



Micro-Sized Enterprise Management During the Epidemic. Qualitative Analysis

Marcin Kęsy, Dariusz Pawliszczy, Liudmyla Morozovska,
Nataliya Navolska and Oksana Apostolyuk

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

May 13, 2021

Micro-sized enterprise management during the epidemic. Qualitative analysis

Marcin Kęsy^{1*}, Dariusz Pawliszczy², Liudmyla Morozovska³, Nataliya Navolska⁴, Oksana Apostolyuk⁵

¹ Ph. D., University of Economy in Bydgoszcz, Poland

² Ph. D., Mayor of the Gromadka commune, Poland

³ Ph. D., West Ukrainian National University of Ternopil, Ukraine

⁴ Ph. D. Associate Professor, West Ukrainian National University of Ternopil, Ukraine

⁵ Ph. D., West Ukrainian National University of Ternopil, Ukraine

Abstract: The epidemic has affected the business situation in business entities, especially micro-sized enterprises, which mainly work in the service sector. In the event of a crisis, it is the service sector that is at high risk for business. To improve the financial condition of companies throughout Poland, a so-called “anti-crisis shield” was prepared, in addition, the governing bodies of the Lubuskie Voivodeship prepared an assistance plan for entrepreneurs. Its counterpart at the local level was assistance directed at companies in Zielona Góra. The cognitive value of the article is enriched by a thematic study done at micro-sized enterprises operating in the service sector in the territory of the Lubuskie Voivodeship with offices in Zielona Góra.

1. Introduction

The epidemic situation, which gradually, although unexpectedly, arose throughout Europe, affected all aspects of society's daily life. Changes have taken place at all levels of social functioning. In the education system, the direct form of studies was urgently and immediately replaced by indirect one, using distance learning. Due to the organizational load and legal restrictions associated with the Covid-19 virus, the health service was forced to introduce teleconsultation in the event of the first contact between a doctor and a patient and to limit the volume and intensity of the healthcare provision due to the system's orientation towards the process of diagnosing and treating patients with coronavirus.

All these changes in the functioning of a large number of business entities led to the fact that social life has moved from offices, workplaces or streets to homes. The result was a decrease in domestic demand, which in April was lower by 24.7% than in the same period last year [18]. A similar situation was recorded the next month. The exacerbation of the crisis is critical for the labor market, leading to the rise in unemployment levels in May to 6.0% against 5.4% this March, which is about 100 thousand unemployed in absolute values.

Forecasts for the market are not favorable, and macroeconomic data show that by the end of 2020 there will be about 2 million unemployed, or more than

10%, and the unemployment rate will not fall below 8% by 2023, in addition, we should not count on an increase in the minimum national living wage [9]. This will directly affect the decrease in domestic demand, which, with a possible reduction in inward investments and a decline in the export of goods and services, according to the French Minister of Economy and Finance Bruno le Maire, will result in a situation that the world economy is threatened with a recession and a financial crisis similar to the crisis of 2008 or even 1928 [12].

Among enterprises, the most vulnerable and the least resilient are micro-sized enterprises, which do not have sufficient savings, the so-called financial maintaining. Thus, they may not survive the period when the demand for their services will decrease, while constant costs will not decrease.

2. Features of the micro-sized enterprise

Enterprises, according to the Law on Entrepreneurs, are divided into four types: micro-sized, small, medium-sized and large [13]. Taking into account the criterion of business size, micro-sized enterprises employ an average of less than 10 employees each year and there are achieved an annual net turnover from sale of goods, products and services, as well as financial transactions, which does not exceed the amount equivalent to 2 million euros in PLN, or the amount of its assets

* Corresponding author: marcin.kesy@byd.pl

balance sheet drawn up at the end of one of these 2 years, which does not exceed the amount equivalent to 2 million in PLN [6, p.13].

The author, characterizing micro-sized enterprises at the management level, took into account 7 factors: management functions, information system, management models, the role of intuition, the relationship between information and decision-making, formalization of problems and delegation of powers [11, p. 363], as well as a low degree of diversification of goods and services produced, poor recognition of external environment – consumer market, competition, suppliers [6, p. 19-20].

