THE IMPACT OF THE COVID-19 PANDEMIC ON BUSINESSES IN EUROPEAN COUNTRIES

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Abstract

Purpose *– This study aimed to determine the impact of the COVID-19 pandemic on the number of businesses and the turnover generated by them.*

Methodology/approach *- In order to carry out the study, the existing data were processed and following the processing, relative values of the indicators were obtained: number of enterprises, turnover and average turnover per enterprise, which were later compared with the year 2018, considered the reference year.*

Findings *– Following the analysis, it was found that there are both increases and decreases in the mentioned indicators, and the size of the turnover is not always directly influenced by the number of companies.*

Research limitations/implications *– The limitations were given by the existence of different economic conditions both before and during the pandemic at the country level which contributed to the changes that occurred and which cannot be measured and respectively quantified with certainty.*

Practical implications *– The study allowed obtaining a result recorded by the companies in industry and construction, and the results can be used in further research.*

Originality/value *– The study carried out provides information on the evolution of the countries during this period as a result of the comparative analysis between the years studied.*

Key words: *Turnover, comparative analysis, pandemic reality.*

Introduction

The COVID-19 pandemic has determined an unprecedented situation for organizations and people, with economies still under the impact of this shock. The effects of the pandemic are compared by some specialists to the Great Depression of 1929, the Second World War and the Great Recession of 2008–2009 (Roper and Turner, 2020; Azzopardi et al., 2022; Rose, 2021; Eichengreen et al., 2021). The problem of the return and recovery of enterprises through production is intensively discussed in the specialized literature, and from the existing studies it is observed that in some sectors of activity the introduction of technology and digitization related to industry 4.0. yielded results (Büchi et al., 2020, Ivanov and Dolgui, 2020; Fragapane et al., 2020). Other specialists consider that the new post-pandemic context has determined managers to accept changes and reorganizations of activities and businesses (Rapaccini et al., 2020; Klein and Todesco, 2021). For the recovery and the exit from the pandemic, many specialists have focused on two recovery models: increasing production capacity and increasing the supply of raw materials, both of which are intended to contribute to the increase in turnover (El Baz and Ruel, 2021; Ivanov and Dolgui, 2020; Nagurney, 2021; Paul and Chowdhury, 2021).

Other researchers (Morais and Ferreira, 2020) mention the role of SMEs as the 'backbone of economies' and discuss the need for their support by governments by granting financing (Brem et al., 2021). Thus, the major problem of SMEs is emphasized, given the capacity and resources to face uncertainties, as well as the vulnerability to risks, which produces much faster the lack of capital and therefore the need for financial support (Goodell, 2020).

The study consisted of a comparative analysis of the statistical data related to the number of companies and the turnover obtained in 27 European countries. He compared the year 2018 with the years 2019

and 2020, years of the COVID-19 pandemic, aiming to find out if the imposed restrictions had an effect on the existing economies in these European countries.

Material and method

The study included the period 2018-2020 for the following European countries: Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), and Sweden (SE).

The main macroeconomic indicators studied are: (1) the number of companies in industry and construction, (2) the turnover obtained by companies in industry and construction and (3) the turnover relative to the number of companies in industry and construction. In this study, the statistical data existing in the Eurostat database, which provides an overview of the economic situation of each country, was used for the analysis of macroeconomic indicators.

The statistical data were expressed in percentages by calculating the weight of each country in the total value at the level of each indicator, according to formula (1).

$$I_n = \frac{c_i}{\sum_{i=1}^{27} c_i} \quad (1)$$

Where: n - name of the indicator under study (n = 1 ÷ 3), c - indicator value for each country, i - name of the country under study (i = 1 - 27).

Indices based on the chain were calculated for the years 2019 and 2020 using the year 2018 as the reference year, according to the formulas (2-3).

$$i_{2019/2018} = \frac{c_{i2019}}{c_{i2018}} \quad (2)$$

$$i_{2020/2018} = \frac{c_{i2020}}{c_{i2018}} \quad (3)$$

Finally, the average turnover in industry and construction was calculated as a ratio between the turnover and the number of enterprises in each country, according to formula (4).

$$\overline{CA}_i = \frac{CA_i}{NE_i} \quad (4)$$

Where : $\overline{CA}_i$ – average turnover, CA_i – turnover from country i, NE_i – number of companies from country i.

