

# The behaviour of entrepreneurs before and during the crisis with an emphasis on the company's internal financial resources

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## Abstract

**Research background:** To conduct the research, we used data from two surveys conducted in the Czech Republic before the outbreak of the Covid crisis and after the full wave of the crisis. The research focused on the behaviour of entrepreneurs in the field of finance and planning. Statistical methods for data processing suitable for obtaining relevant results were used.

**Purpose of the article:** The paper aims to map the behaviour of entrepreneurs in relation to their business. During business, the entrepreneur decides on the direction of the company and its relationship to the external and the internal environment, which forms the overall image of the company. Drawing on internal and external resources is a very complex decision-making process and is a key element for many companies and entrepreneurs during the Covid 19 pandemic, either in the development of the company or in its existence as such.

**Methods:** The research was conducted in two periods, before the emergence of the COVID - 19 virus, i.e., in the autumn of 2018 and after the first wave of the covid crisis (autumn 2020). They were attended by 488 respondents from all over the Czech Republic. Correlation and square tests were used to evaluate the results. For some statements, a change was demonstrated for some, the hiding of respondents did not change. Finally, research was carried out on reinvestment activities in the addressed companies.

**Findings & Value added:** The results suggest that certain behaviours of entrepreneurs have changed, but there are aspects where the change has occurred but is not statistically significant. All aspects create an overall picture of the behaviour of entrepreneurs, which must be quickly adjusted to the current situation, because without constant adaptation to the environment, the company will not have a long life.

**Keywords:** *behaviour; business; decision making; reinvestment*

**JEL Classification:** *G39; O29; O39*

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## **1 Introduction**

In January 2020, a coronavirus called COVID-19 broke out in the People's Republic of China. Thanks to its openness and interconnectedness, it spread rapidly throughout the country and subsequently throughout the world. The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020 (Jiang et al., 2021). The spread of coronavirus has led governments to take extreme measures so far, which few in today's predominantly democratic world could imagine. This pandemic has led to the closure of various sectors, the creation of global pressures in all sectors, and a sudden impact on countries' economies (Kuckertz et al., 2020).

As one of the impacts, companies in the vast majority of countries needed to maintain their employees' wages, social security, taxes or rents, all of which made it very difficult to maintain the "normal" day-to-day operations of companies (Liu et al., 2020a, b). Among the results provided by Shields et al. (2021) refers to as 'physical shocks' include unprepared healthcare organizations and businesses that have failed. Due to the lack of investment to reduce the risk of these negative aspects, this crisis was a major milestone for companies. The redistribution of investments to procedures designed to create opportunities, help avoid unexpected disasters, or at least marginally reduce risk was not made due to the diversion of investments and investment funds to the already mentioned areas such as employee wages, etc., especially in selected sectors a major economic problem, where the companies were not able to operate as in the pre-pandemic period (Tonnoir et al, 2021). This crisis increases the need to find alternative solutions for both entrepreneurs and ordinary citizens. Of course, these are also companies, alternative solutions can be used to mitigate damage, prepare for intervention and, of course, rebuild society (Pheng et al., 2006; Alexander, 2019). The duration of this crisis and the long-term effects on businesses and, of course, entrepreneurs are still uncertain. This has even greater consequences for start-ups and SMEs (Brown and Rocha, 2020). According to Koundouri et al. (2020). There is a growing demand for sustainable practices to reduce potential crisis crises. According to the authors, the current generation has gone through many crises, whether it was the Great Recession, the climate crisis, or COVID - 19. Each crisis should be addressed in a different way, specifically by different socio-economic policies. According to the authors, the emphasis should rather be on sustainable policies that would limit the impact on future crises. The concept of crisis mainly concerns an unexpected, external and unpredictable event that requires a response at both government and corporate levels (Doern et al., 2019).

According to Zhu and Song (2021), internal control plays a role in preventing risks for companies in dealing with serious, especially extraordinary events, which ensures the sustainable development of companies during any crisis. The empirical results of the authors' study show that the high quality of internal control plays a significant role in resisting various corporate risks and responding to crises, this effect is positively correlated with the severity of the pandemic. The above conclusions reveal the role of internal control in risk prevention in large-scale emergencies and provide theoretical evidence for improving the company's crisis response mechanisms in the future.

The degree of uncertainty associated with the COVID-19 pandemic has also affected business activity (Kuckertz, 2021). Coronavirus caused a crisis that forced (not only) small businesses to fight for their existence. These companies face many unpredictable challenges such as lower sales, rising debt, or higher costs. Some entrepreneurs were forced to close their business, others had to explore opportunities and possibilities at a time when what worked before was replaced by a new form of "normalcy." Entrepreneurs should carefully assess the new trends caused by the crisis and better perceive consumer behavior to meet their changing needs (Vig and Agarwal, 2021). As a result of various restrictions, the ways of shopping have changed significantly, and according to Valaskov et al. (2021). New buyer

factors need to be identified in order for traders to develop appropriate strategies that respond to consumer changes and thus keep a business functioning.

