with most of them and it is a very important thing for me.

## **7 Teaching materials and methods**

When it came to selecting materials, there were two considerations: simplicity and accessibility. Therefore we used our set coursebook, Market Leader (Cotton et al., 2011) to as much extent as possible, and I uploaded online materials (tasks, videos, texts) to our common online platform in a clear and organized way.

Online learning has caused dramatic change in students' access to materials during classes or test-writing. It made our teacher-student relationship more equal, as they had access to the same sources, websites as I did. This resulted me not administering tests on vocabulary of any form of factual knowledge. I opted for questions which required using critical thinking skills, creativity, problem solving for which the Internet could provide background information but not the final answer.

We also had lively debates, and actually I doubt if in the classroom they would have been that enjoyable. The fact that we could hear each other equally well (or badly), that anyone could speak without being seen (no one used the camera but me) had a liberating effect.

As a teacher I learned that high quality materials, both spoken and written, and carefully selected, appropriate methods can achieve the same positive effect as classroom teaching.

What did the students say?

I feel like You have tried you best to bring the same quality of learning online, I didn't feel like much have changed in this class, of course when we were offline we could talk more directly but overall the quality and the fun is still there.

The lesson itself hasn't really changed, the theme we need to learn and practice has also stayed the same, the tasks have become a little bit challenging since we are not in a physical contact.

## **8 Evaluation in progress**

As I mentioned earlier, ESP course evaluation can be done by collecting feedback from the students, and also by making students write a diagnostic test at the beginning and an achievement test at the end of the course. The course has not finished yet, but I have collected some feedback from the students. The answers reveal that online learning improved their speaking skills and helped to fight their inhibition.

What did the students say?

Lots of lots of words actually. I used grammar and speaking pretty confidently but I learned a lots of new words here. I got a lot of experience not in speaking but how to speak properly.

I have learnt a lot about the business side of English and I think I am a bit more confident when it comes to speaking.

I think this class has the most fun and good vibe atmosphere at all, we can work in groups and we can talk to each other LIVE. I mean LIVE, and I'm glad I can hear other people voices.

## **9 Changing attitude and motivation**

If there is one word that would aptly describe our attitude to online teaching, it is 'fluctuating'. What first only seemed a technical challenge turned into a sense of achievement: we learned how to use online tools. When our hopes of going back to the classroom were dashed, we felt desperate, and as more of our friends, family members fell ill due to the Covid-19, we felt bereaved, and no online game was able to take our mind off our solitude and loss. Now, in the middle of April, as the academic year is coming to an end our spirits are lifted. We learned to appreciate our discussions, we enjoy hearing each other's voice.

One potential negative effect of online learning is making students demotivated. One suggestion to this problem is that students need to be self-motivated (Kishnapatria, 2020). I find it quite controversial, because most business students' instrumental motivation is rooted in the hope that they would find a job in their field. This is not the case now.

During my teaching career I have equipped myself with a wide array of motivational tools. I know how to motivate the lazy, the shy, the tired, the anxious. But I did not know how to help those whose heart is heavy. Mercy is a new concept in my teaching practice. Mercy overrules motivation, because it does not ask students to pretend and behave as if everything was just normal, when they are emotionally drained. If they just attend the classes doing the bare minimum, and do not quit, I can hope that one day their motivation will return. Meanwhile, I show mercy.

What did the students say?

a) How did you feel...?

in November 2020

*I felt sad.*

*Excited, enthusiastic*

*I was really sad, because I loved to go to the uni.*

in February 2021

*I felt even more sad.*

*Sorrowful*

*I was disappointed.*

now, in April 2021

*I feel bored because every day is the same.*

*Thoughtful, excited*

*I am feeling okay right now, but I really want to go back to the university, or offline.*

b) How has your attitude changed?

*Less motivation, less focus.*

*At some point I am more motivated, because I don't have to travel more than 2 hours per day, but some days I don't have any motivation.*

*Sometimes I feel like I have become too comfortable at home, sometimes it is harder to get myself to learn. Homework and projects are helping me to keep motivated and dive into the materials.*

*I think this class has the most fun and good vibe atmosphere at all, we can work in groups and we can talk to each other LIVE. I mean LIVE, and I'm glad I can hear other people voices.*

c) How do you see your teacher?

*She is very kind, very helpful and very understanding. I think she sees the situation of her students and understands it and she is trying to do her best to teach us the things we will really need in our future life and she is trying to help where she can.*

## 10 Conclusion

Redesigning our courses in the face of a pandemic has taught me valuable lessons. I could define the most relevant aspects and goals of a business English course, which enabled me to find the real purpose of it.