By means of these features, it is possible to distinguish a micro-sized enterprise from a small, medium-sized and, above all, a large enterprise, in which the organizational structure is more complex, often three-level, which affects the distribution of roles between supervisory personnel and employees in vertical and horizontal projections. On the other hand, at micro-sized enterprises there is personal management, without taking into account the functions of the lower management level. The manager has direct and individual contact with the employee. Due to low level of employment and often homogeneous activities, information systems at micro-sized enterprises do not play a prominent part, their functions are mainly limited to e-commerce or accounting. The centralized management model characterizes micro-sized enterprises in which the head, manager manages authoritarily and according to the principle of "top-down", and the decisions are not delegated below the level of the organization, therefore it should be noted that the activities associated with the delegation of powers are limited. Through direct contact between employees and the manager, the formalization of problems at the enterprise is at a low level, most tasks are transferred orally, without a written record. Hence, we conclude that at micro-sized enterprises, internal procedures are minimized, there is a low degree of formalization of problems. Often, business with fewer than 10 employees is a family business, with the founder or descendants of the enterprise in charge and family members acting as employees. Family business managers apply a business management method that is largely based on intuitivity and experience, which in turn develops into operational knowledge [4, p. 44]. The activities of micro-sized enterprises are characterized by a low degree of diversification, which means that they produce homogeneous products or services, and due to institutional constraints, expenditures and competencies, they do not expand the company strategy by expanding the range of goods or services. Doing business is fraught with considerable uncertainty and operates on the basis of "business intuition" rather than economic data and information. Entrepreneurs know little about the business environment in which they operate. Most often this is a perfectly competitive market, which by definition is very changeable.

A significant group of entities belonging to micro-sized enterprises are the so-called family enterprises [3, p. 9-10; 5, p. 20], which also affects their nature.

The development of an enterprise, including a micro-sized, small or medium-sized enterprise, is one of the most complex processes occurring in the course of its operation. As a rule, being the most eagerly awaited effect of purposeful and organized economic activity for interested parties, it belongs to the highest level of organizational goals [8, p. 12].

3. Evolution from industrial economy to knowledge-based economy

Globally, regionally and locally, we are experiencing changes that are shaping a new type of society based on knowledge and information [7].

Describing the changes taking place in the world, he identified three turning points, which he called waves [10, p.33]. These were turning periods in the nature and structure of the economy and society. The 1st wave is called the agrarian era, in which the dominant sector was agriculture. The next, 2nd wave was the era that marked the beginning of the industrial revolution and lasted about 200 years. It was characterized by the predominance of industry in the manufacturing industry and the participation of workers in employment. A group of workers appeared, who came from the impoverished peasantry, the landlord or the bourgeoisie. The third wave, called the age of the information-oriented society, has become the age of knowledge. At this stage of change, the most important sector is services, and the end product is information and knowledge. Services, which have become the dominant sector of the economy, are becoming increasingly important.

In the last few years, there have been many transformations in all spheres of socio-economic life. The transformation of the production era into a knowledge-based economy is forcing a change in perceptions of the world. Traditional factors of production, such as land, labor and capital, are no longer the only key differentiators of business development; currently knowledge and information determine the company's position at the market [1, 11].

Table 1. The share of enterprises at the market by the number of employees.

	Poland		Lubuskie Voivodeship		Services	Trade	Construction	Industry
Enterprises	Absolute values	%	Absolute values	%				

Micro-sized	about 2 million	93.6	about 103 thousand	94.9	53.1	23.9		9.4
Small	about 53.8 thousand	5.5	about 4,600	4.2				
Medium-sized	about 15.3 thousand	0.8	about 840	0.8				
Large	about 3.6 thousand	0.1	about 130	0.1	30.7	13.7	3.7	51.9
Total	2.07 million	100.0	about 109 thousand	100.0				

Source: Report of the State of the Small and Medium-Sized Business Sector 2019 Polish Agency for Enterprise Development 2019 p. 15-19.