Then the share of the average turnover related to each country was determined as a ratio between the average turnover and the total average turnover from the countries under study, in order to analyze the size of each country, according to formula (5).

$$\%CA = \frac{\overline{CA}_i}{\sum_{i=1}^{27} \overline{CA}_i} \quad (5)$$

Finally, a comparative analysis was made between the years studied.

Results and discussion

Figure 1 shows the situation of the countries according to the number of companies in the industry. From the analysis of Figure 1, it can be seen that most companies in the industry are found in Poland, followed by Spain, Italy and Germany. It can also be observed that in 2020, compared to 2018, in some countries the situation worsened: Bulgaria, Greece, Spain, France, Croatia, Hungary, Austria, Poland, Slovenia, Slovakia, Finland and Sweden, leading to a decrease in the number of enterprises and in other countries the situation has improved: Belgium, the Czech Republic, Denmark, Germany, Estonia, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal and Romania.

In Figure 2, you can see the situation of the countries according to the number of companies in the construction field. Analyzing Figure 2, it can be seen that most companies active in the field of construction are in countries such as: Italy, France, Poland, Germany and Spain.

In order to better see the dynamics of the countries in the period 2018-2020, Table 1 was built. From the analysis of Table 1, it can be seen that the existing economic situation and the COVID-19 pandemic

caused changes by decreasing the number of industrial enterprises in 8 countries in 2019 and in 12 countries in 2020. Also in the field of construction, the negative effect can be observed in 2019 in a number of 15 countries and in 2020 in a number of 16 countries. From the analysis of Table 1, it can be seen that in 2019 in the industry, the biggest decrease is 13.63% in Malta (86.37%), and then 10.04% in Croatia (89.96%). Decreases below 10% were recorded in Spain, below 5% in France, Bulgaria, and below 2% in Greece, Romania and Poland. In 2020, the effect of the COVID-19 pandemic continued to produce a decrease in the number of companies in the industry, which is still observed in Croatia (84.25%), and in Malta the situation is changing, registering an increase. Decreases below 10% were recorded in France (90.58%), Spain (94.53%), Greece (94.99%), Slovenia (94.62%), and below 5% in Poland (96.61%), Austria (97.21%), Finland (97.64%), Bulgaria (99.09%), Sweden (99.2%), Cyprus (99.58%).

In the field of construction in 2019, the negative effect of the COVID-19 pandemic was much greater, causing a decrease in the number of companies compared to 2018 in a number of 19 countries, unlike the situation in industry where the number was 12 countries. Thus in construction we see the biggest decrease in 2019 compared to 2018 of approximately 6.56% in Italy (93.44%), followed by Malta (94.54%), and below 5% in Latvia, Spain, Sweden, Finland , Lithuania, Czech Republic, Italy, Austria, Denmark, Greece, Bulgaria, Slovenia and France. It can also be observed that the COVID-19 pandemic caused a decrease in the number of businesses in 2020 compared to 2018, in most countries, the largest decrease being in Italy (91.02%). The exception is 11 countries that register an increase in the number of enterprises in 2020 compared to 2018: Cyprus, Germany, Portugal, Estonia, the Netherlands, Malta, Romania, Belgium, Poland, Hungary and Croatia.

Figure 3 shows the evolution of the countries according to the turnover recorded by the companies in the industry. From the analysis of Figure 3, it can be seen that in 2020 the highest turnover is recorded in countries such as: Holland, Poland, Germany and Italy.

Figure 4 shows the evolution of the countries according to the turnover recorded by the construction companies. It can be observed that in the field of construction, the highest turnover of companies is found in countries such as: Germany, France, Italy and the Netherlands.

To analyze the dynamics of the turnover, Table 2 was built, which gives us the opportunity to follow the evolution of the turnover in the countries studied compared to the field of activity. From the analysis of Table 2, it can be seen that the turnover in 2019 compared to 2018, in industry decreased in 3 countries: Germany, Croatia and the Netherlands, and in construction in 11 countries: Sweden, Italy, Latvia, Greece, Denmark, Finland, Austria, Slovakia, Slovenia, Czech Republic and Luxembourg. In 2020, compared to 2018, the situation worsened, so that in industry the number of countries in which the turnover fell below the value of 2018 increased from 3 to 7 countries and in construction from 11 to 15 countries. The biggest increase in turnover in 2020 compared to 2018 was recorded in industry in: Romania, Bulgaria, Malta and Sweden and in construction in: Bulgaria, Romania and Germany. For a total of 27 countries studied, the value of turnover decreased in 2020 compared to 2018 by 26% (to 74.04%) in industry, and in construction it increased by 7% (to 107.28%).