When one of my most motivated students complained that he had lost all his motivation, and he did not know why to study, I told him that we were studying because we had a purpose, and our efforts were not in vain. What we were doing would equip him with skills necessary for his future job awaiting him after the pandemic.

*“If you have your why for life, you can get by with almost any how.”*  
— Friedrich Nietzsche

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# SPIN OFFS ACTIVITIES AND TECHNOLOGY COMMERCIALIZATION POLICY AT EUROPEAN UNIVERSITIES

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**Abstract** In the modern world, the goals of higher education - the implementation of teaching and research – added economic development through the technology which is the result of university research. These are among the issues that are actively discussed by development-oriented economies today. The subject of this paper is the innovation policy of universities. Based on the case-study method, the European experience in the formation of a university spin-off company and the main features of the commercialization of university technology are analyzed. The research revealed the main measures of the innovation strategy of the universities, which promote the strong cooperation between the university, the state and the commercial sector. The results of the study can be used in the development and implementation of successful national and university innovation policies.

**Keywords:**

innovation,  
university  
spin  
off,  
technology  
commercialization,  
university  
invention,  
knowledge  
transfer.

## 1 Introduction

Actuality of the problem: In terms of Globalization, the interest in developing an effective innovation policy within and outside the EU is growing. At the same time, the rapid and leapfrog development of the world economy is linked to the Fourth Industrial Revolution. Although, World-renowned research organizations predicted that scientific research will not replace artificial intelligence (Gagnidze & Maisuradze, 2016). The importance of innovation policy is widely recognized in terms of competitiveness and industry development. Globalization has made technology and innovation the main and driving force of the national competitiveness strategy (Erkomaishvili, 2016).

It is noteworthy that, developing countries take into account the experiences of advanced developed countries in solving various problems, including education, science and economics. Although, they must not forget that they face different challenges in the fields. If the main challenge for advanced European, Asian and American universities is to increase international competitiveness, this issue for developing country like Georgia, can only be considered after our universities return to leadership in establishing and strengthening public values and supporting national economic development. So, before turning into an entrepreneurial university, it is necessary to intensify teaching and research and strengthen the social function of universities (Lekashvili, 2017).

The results of the research - "The Role of Universities in Regional Development" (Bregvadze, Gurchiani, Grdzeldze, & Kakhidze, 2017) conducted within the Erasmus + National Office in Georgia, as well as the results of a survey conducted by the International Institute for Education Policy, Planning and Management (2013) provide important information about the attitudes of business, central and local governmental, non-governmental organizations on universities in Georgia. Unfortunately, the researches show, that it is difficult for universities to see their own role in integrating innovation, creating new knowledge, and commercializing research within the framework of the regional development strategy. In their view, the role of universities is ensuring mainly access to education and the formation of a workforce relevant to market demands. It is even more painful to grasp the conclusions that are expressed about the issue of cooperation with HEIs, which at

this stage is at the private, non-institutional level. Business relations with universities are very difficult. They are financially inflexible and have lack of initiations.

In modern conditions, universities as economic players are important: direct and indirect impact on jobs and GDP, regional and local development, mainly through the transfer of knowledge and technology, in cooperation with industry. The new strategy of universities should be based on the development of close ties with the economy, for which universities have only one way: to change the strategy of action - especially in the field of research and development, innovation, which involves the development and implementation of relevant innovative policies.

Based on the above, it is important to study succeeded foreign cases of university innovation policy and identify the determinants of success, which will show us the development opportunities of Georgian universities.

There are three main types of national innovation policies - focused on mission, invention and system (Edler & Fagerberg, 2017). The goal of the mission-oriented innovation policy is to find new ways to solve both global and local problems, the development and solution of which requires a certain combination of relevant resources (Mazzucato, 2018). Invention-oriented policies focus on a narrow area of research. The focus is on research and development (R&D) and on the possibilities of using and disseminating the results obtained from it in the market. System-oriented policies focus on system characteristics such as: degree of interaction between different parts of the system; The need to improve its vital components and / or increase the capacity of system participants. It is related to the concept of the National Innovation System (NIS). Such a systematic approach reflects the diversity of policy participants and the interactions between them are schematically conveyed through a five - spiral model (Carayannis, Barth, & Campbell, 2012). Each spiral involved in the model is unique and represents an important asset of innovation policy, namely: 1. The education system; 2. Economic system; 3. Environment; 4. A society based on media and culture; 5. Political system. The subject of our research is University - one of the main actors of innovation policy and an asset involved in the five-spiral model.