The data shown in Table 1 confirm that the largest market share is made up of micro-sized enterprises, there are about 2 million business entities operating throughout the country. The small and medium-sized business sector comprises 99.9% of all companies operating at the Polish market. According to the distribution of companies by the type of activity, attention is drawn to the fact that in the case of small and medium-sized businesses, the dominant sector is services, and then trade. However, for large enterprises the industrial sector predominates, and the next area of activity is services. The conclusion is that micro-sized enterprises are usually service companies that operate homogeneously with a low degree of diversification, an extra feature of which is the low value of assets and an overexposure of the market situation with limited financial liquidity.

4. Epidemiological situation in Poland and immediate forecasts

The measures taken so far to manage the epidemiological situation can generally be divided into two stages. The first was the introduction of complete social isolation through the presence of citizens in places of residence, restricting the movement of people in public places or at work. The second stage was the removal of restrictions on movement, the introduction of so-called personal hygiene measures in the form of the requirement to wear masks in these places and the

so-called public distance: 1.5 meters in a public building, 2 meters outside buildings.

The above actions have led to a situation where the increase in infected people is linear rather than exponential. Thus, the infrastructure and medical staff are sufficient to combat the effects of the epidemic in the country. However, the negative effect of smoothing the incidence rate is the continued steady increase in new cases of coronavirus carriers. 1.5 months ago, the author predicted that the daily increase in the incidence was from 250 to 350 people, which was confirmed in the consecutive days and weeks. Currently, every day increase about 7-8 thousand cases.

Figure 1 shows the epidemiological situation in Poland as of July 16 this year. In Lubuskie Voivodeship, there are 261 people infected with the coronavirus, of which 146 recovered and 1 person died [2].

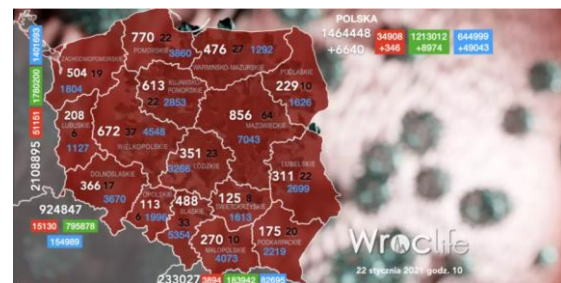


Fig.1. The COVID-19 pandemic in Poland.

Source: <https://wroclife.pl/>, 23.01.2021r.

5. Measures of support of micro-sized enterprises

The reaction of Poland to the deterioration of the economic situation of enterprises was 4 laws prepared and adopted by the Sejm of the Republic of Poland in the form of the so-called "anti-crisis shield" marked 1.0, 2.0, 3.0 and 4.0 [14].

Two of these documents are intended for micro-sized enterprises, ie anti-crisis shields 2.0 and 3.0. Within the framework of state aid, assistance measures are carried out, presented below:

1. exemption from contributions of the Social Insurance Office for a period of 3 months,
2. assistance for persons engaged in entrepreneurial activity (PLN 2,080 or 1,300),
3. additional financing of part of the cost of salaries for employees and social security contributions due on this salary,
4. additional financing of the salary of employees,
5. installments or payment of arrears in the Social Insurance Office later,
6. advances can be paid by PIT / CIT,
7. low-interest loan from the labor fund (PLN 5,000).

Further measures of support to entrepreneurs have been taken by the local government of Lubuskie Voivodeship for micro-sized enterprises:

1. Lubuskie entrepreneurs support vouchers (the total amount of assistance is 30 million zlotys), of which the assistance for 1 micro-sized enterprise is from 30 to 120 thousand zlotys. The assistance has two goals: investment and revolving, or one goal: investment. The maximum funding level for the voucher is 95% of eligible costs. Receipt of applications in an extraordinary mode.