In Figure 5, an analysis of the share of turnover in the industry was carried out. Depending on the share of turnover in the industry, the countries can be grouped as follows: between 10-30% we have: Holland and Denmark (with the highest values), between 5-10% we have the Czech Republic, Luxembourg, Sweden, Austria and Germany (with average values), and under 5% we have in: Romania, Bulgaria, Poland, France, Italy, Belgium, Ireland, Slovenia, Finland, Estonia, Spain, Lithuania, Slovakia, Hungary, Cyprus, Greece, Croatia, Portugal, Latvia, Malta (with lower values).

From the analysis of Figure 5 and Tables 1 and 2, it can be seen that there is no direct connection between the number of enterprises and the turnover. Thus, the biggest discrepancy between the large turnover and the number of smaller enterprises is found in the Netherlands and Germany. In countries such as Spain, Poland, Greece and Finland, the share of the number of enterprises is high and the share of turnover is small. Contrary to this situation we see in the Netherlands, Germany, the Czech Republic, Romania, Austria, Slovenia and Denmark.

Figure 6 shows the field of construction, where the highest level of turnover share is found in Germany, which ranks first, followed by France, Italy, Spain, Holland, Portugal, Slovenia and Belgium.

Depending on the share of the turnover per company in the industry, the countries can be grouped as follows: between 10-15% we have Luxembourg and Austria (with the highest values), between 5-10%

we have in Denmark, Germany, Finland and Sweden (with middle values), and below 5% we have: Belgium, France, Holland, Bulgaria, Ireland, Estonia, Cyprus, Romania, Latvia, Spain, Croatia, Italy, Slovakia, Malta, Portugal, Poland, Hungary, Lithuania, Czech Republic, Greece and Slovakia (with lower values).

From the analysis of Figure 6 and Tables 1 and 2, we see that also in the field of construction we find countries where the share of turnover is high and that of the number of enterprises is small (Germany, France, Slovenia, Holland and Belgium) and vice versa (Italy, Poland, Spain, Czech Republic, Slovakia, Hungary and Portugal).

Discussion and conclusions

In the study carried out, an analysis of the evolution of the number of enterprises and the turnover in the period 2018-2020 was obtained, capturing the situation before the COVID-19 pandemic (year 2018) and the subsequent one (2019 and 2020). Although the effects of the pandemic are quite complicated and complex, the study allowed the global identification of the effect in the economy propagated on the one hand by the reluctant attitude of investors to invest or to keep their businesses and on the other hand by the domino effect generated by the restrictions imposed and the total or partial cessation of the activity.

Through the study, it can be observed that at the level of the number of companies active in the industry, a higher percentage decrease is observed compared to the number of companies in the field of construction. This decrease can also be interpreted as a result of the specifics of the activity, knowing that in industry work is generally done in closed spaces and in construction the activities are predominantly in open spaces.

From the analysis of turnover, we can see that it also suffered a decrease both in industry and in construction. This decrease was generated by the delays in the supply and supply chain (due to health restrictions where physical presence was mandatory), the delays generated by the volume of production and consumption (reluctant and uncertain attitude both among investors and among consumers) or the effect of the disturbances generated by the interconnection of economies worldwide.

Although only 2020 is considered the first pandemic year, the research could not be extended to the following years as a result of the lack of statistical data, but this will represent a future research effort.