The research cooperation of the universities with the public and commercial sectors is conditioned by the ongoing processes in the market. Studies need to be adapted to the needs of rapidly growing innovative technology markets (Lekashvili, 2019). It is beneficial to work in an environment where technological innovation is stimulated. Enterprises that cannot find such environment need special efforts to eliminate this blemish (Gvelesiani, 2015).

In such case, the enterprise may apply to the university for assistance and / or cooperation. The value created in the form of a technological product and / or service based on the university resources, which is aimed at solving a specific problem, creates the need for commercialization of scientific knowledge. This can be achieved by setting up a university Spin Off and / or by issuing licenses through technology transfer centers.

Aim and objectives of the research: The aim of the research is to study the international experience for the development of recommendations for the commercialization policy of Georgian universities. Based on the goal, the following tasks were set: 1. Determining the essence and importance of the University Spin Off Company; 2. Discuss the theoretical guidelines for the formation of a university spin-off and identify the main features; 3. Study of foreign experience and formulation of conclusions and main findings based on it.

Specific universities from EU countries (Brussels (ULB - Belgium), Dublin (UCD - Ireland), Tartu (UOT - Estonia), Kaunas (KTU-Lithuania), West Bohemia (UWB - Czech Republic) and Ljubljana (UL - Slovenia) were selected as the object of research. They actively cooperate with Iv. Javakhishvili Tbilisi State University (Georgia) and at the same time is distinguished by a successful innovation policy. This selection shows the differences that exist in the direction of the formation of innovation policies of universities and at the same time creates the opportunity to share the experience accumulated by the target universities.

The study contributes to the existing research in successful university spin-offs. The approaches that characterize European University innovation/ commercialization policies are clearly defined, which may differ from American or Asian approaches.

The information data is diverse and combines the theoretical and applied works of foreign economists; Studies and publications of various international organizations. In the process of information processing, the introduction of relevant Georgian terminology related to innovation was introduced. It is a carrier of marketing content and accordingly is presented in the text in this form, including: 1. Scientific entrepreneur (Academic entrepreneur - surrogate entrepreneur); 2. Internet technology of items (Internet of Things - IoT - connected devices, sensors and activator networks); 3. Centers of Excellence (Centers of Excellence - research laboratories with a high degree of competence); 4. The Country of Excellence. 5. Excellence of Science. Data analysis, synthesis, comparison, deduction and induction methods were used for the study of the present paper. From a methodological point of view, the evaluation of universities' innovation policies was carried out according to three models of university spin-off forms.

## **2 Theoretical Background**

In the 21st century the main mission of the University, based on the target universities is implementation of teaching (theory) and research (fundamental, applied and developmental). Research and teaching can be considered achievable when created value is based on the university resource: in the form of a technological product and / or service, which creates the need to commercialize scientific knowledge.

Based on the university invention, it is possible to: 1. Create an independent organization in the form of a university spin-off and / or 2. Find an organization in the market that will be ready to acquire it. Such activities contribute to the commercialization of university technologies and the opportunity for economic development. There are many successful examples of university spin-offs in the United States, including Silicon Valley and Route 128, which developed on the basis of the prestigious Stanford and Massachusetts Universities of Technology.

There is no common universally accepted definition of a university spin, as we see various definitions of it, suggested by scholars at various times (Phan & Siegel, 2006) (Klofsten & Dylan, 2000) (Bellini, et al., 1999) (Weatherston, 1995) (Klofsten & Dylan, 2000) (Lockett, Siegel, Wright, & Ensley, 2005). Based on the proposed variety of definitions, we can conclude that the University Spin Off is an

organization based on research conducted on the basis of the university, and its future development is worked on by representatives of the same university: lecturers, current students or alumni. Its purpose is to meet market demands based on the commercialization of research results. University Spin Offs, technology transfer centers, etc. are the tools of the University Innovation Policy. The main goal of the University Innovation Policy is the creation and use of technology for economic development.

The university spin-off technology involves an inventor in the commercialization process, which is an important precondition for the development of a university technology product and / or service (Hindle & Yencken, 2004) (Jensen & Thursby, 1998). The process of creating technology by the university is complex and requires high involvement / funding from the government, industry and / or investors (stakeholders) (further used to support research in science and engineering).