According to Fracasso and Jiang (2021), companies run by entrepreneurs with a positive perception of economic and social status and a high level of education tend to grow. According to Samalopanan and Balasubramaniam (2020), the planning and considerations that are carried out during the initial phase of doing business play an important role in the company's success and increase the company's ability to overcome the impending crisis. Some entrepreneurs fail due to the absence of these factors. The entrepreneur must have the resilience to overcome the crisis. In this sense, studies show that the resilience of entrepreneurs can be a factor in business success, as resilient entrepreneurs show a high degree of tolerance for ambiguity, are able to adapt quickly to change, take advantage of these situations, and learn from their mistakes (Ayala and Manzano, 2014). Another important feature of the entrepreneur is, for example, flexibility in creating strategies and adaptability and innovation, which allows them to face crises and strengthen their resilience (Castro and Zermeño, 2020). It is therefore expected that in the future, without the constant identification of either changing consumer needs, new innovative products, or the expansion of product lines and product groups, a company cannot be successful in the long term (Valaskova et al, 2021).

Financial and other crises are a catalyst for promoting the need for financial and economic benefits of sustainable investment (Shields et al., 2021). In the face of the uncertainty of the external environment, companies with cash reserves have an effective reserve to continue their business activities during crises and to allow the continuation of investment activities, which they can adjust to the current situation on the market. Firms with high cash reserves show strong resilience and are able to continue or even increase their original capital expenditure plan (Jiang et al., 2021). Reinvestment can be a way to support the company, so it is a return on a previous investment, which is directed back to the company in the form of new investment. This opportunity to support a company is a complex dilemma at all times, but at the time of the COVID-19 pandemic, it is a particularly complex decision (Pokorná et al., 2019).

## **2 Methods**

In the Czech Republic, two surveys were conducted in various companies focused on the behaviour of entrepreneurs and their relationship to reinvestment. The research was carried out throughout the country and various companies were contacted, and after selecting inappropriate questionnaire surveys (approximately 19.2%), a total of 488 relevant questionnaires remained, and thus 488 entrepreneurs commented on the issue. The first research was conducted before the crisis caused by the COVID - 19 virus, ie in autumn 2018. The second period, in which a questionnaire survey was conducted at the same companies, was after the first wave of the crisis, which in the Czech Republic corresponds to autumn 2020. the economy, including companies, began to "wake up". As the research was carried out at identical research facilities, the number of irrelevant questionnaires also increased with the termination of business activities, and this number climbed to the already mentioned 19.2% of companies. Comparison, Chi-square test, and SPSS program were used for evaluation.

In the first part, entrepreneurs were to identify with statements that were rated according to the Likert scale as follows: strongly agree (1), rather agree (2), do not know (3), rather disagree (4), and strongly disagree (5). These statements concerned their business conduct.

### 3 Results

The first statement examined here was that the given entrepreneur only adapts to changes in the surroundings of the company, in 2018 there was the largest share of entrepreneurs, as in 2020 for the statement that he rather agrees. Two years later, after the first wave of the COVID - 19 pandemic, this statement has risen to 50.61% of respondents (Table 2). The difference you can see in Table 3 is 6.52%, which is not in this statement, but it is not the biggest change in the question, the most drastic change is in the answer marked on the scale as 1, so I definitely agree (14.45%). There was a demonstrable change in this statement, this is confirmed by the chi-square test, for which the value  $pvalue = 3.36658e^{-10}$  was issued.

In the second statement concerning investment planning, there were no major changes in this question, which can be seen in the average of the answers, which is the same in both periods. This is also confirmed by the pvalue, which corresponds to 0.7743519, which did not prove a change.

**Table 1.** The behaviour of entrepreneurs in the period 2018, before the crisis

2018	1	2	3	4	5	average
I only adapt to changes in the environment	6,25%	44,10%	15,63%	28,47%	5,56%	2.83
I plan to invest	43,06%	37,50%	5,90%	11,81%	1,74%	1.92
I'm looking for a risk	5,90%	12,85%	8,68%	45,49%	27,08%	3.75
I have an idea how to deal with the expected risks	13,54%	56,60%	16,67%	11,46%	1,74%	2.31
I finance business mainly from my own resources	30,21%	30,90%	4,51%	22,22%	12,15%	2.55

Source: our source

The claim about risk search has the largest share on scale number 4, ie it rather disagrees, so 45.49% of respondents did not look for risk before the pandemic, which can be seen from table number one above, so entrepreneurs are rather reserved. This value fell slightly after the first wave of the coronary crisis to 43.24%, it can be assumed that due to the crisis, some entrepreneurs found the courage and some even the opportunity in business and could take advantage of this. Overall, the values did not change in the risk statement (value = 0.53024).