Notes

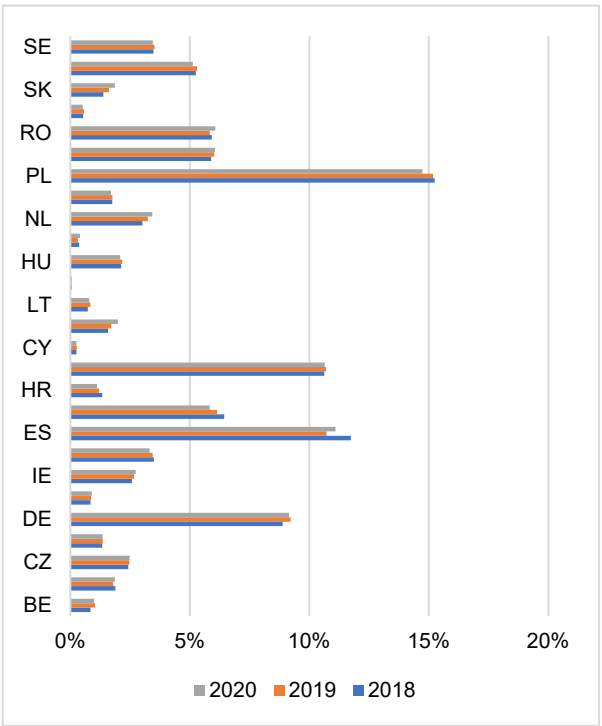

Figure 1. The number of companies in the industry

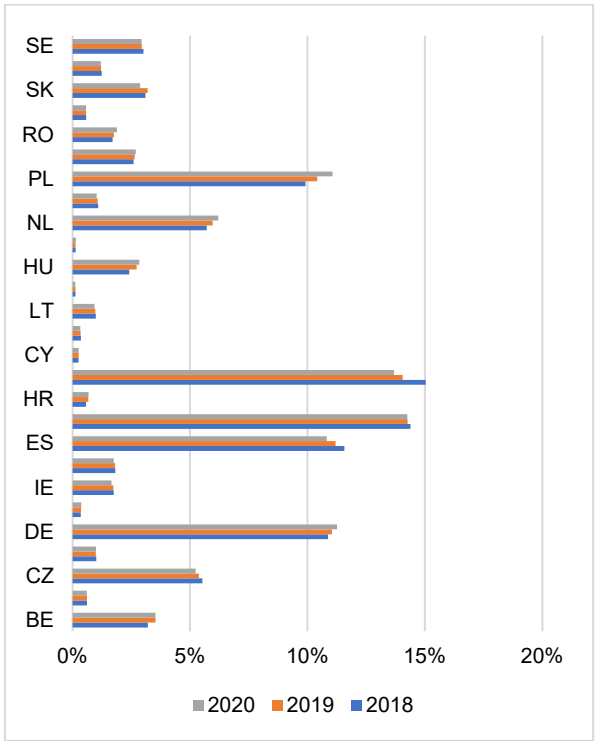

Figure 2. The number of companies in the construction

Table 1. The situation of the evolution of the number of enterprises

Year	Industry		Construction		Year	Industry		Construction	
	2019/2018	2020/2018	2019/2018	2020/2018		2019/2018	2020/2018	2019/2018	2020/2018
BE	121.17%	117.15%	110.20%	110.26%	LT	114.46%	108.32%	97.67%	94.85%
BG	95.46%	99.09%	99.38%	99.03%	LU	102.37%	113.22%	101.52%	97.55%
CZ	101.40%	102.38%	97.24%	94.80%	HU	102.37%	98.30%	113.08%	117.79%
DK	101.48%	101.02%	98.01%	98.39%	MT	86.37%	108.27%	94.54%	109.70%
DE	103.76%	102.96%	101.49%	103.52%	NL	107.46%	113.59%	104.34%	108.57%
EE	103.07%	106.78%	103.34%	104.66%	AT	100.35%	97.21%	98.43%	93.66%
IE	103.28%	106.00%	98.77%	94.71%	PL	99.58%	96.61%	105.02%	111.58%
EL	98.65%	94.99%	99.31%	96.40%	PT	102.17%	102.60%	101.96%	103.65%
ES	91.35%	94.53%	96.74%	93.49%	RO	98.67%	102.59%	103.24%	110.94%
FR	95.40%	90.58%	99.13%	99.02%	SI	106.77%	96.42%	99.02%	99.74%
HR	89.96%	84.25%	117.31%	119.66%	SK	117.36%	135.15%	103.12%	92.77%
IT	100.65%	100.18%	93.44%	91.02%	FI	100.91%	97.64%	97.59%	96.54%
CY	104.69%	99.58%	102.33%	102.99%	SE	101.35%	99.20%	97.49%	97.39%
LV	107.97%	126.07%	96.38%	92.74%					