There are the three most common models of university spin-offs. In particular:

1. The first model combines four important stages of creating a spin-off, namely:
  1. Generating a valuable business idea based on research,
  2. Transforming an idea into a business,
  3. Creating a spin-off firm,
  4. Generating economic value through a spin-off firm (Ndonzuau, Pirnay, & Surlemont, 2002);
2. The second model combines the five stages of creating a university spin-off (Shane, 2004):
  1. Research. The university uses funding from both state and private companies to conduct research. The main purpose of this stage is to create new scientific knowledge and not the interest of its commercialization.
  2. Invention. If new knowledge is considered to enable the formation of new technology, then the University Technology Transfer Office will be activated.
  3. Protection of intellectual property. In some cases, researchers believe that their new technology is an invention that must be commercialized. At this point, the university must apply for a patent and work on a license in the future.
  4. Technology Marketing. The University Technology Transfer Office is looking for a company in the private sector that is interested in licensing and commercializing similar types of technology. If a new firm is formed to obtain a license, it means that a university spin-off is being set up.
  5. Technology licensing. The last step is to determine what type of license should be issued: exclusive or non-exclusive.

3. The third model shows the five phases of university spin-off development and the separation of four critical points (Lockett, Siegel, Wright, & Ensley, 2005). In particular: 1. Research; 2. Capabilities; 3. Pre-organizational; 4. Phases of re-orientation and 5. Sustainability. According to the authors, critical points arise when moving between phases, creating the need for additional resources and capabilities, namely: 1. Capacity recognition; 2. Entrepreneurial obligation; 3. Achieving credibility in the business environment and 4. Sustainability.

After Overcoming the critical phases can create a spin-off. If the research identifies the opportunities that meet the market demands, it is possible to form a new technology.

The next critical node is the entrepreneurial commitment, which requires the academic-entrepreneur to expand his/her business activities. A common characteristic of academics is the unacceptability of uncertain situations created by the commercial environment. Most of them find it difficult to delegate or share responsibilities when it comes to commercializing their intellectual property.

Attracting sufficient funding at the pre-organization stage is a key requirement for acquiring the necessary resources. Finance is the main resource without which the formation process cannot be continued / completed, and the last critical node is - sustainability: if the academic community cannot

show that it has the ability to trade, then there is a risk of losing financial investment and potential market share. Ultimately, risky university spin-offs need sustainable returns to survive. When this barrier is overcome, the process of creating a university Spin Off is completed.

A holistic (multi-stage) model for the creation of a university spin-off in 2007 was added to these models. Compared to the models discussed above, this model relies on capabilities (Newbert, 2007). Newbert notes that capabilities act as preconditions in any research setting. The model focuses on issues such as:

- Intellectual Property (IP) rights. The IP system affects the degree of involvement of researchers and universities in patent and commercial

activities. For example, in the US since 1980 works the so-called Bayh-Dole Act (the 96th United States Congress, 1980), which gives universities the right to intellectual property. Such an approach can encourage patent and licensing activities on university inventions.

- Research and development (R&D) and other investments in innovation. Entrepreneurship cooperation with universities has practical importance. This form of cooperation enables the business sector to compensate for limited internal resources in both innovative and highly skilled workforces.
- The market simplifies the process of commercialization of inventions for technologies and the quality of cooperation with companies. Universities today are the suppliers of the latest technologies in the market. As Prof. In countries characterized by political, legal and macroeconomic instability, firms prefer to focus on solving short-term tasks. This creates a technological trap where the firm prefers to use outdated technology (Papava, 2020).
- Business support infrastructure such as incubators, knowledge transfer centers, science parks, etc. allows university spin-offs to market and commercialize ideas.

Thus, based on the theory, we can distinguish the following features typical of university spin-offs: 1. The university or academic institution is the creator of innovation; 2. The University Spin Off is a body legally separated from the University, an independent legal entity and not a controlled body; 3. The spin-off uses knowledge that is derived from academic activities and / or is the result of academic activity; 4. The purpose of the spin-offs is to generate benefits and commercialize technology.

### **3 Conclusions and Key Findings**

The review of foreign experience has shown that universities' innovation policies are focused on addressing issues such as: joint research projects; University consulting activities; Opportunities for collaboration between creators and users of new knowledge; Knowledge creation - by publishing research results and obtaining intellectual property rights; Entrepreneurial activities of faculties and students (Spin-offs, incubators, technology transfer centers); Mobility of highly-qualified students from universities to the private sector and vice versa.