**Table 2.** The behaviour of entrepreneurs in the period 2020, after first wave

2020	1	2	3	4	5	average
I only adapt to changes in the environment	20,70%	50,61%	11,07%	14,14%	3,48%	2,29
I plan to invest	44,26%	34,22%	7,58%	12,70%	1,23%	1,92
I'm looking for a risk	7,79%	16,19%	8,81%	43,24%	23,98%	3,59
I have an idea how to deal with the expected risks	20,29%	59,84%	11,89%	6,56%	1,43%	2,09
I finance business mainly from my own resources	51,64%	33,81%	1,02%	9,02%	4,51%	1,81

Source: our source

Entrepreneurs who have an idea of how to deal with the expected risks are more after the first wave of the crisis, in their own opinion. Entrepreneurs who agree (answers 1 + 2) with this statement are a total of 70.14% in 2018 (the answer definitely agrees 13.54% and rather 56.60% of entrepreneurs agree). In 2020, the number of these entrepreneurs increased (perhaps also due to the experience of the crisis) to 80.13%, where 20.29% of respondents

strongly agreed with this statement and 59.84% rather agreed. It should be added that unsuccessful entrepreneurs have ceased their activities, so this result could be expected as they no longer participated in the research. This shift in the belief of their abilities is also evidenced by the reduced average in 2020 compared to 2018, and the change was also demonstrated by a test where the pvalue reaches 0.009946536.

**Table 3.** Difference between answers of 2020 and 2018

difference between 2020 and 2018	1	2	3	4	5
I only adapt to changes in the environment	14,45%	6,52%	-4,56%	-14,33%	-2,07%
I plan to invest	1,21%	-3,28%	1,68%	0,90%	-0,51%
I'm looking for a risk	1,88%	3,34%	0,13%	-2,25%	-3,11%
I have an idea how to deal with the expected risks	6,75%	3,24%	-4,78%	-4,90%	-0,30%
I finance business mainly from my own resources	21,43%	2,91%	-3,49%	-13,21%	-7,64%

Source: our source

The last, but no less important, the statement was whether entrepreneurs finance their business mainly from their own resources. According to Table 3, this statement showed the most uncertain change in the statements and behaviour of entrepreneurs. It can be seen in the table that the change was 21.43% for the answer that it will definitely agree with this statement. This can also be seen on the average, which can be seen in the second table as the lowest value, i.e., the statement with which the respondents agreed the most. In 2018, 30.21% of entrepreneurs completely agreed, and in 2020, the answer was that 51.64% fully agreed. Uncertainty in business towards profits as well as a possible aversion to debts and deepening of the crisis in their companies can be seen here. Mathematically, the change is based on the result of a test that came out  $1.49461E^{-13}$ .

Financing a business and its parts is a difficult choice for every entrepreneur, the last statement clearly showed the trend of self-financing of the company. In the statement before, the respondents identified with the idea of investing, this idea (statement) was also to a large extent supported by entrepreneurs. If we put these ideas together and cycled the idea, we would come up with the idea of reinvestment. The rate of companies that reinvest can be seen in the table below.

**Table 4.** Percent of firms that makes reinvestment

	Reinvestment	Nonreinvestments
2018	86,46%	13,54%
2020	89,14%	10,86%

Source: our source

The percentage of companies that reinvest was considerable in the period before the crisis, this value corresponds to almost 86.5%. Not surprisingly, the value of reinvestments increased during the crisis, as external funding was unattainable for many and would be a far greater economic burden when businesses were either completely closed or severely curtailed due to the COVID - 19 virus. visible, but mathematically this change is not significant pvalue = 0.264367753. The number of companies that reinvest is significant and it is logical because without continuous improvement it is not possible to do business in the long term, which is in times of crisis. The average amount of reinvestment, which was defined as a percentage

of the company's profit in the autumn of 2018, also increased at the heart of 35.06%, and two years later after the first wave of the covid crisis, this value is slightly supported at 39.24%.

For more detailed information on the direction of reinvestment in the company, four groups were created in which entrepreneurs could reinvest: Marketing (television advertising, PR, etc.), new direction in business (new department, new production, etc.), employees (training, benefits, etc.) and company equipment (new machines, computers, etc.). Respondents answered in such a way that for each of the areas in which reinvestment could be marked one of the answers: 0%, up to 20%, up to 40%, up to 60%, up to 80%, and up to 100%, this sum corresponded to 100% of the given reinvestment.