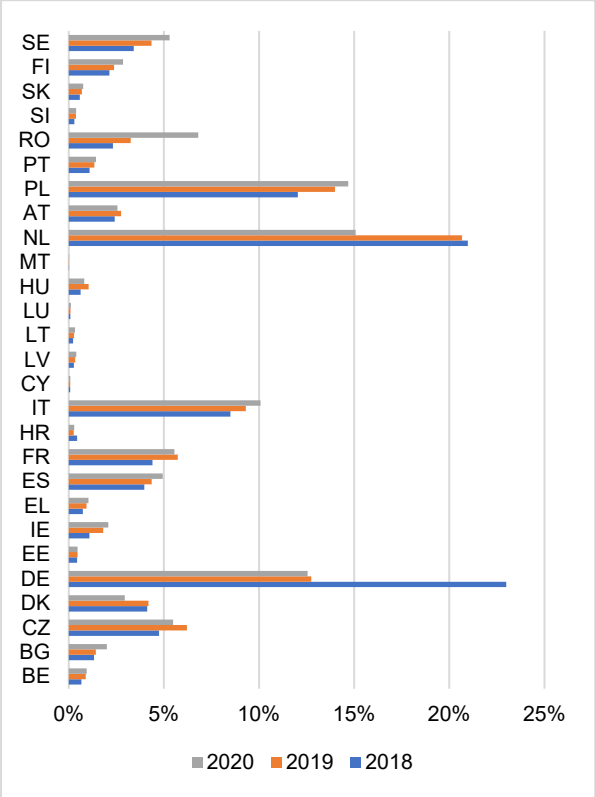

Figure 3. Turnover or gross premiums written in industry

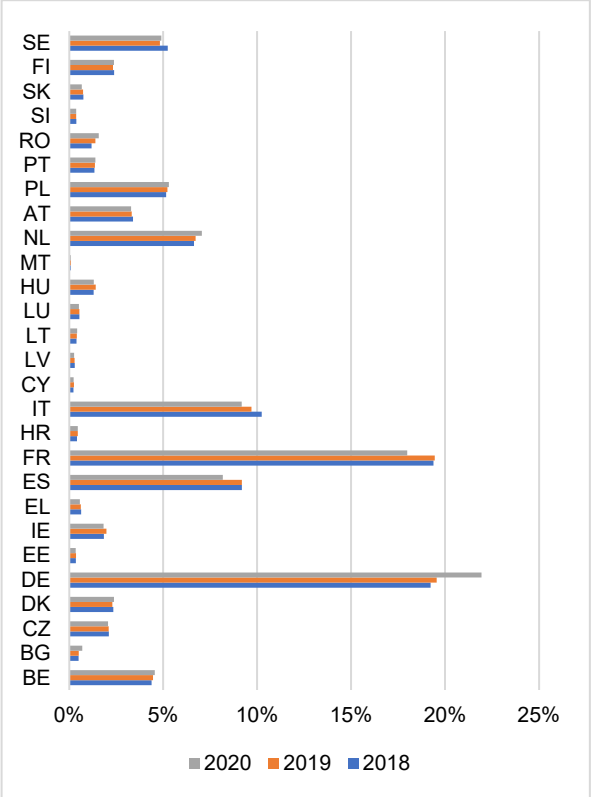

Figure 4. Turnover or gross premiums written in construction

Table 2. The situation of turnover evolution

Year	Industry		Construction		Year	Industry		Construction	
	2019/2018	2020/2018	2019/2018	2020/2018		2019/2018	2020/2018	2019/2018	2020/2018
BE	133.71%	105.63%	101.83%	102.14%	LT	121.89%	118.73%	103.04%	104.03%
BG	107.18%	140.30%	102.53%	136.35%	LU	113.86%	117.95%	99.13%	96.44%
CZ	130.97%	88.31%	99.31%	98.49%	HU	169.00%	78.29%	108.77%	92.71%
DK	101.49%	70.41%	97.74%	103.81%	MT	108.76%	138.72%	110.95%	98.30%
DE	55.44%	98.48%	101.72%	112.17%	NL	98.57%	72.91%	101.32%	104.97%
EE	105.65%	101.00%	102.08%	95.06%	AT	114.08%	92.88%	97.78%	99.20%
IE	166.85%	114.50%	107.04%	92.61%	PL	116.22%	105.02%	101.32%	101.42%
EL	126.06%	111.30%	97.09%	91.30%	PT	122.98%	106.71%	101.52%	102.43%
ES	109.68%	113.26%	100.01%	88.92%	RO	140.27%	208.82%	116.63%	113.17%
FR	130.28%	96.91%	100.37%	92.44%	SI	126.09%	103.46%	97.98%	101.27%
HR	59.27%	111.26%	109.96%	99.91%	SK	117.74%	110.12%	97.93%	91.27%
IT	109.50%	108.25%	94.73%	94.58%	FI	111.56%	119.82%	97.53%	102.23%
CY	104.22%	104.47%	112.23%	93.75%	SE	127.50%	121.82%	92.13%	101.48%
LV	124.31%	118.25%	96.05%	92.40%					