As we have seen, the goal of innovation policy in universities is to transform existing academic knowledge into a valuable technological product and / or service. The main means of achieving this goal are: university spin-offs, patent and licensing activities. At the same time, the target directions for innovation activities are defined. The successful implementation of the goal depends on: 1. the legal framework that gives universities the right to intellectual property; 2. Existence of research infrastructure, including incubators, accelerators, technological laboratories, knowledge transfer centers; 3. Access to financial resources, which integrates the finances of government, university, commercial and international institutions. All this is directed not only to the implementation of research but also to their future development; To the human resources created by the university itself (raising the qualification is a priority); To strengthen interdisciplinary connections, to integrate knowledge and experience in different areas in the best way and to solve the existing problem.

In this paper, we present several models of university Spin Offs formation. One of the models discussed, does not name a study phase as an initial stage, it is important for the next two, and for the fourth model. The initial stage is to identify capabilities and competencies. As we know, research is done to solve a certain problem, so research planning is preceded by the issue of problem solving. Therefore, the first stage of Spin Off formation is to identify the problem; Second stage: problem research (fundamental or applied) and generating new academic knowledge (identifying capabilities and competencies); Third stage: transformation of the opportunity defined in the second stage into innovation (at this stage the university research infrastructure is involved: incubator, accelerator, technology park); Fourth stage: protection of intellectual property and announcement of innovation (technology transfer center is involved. At this stage, it is determined whether a spin-off will be formed or the created technology will be licensed); Fifth stage: Generating economic value.

In turn, the degree of incentive for university technology depends on how the national innovation system is structured and how well it can ensure collaborative relationships between different stakeholders and the science sector. Other knowledge flows such as informal contacts, consultations are actively used in the knowledge transfer process.

As we have seen, academic knowledge is transformed into innovation in such a way that we either face a new combination of existing knowledge or create a whole new one that is geared towards solving a specific problem. The part of the business sector that collaborates with the university remains profitable because it has the opportunity to use research results from higher education systems or research centers

and laboratories as a source for potential innovation or product development. And knowledge transfer mechanisms such as patents, technology licenses and research collaborations, on the one hand, make the enterprise competitive and, on the other hand, the main goal of the university's innovation policy - to transform knowledge into innovation and increase economic and social prosperity based on it. The human resources used in this process, again provided by the university, determine the pace of further development of the country.

Benefits of joint projects include access to highly qualified human resources and the emergence of new opportunities, different approaches to solve existing problems based on them. Access to university research and discoveries and the development of their commercial potential are based on the innovative activities carried out by the companies by the University. Access to scientific knowledge increases the firm's ability to find, assimilate technological information and ensure its use in real space.

The potential benefits we derive from the University's innovation activities, which are largely generated through collaboration, may be reduced due to a number of factors, including inadequate infrastructure for knowledge generation and transfer (university and science parks), firms' inability to absorb new knowledge and low conversion ability).

It is important to focus on providing a legal and administrative framework that encourages universities to commercialize intellectual property. Researchers need to be stimulated / trained to be able to generate their own ideas and develop inventions. Collaborative processes between the university, business and the public sector make a great contribution to achieving this. Joint activities facilitate the formation of institutions such as: technology transfer offices, business innovation centers, science parks and technology hubs, government-sponsored patent funds, etc. Joint large-

scale projects are also being set up to ensure diversity of participants and strengthen links between disciplines.

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# TOWARDS A SUSTAINABLE RESET IN THE EU. WHAT COMES AFTER THE LISBON STRATEGY, EUROPE 2020 AND ... COVID-19?

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**Abstract** The aim of the paper is to present and compare the three major European Union (EU) strategies/instruments designed to promote the dynamic economic development of the EU. Since the beginning of the 21st century, the EU has clearly demonstrated its ambitions related to economic growth, competitiveness and sustainability. Despite the progressive ideas reflected in the Lisbon Strategy, its limitations have logically resulted in only partial success. The 2008 world economic crisis has led to important changes, reflected in the Europe 2020 Strategy, but – despite certain progress – no spectacular success was seen. 2020 will not be remembered as the closing year of the Europe 2020 Strategy, but as the (first) year of the world-wide shock caused by the COVID-19 pandemic. The changes caused by this shock can be seen in EU actions, as well: the Next Generation EU instrument is an innovation that could not have been imagined without such a shock. The paper discusses the potential ways of changes of the EU's approach to the objectives of economic growth, competitiveness and sustainability as a result of the COVID-19 shock.