**Table 4.** Percent of firms that makes reinvestment in 2018

	Marketing	New direction	Employees	Equipment
0%	31.33	43.37	27.71	7.63
up to 20%	<b>49.40</b>	<b>36.14</b>	<b>52.21</b>	23.69
up to 40%	13.65	14.86	15.26	<b>26.91</b>
up to 60%	2.81	2.81	3.21	21.29
up to 80%	2.01	2.01	1.61	20.08
up to 100%	0.80	0.80	0.00	0.40
in total	100	100	100	100

Source: our source

Table 4 shows that the most frequent answer in 2018 was the distribution of reinvestment of more than 20% of the total amount in all areas except business equipment, where the most numerous answers was reinvestment of up to 40% of the total reinvested amount and a new direction of the business, where the most numerous answers is that the entrepreneurs did not invest in this area. The most significant, almost half of the answers of respondents in the field of marketing fall on the already mentioned 20% of the total value of reinvestment, this is the second most numerous answers in 2018, i.e., before the crisis. The highest share of the total answers falls on the answer that entrepreneurs reinvest up to 20% of the total reinvestment in the area that deals with employees.

**Table 5.** Percent of firms that makes reinvestment in 2020

	Marketing	New direction	Employees	Equipment
0%	30,80	<b>42,53</b>	34,25	5,29
up to 20%	<b>49,43</b>	37,70	<b>45,52</b>	<b>30,11</b>
up to 40%	13,10	14,25	13,10	28,97
up to 60%	5,06	3,22	4,37	19,31
up to 80%	1,15	2,07	2,53	11,26
up to 100%	0,46	0,23	0,23	5,06
in total	100	100	100	100

Source: our source

In 2020, reinvestment rates changed somewhat, except in the area of marketing, where the values did not change significantly. For the new direction of the business, the most numerous answers were 0%, but this value is not higher than the previous reference period

(2018), from which it can be read that entrepreneurs have reinvested more in this area. These results, which can be seen in the table above, show that entrepreneurs have become more adapted to the crisis, whether it was buying their own cars for the delivery of goods or in other ways. The change in 2020 also took place in the company's equipment, the values of reinvestments decreased. The most frequent response is now reinvestment up to 20% compared to 2018, where the most frequent response was up to 40%.

**Table 6.** Difference between reinvestment answers of 2020 and 2018

	Marketing	New direction	Employees	Equipment
0%	-0,52	-0,84	6,54	-2,34
up to 20%	0,03	1,56	-6,69	6,42
up to 40%	-0,55	-0,61	-2,16	2,06
up to 60%	2,25	0,41	1,15	-1,97
up to 80%	-0,86	0,06	0,92	-8,82
up to 100%	-0,34	-0,57	0,23	4,66

Source: our source

Table 6 shows the differences in the monitored years, ie before the crisis in 2018 and after the first wave of the crisis in autumn 2020. Mathematical evidence for the relevance of the change was not demonstrated in the field of marketing, where the p value corresponds to 0.691899852. There was also no change in the area of the new direction of the business (pvalue = 0.919314937). In the case of employee reinvestments, the largest change was demonstrated from the above areas, but this value still does not correspond to a sufficiently statistically significant change (pvalue = 0.320311193). The only statistically proven change took place in the area of company equipment (pvalue = 0.000334078).

## 4 Discussions

The paper dealt with the behaviour of entrepreneurs in the period before the crisis caused by the COVID -19 virus and after the first wave of the crisis, ie in autumn 2020 in the Czech Republic. Two pieces of research were used for this, which are copied in the paper and statistical values prove changes in the behaviour of entrepreneurs, which did not occur in every aspect of their behaviour. Significant changes were demonstrated in the area of adaptation to changes, the idea of how to deal with expected risks and whether entrepreneurs finance their business mainly from their own resources, these data were calculated from a sample of 488 entrepreneurs. Furthermore, the paper focused on the company's internal resources in the form of reinvestment activities, where a statistically significant change was also reported. For many, the rate of companies that reinvest surprises is almost 86.5% before the outbreak of the coronary crisis and just over 89% of reinvesting companies after the first wave of the crisis. We know that the crisis did not end in the autumn of 2020, and even in the autumn of 2021 certain measures still exist and many are talking about another wave of the crisis. Currently, the author is preparing further research and assumes that the number of companies will decrease even more, as some will close their business. The world economy and the economy of individual entrepreneurs have been significantly disrupted and their return to the previous state is often not and will not be possible, but everyone hopes so.

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