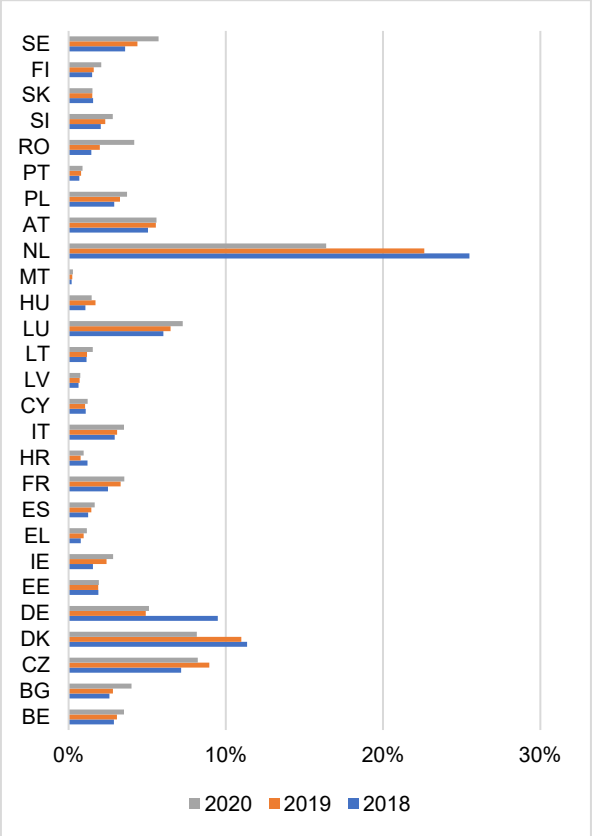

Figure 5. The turnover situation related to the number of companies in the industry in 2020

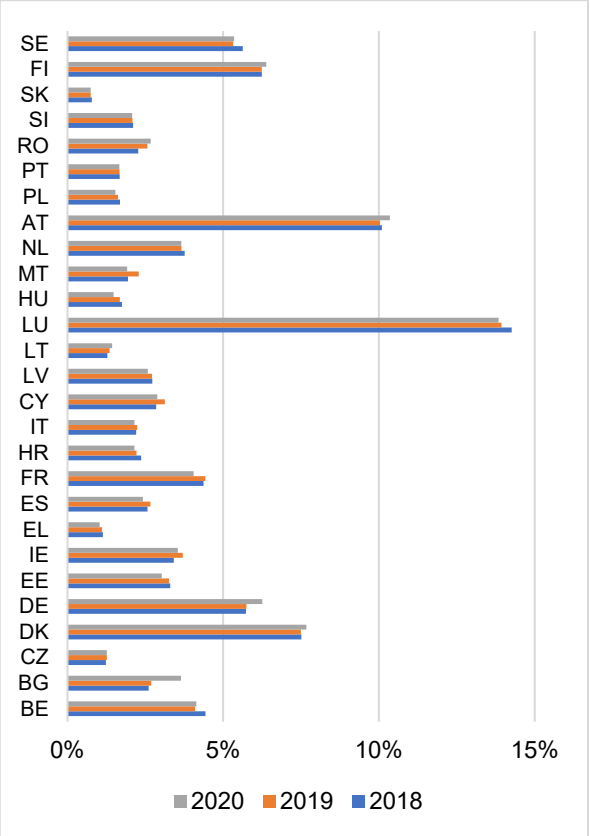

Figure 6. The turnover situation related to the number of construction companies in 2020

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