**Keywords:**

European Union, Lisbon strategy, Europe 2020 strategy, COVID-19, next generation EU

## 1 Introduction

The European integration process is an ambitious endeavour. It has shown spectacular progress in many areas of life during the seven decades from its beginning (the launch of the European Coal and Steel Community), and it has survived a number of – smaller and bigger – crises. In this – overall successful – development, the definition of the mission of the endeavour, a vision of its future has always played a crucial role. This has contributed, among others, to the reconciliation of previous enemies, the rapid construction of the customs union, the realization of the single market or the introduction of the single currency.

Despite the achievements, the European Union (EU) Member States remained ambitious in fields where progress has been less visible or where new challenges endanger the previous results. In the 21<sup>st</sup> century, due to a shift in the world economy (first of all, but not only, due to the rise of China), the issue of economic competitiveness has come into focus. From 2000, the Lisbon Strategy has been launched, with the declared objective to make the EU the most competitive region of the world by 2010. It was followed by the Europe 2020 Strategy, intending to provide an efficient response to the world financial and economic crisis as well as to the increasingly important aspects of sustainability. These strategies had limited success, but in 2020, there was no possibility for a thorough discussion and a redesign: the COVID-19 pandemic has changed everything. In 2020, the EU has adopted the Next Generation EU recovery plan, which is in many aspects different from the two above-mentioned strategies. In the present situation, it is far more important to have an effective instrument than before.

In this paper, we discuss the logic of the Lisbon and Europe 2020 strategies and compare it to that of Next Generation EU. Based on this analysis, we identify the points that indicate potential ways of changes of the EU's overall approach to the objectives of economic growth, competitiveness and sustainability – as a result of the COVID-19 shock. These changes can be decisive for the future development path of the European integration, including the possibility of development into the direction of a (con)federation; the potential effects are discussed in the concluding remarks.

## **2 The Lisbon Strategy: High Ambitions Without Real Instruments**

The Lisbon Strategy has been announced in 2000 and it has containing some exactly quantified objectives for 2010. The objectives have been highly ambitious – among others, the strategy has foreseen the development of the EU into the world’s most competitive region within just a decade. The strategy was based on three pillars: an economic, a social and an environmental one. Beyond improving competitiveness, it has also aimed at substantial progress in the level of employment and social cohesion.<sup>1</sup>

Despite the relevance of the objectives, the novelty and the ambitions of the Lisbon Strategy, it has been a huge practical problem that it lacked substantial EU level instruments for its realisation. Creating such instruments has not even been an intention of the EU<sup>2</sup>: the execution of the strategy has been the task of the Member States. The EU level coordination of the actions has remained limited; its main instrument has been the so-called open method of coordination (OMC), the efficiency of which has later been frequently questioned.<sup>3</sup> As a result of a mid-term review based first of all on the findings of the so-called Kok Report (High Level Group chaired by Wim Kok, 2004), several changes have been introduced for the second half of the strategy’s lifetime.<sup>4</sup> Despite the changes, national economic policy actions (reflected in the so-called National reform Programmes) have been central; though coordination has been eased and the possibility of corrections have been made easier, the views on the effectiveness of the renewed Lisbon Strategy are diverging. Any clear position is difficult to prove as the renewed Lisbon Strategy did not enjoy a long “calm” period: since 2008, the world financial and economic crisis has overwritten all previous expectations and scenarios. One thing, however, was clear: not surprisingly, the EU failed to become the most competitive region of the world by 2010.

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<sup>1</sup> „The Union has today set itself a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion” (European Council, 2000).

<sup>2</sup> „No new process is needed. The existing Broad Economic Policy Guidelines and the Luxembourg, Cardiff and Cologne processes offer the necessary instruments, provided they are simplified and better coordinated, in particular through other Council formations contributing to the preparation by the ECOFIN Council of the Broad Economic Policy Guidelines” (European Council, 2000).

<sup>3</sup> For details on the OMC and on related critics, see Prpic, 2014.

<sup>4</sup> For a description of the changes, see European Council, 2005.

The world financial and economic crisis has speeded up the reflection on a fundamental reform of the Lisbon Strategy (which would have expired in 2010 anyway); the result of the reflection (including a period of public consultation) was the birth of the Europe 2020 Strategy.

### **3 Europe 2020: More Structured, More Realistic**

The Europe 2020 Strategy has been made public by the European Commission in March 2010 (European Commission, 2010). Its novelty consisted in its coherent structure, including three overarching priorities (smart growth; sustainable growth; inclusive growth), objectives (actualized and more numerous than in the Lisbon Strategy) and seven so-called flagship initiatives<sup>5</sup>. The strategy has been finalised and approved on 17 June 2010 by the European Council (European Council, 2010).

According to the European Commission's recommendation, Member States should "translate" the EU level objectives into national objectives and tracks (European Commission, 2010, p. 3) – the approach shows continuity with the reformed Lisbon Strategy. The main questions have also remained the same: are the objectives realistic, and does the system allow for adequate flexibility?

Initially, some changes gave ground for optimism. The Europe 2020 Strategy took the international environment much more and in a much more realistic way into account than its predecessor. Thus, it has been more embedded into the global processes, and it had a positive effect on the seven flagship initiatives constituting its main specific and issue-oriented tools. The flagship initiatives covered fields that were all related both to traditional EU policies and to the priorities of the Europe 2020 Strategy. This coherent approach promised better chances for coordinated action than the Lisbon Strategy.

Under Europe 2020, the tasks continued to be shared by EU and national institutions. The integration of national stability and convergence programmes as well as national reform programmes into the national budgetary processes and into the European Semester increased the coherence of the strategy. A close link with

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<sup>5</sup> The seven flagship initiatives have been the following: Innovation Union, Youth on the move; A digital agenda for Europe; Resource efficient Europe; An industrial policy for the globalisation era; An agenda for new skills and jobs; European platform against poverty.



the EU's Multiannual Financial Framework (MFF) has also been established: the European Commission's initial proposal for the MFF 2014–2020 had the title “A budget for Europe 2020” (European Commission, 2011). Despite the clear references to the Europe 2020 priorities in the budget expenditure headings, there were no extra amounts dedicated to the strategy; the logic was that the strategy-related aspects need to be present in the case of the (mainly traditional) expenditure items. This has, of course, limited the potential of the strategy; still, the fact that the EU budget was very closely tied to the Europe 2020 Strategy was an important novelty.

However, all this was by far not enough for a breakthrough. In most of the 2010s, Europe had to concentrate on some major issues: the Greek crisis (and related other crises in the periphery of the Eurozone), massive migration and divides between Member States regarding the policy to follow, the Brexit and, consequently, the revitalizing of the European integration process. And, at the end of this turbulent decade, 2020 was not the year of a thorough assessment of the results of the Europe 2020 Strategy but of the confrontation with a challenge unseen in the modern history of Europe: COVID-19.

#### **4 Next Generation EU: Radical Response to an Unforeseen Major Challenge**

The COVID-19 pandemic hit the world, including Europe early 2020. The first measures have been taken on the national (or in some cases, even subnational) level, but the need for joint, EU level action has been clear from the beginning. The fact that the 2021–2027 MFF was still under discussion has provided a good opportunity for planning the expenditure related to the economic reconstruction after the pandemic.

A joint roadmap for recovery was presented by the presidents of the European Commission and the European Council on 21 April 2020 (European Commission and European Council, 2020). Among other measures, the document has declared the need for a Marshall-plan type measure, “An Unprecedented Investment Effort”, underlining the role of the next MFF and the EIB group in its realization (European Commission and European Council, 2020, p. 4). Two days later, the members of the European Council have agreed on working towards the creation of an EU recovery

fund, asking the European Commission to make a proposal in this respect, clarifying also the relationship between the fund and the next MFF (European Council, 2020a). After a long series of negotiations (related not only to the fund, but to the entire MFF), EU leaders have reached agreement on the recovery package and on the MFF during the Special European Council, 17-21 July 2020. This meant green light for a of €1824.3 bn (on 2018 prices) – a size not seen before – combining the amount in the MFF (€ 1074.3 bn) and the amount available for the Next Generation EU (NGEU) instrument (€ 750 bn) (Council of the European Union, 2020). Following the European Parliament’s consent the day before, the Council has adopted the regulation for the MFF (together with the Next Generation EU recovery instrument) for 2021–2027 on 17 December 2021. (Council of the European Union, 2020).

The most important novelty – a totally new element in the history of the EU – is described in the following paragraphs of the Conclusions of the Special European Council:

*“A5. For NGEU the Commission shall be empowered in the Own Resources Decision to borrow funds on the capital markets on behalf of the Union up to the amount of EUR 750 billion in 2018 prices; new net borrowing activity will stop at the latest at the end of 2026. The Union shall use the funds borrowed on the capital markets for the sole purpose of addressing the consequences of the COVID-19 crisis.*

*A6. The funds borrowed may be used for loans up to an amount of EUR 360 billion in 2018 prices and for expenditure up to an amount of EUR 390 billion in 2018 prices.*

*A7. The repayment shall be scheduled, in accordance with the principle of sound financial management, so as to ensure the steady and predictable reduction in liabilities until 31 December 2058. (...)*” (European Council, 2020, p. 3.)

As it can be seen from the above phrases, the endeavour includes a long-term joint borrowing activity of the Member States: before the present situation joint borrowing has been something not even open for serious discussion, while “long-term” in the sense that it can mean financial obligations for up to almost four decades from now, is also a novelty. Adding these two aspects to the already mentioned fact that for the period 2021–2027, the EU will have about €1.8bn (close to 1.8% of its GNI (compared to ca. 1% of GNI in the two previous MFFs), it is

clear that the EU has made a big jump forward. In Table 1, we can see some of the main features of the Lisbon Strategy, the Europe 2020 Strategy and the Next Generation EU.

**Table 1: The Lisbon Strategy, the Europe 2020 Strategy and the Next Generation EU – a comparison**

	Lisbon Strategy	Europe 2020 Strategy	Next Generation EU
<b>Main reason for action</b>	Increasing competition	Increasing competition + the effects of the financial and economic crisis	Shock caused by COVID-19
<b>Main objective</b>	Increase competitiveness	Increase competitiveness	Boost economic recovery
<b>Time span</b>	10 years	10 years	6 years (borrowing activity)
<b>Role of the EU</b>	Coordination	Coordination (strengthened; also present in other systemic elements (“EMU 2.0”))	Coordination + financing
<b>Financing</b>	Member States	Member States + related to already existing EU budget items	EU budget + Next Generation EU (EU-level long-term borrowing)
<b>Success</b>	Limited	Limited	???

Source: author’s compilation.

Of course, the information provided in Table 1 can be refined in many respects; here we just refer to the fact that in all the three programmes, environmental considerations play an important (and continuously increasing) role. An elaboration on the details of the related aspect is one of the subjects of the author’s planned future research activity.

## 5 Concluding remarks

In the first two decades of the new millennium, the EU has met a couple of important (and partially brand new) challenges. The three programmes presented in this paper have been reactions to some of them. Comparing the programmes, we can see a certain development of EU action: the strengthening of coordination between Member States, the increasing embeddedness of the programmes into the broader long-term plans of the EU, and the development in the financing of the actions in the framework of the programmes.

The overview shows that after two decades of cautious steps, it was an external shock that has moved the EU clearly forward in many aspects. Next Generation EU, as we have seen, has completely new elements; especially its financing (including the joint borrowing activity of the Member States) is something that would have been inconceivable before the COVID-19 shock. The direction chosen can be of crucial importance for the development of the post-Brexit EU: the degree of success of the actions can also be decisive for the development of the European integration process in the next decades.

While the Lisbon Strategy and the Europe 2020 Strategy have not caused a “landslide” in the development of the integration process, Next Generation EU may do so. If the instrument proves to be successful, this can be a way out of the impasse following Brexit, leading towards an increased federalisation of the EU. Of course, such a development has several political and economic conditions, but the importance of the novelty of Next Generation EU should not be underestimated.

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# 5<sup>TH</sup> INTERNATIONAL SCIENTIFIC CONFERENCE: IS IT TIME FOR A TOTAL RESET?

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**Abstract** The Proceedings of 5th International Scientific Conference organized by University of Maribor, Faculty of Economics and Business entitled »Is It Time for a Total Reset?« comprises four sections. Economics is covered by convergence trends in human development indicators in EU, characteristics of savings in North Macedonia, the response of households to Covid-19 epidemic and its effect on food and beverages industry. The second part is devoted to management, and it presents a case study of market entry of emerging small enterprises, circular economy in case of secondary use of raw materials in Poland, a simplification of administrative procedures in Italy, and most common approaches to motivating employees in public administration. The digitalization section includes general presentations of digitalization and its challenges in marketing and education. The fourth part displays the effects of Covid-19 epidemic to legal order, to teaching business English and to EU strategy for growth, competitiveness and sustainable development.

**Keywords:**  
economics,  
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