Another unit at the regional level that supports micro-sized entrepreneurs is the Labor Office of the Voivodeship, which has offered the following assistance:

1. Support to entrepreneurs in the field of job protection from the Fund for Guaranteed Employee Benefits.

Within the framework of the anti-crisis shield, 1,040 enterprises were supported in the territory of the Lubuskie Voivodeship, which made it possible to secure 49,078 workplaces. The total cost of the assistance was 174,356,120 zlotys [19].

The district labor offices operate one level down and they have prepared assistance for micro-sized enterprises, consisting of a low interest loan from the Labor Fund or additional financing of part of the cost of wages and social security contributions.

On the other hand, the authorities of the city of Zielona Góra have prepared a proposal for enterprises located in Zielona Góra, which includes:

1. 6-month deferral of real estate tax, after which the members of the commission make a discretionary decision,
2. exemption from exhibition and lane fire charges for catering establishments,
3. reducing the amount of rent for the lease of city premises into a symbolic one – 1 zloty

The total cost of assistance is estimated at 30 million zlotys.

6. Research methodology

The theoretical analysis realized in the earlier part of the article has been complete with empirical analysis. The researchers created the research goal: Problems which are related to functioning in a pandemic environment. To released the goal we used informations from owners of firms.

All of criterions of the analysis was presented later in the text. The hypothesis was built on five criterions. It's mean: A new pandemic situation is negatively affect the financial and economic condition of service firms.

Media reports, own analysis of the macroeconomic situation and observation of isolated situations in enterprises suggested that the epidemiological situation negatively affects the economic and financial situation of enterprises, especially those working in the service sector. Based on this, the author of the research suggested that the subject of the research will be micro-sized enterprises that operate in the service sector. In turn, the topic of the research is the assessment by entrepreneurs of their own situation in the context of

the market situation in the environment in which their enterprises operate.

Through organizational, time and financial capacity, the research was limited to non-randomly selected micro-sized enterprises operating in the city of Zielona Góra in service-related areas. The best research method was the interview method, which used a measurement tool – an interview questionnaire, which consisted of open-ended questions. Therefore, the author's interpretation served as the basis for cognitive analysis.

The companies included in the research were divided into 4 groups in accordance with the Polish Classification of Activities.

1. Activities involving accommodation (Polish Classification of Activities I-55): hotel business, short-term accommodation.
2. Activities of tour operators (Polish Classification of Activities N-79): travel agencies, means of transport.
3. Individual service activities (Polish Classification of activities s-96): esthetic, hairdressing, funeral.
4. Construction (Polish Classification of Activities F-41): buildings, finishing works.

The researches were conducted at 9 enterprises, 1 from each type of activity. The main task set by the author of the research was not to describe the situation in the business, but to show the position of enterprises in diverse fields in order to be able to build a general idea of the position of markets and build a future picture of the situation at enterprises in six months.

In this research, the author focused on 5 planes. The assessment covered: demand for services, unit cost (price), income generation (especially variable costs), and business development prospects in the short term and financial liquidity (financial maintenance of activities for the next 3 months).

The research used the interview method, and as a measuring tool, the interview questionnaire, which consisted of open-ended questions concerning all 5 planes of analysis. The survey was conducted within 5 days (May 5-9 this year), which allows us to conclude that all business entities had the same business situation.

7. Presentation of the results of own and others' research

The author conducted the primary research at 9 micro-sized enterprises. Table 2 presents the results of the research taking into account the field in which the company does business.

The results of the research were confirmed by the secondary research, which the author presented in graph form, and by the description of the National Association of Purchasing Managers' Index [21], which is an indicator of financial activity.

Table 2. Conclusions of the primary research.

Subjects	HOTEL BUSINESS	Short-term accommodation	TRAVEL AGENCIES	Means of transport	Esthetic	Hairdressing	Funeral	Building	Finishing works
DEMAND FOR SERVICES (1-3)	DECLINE	DECLINE	DECLINE	DECLINE	DECLINE	STAGNATION	STAGNATION	DECLINE	DECLINE
PRICE OF SERVICES (1-3)	DECLINE	DECLINE	STAGNATION	DECLINE	STAGNATION	STAGNATION	STAGNATION	INCREASE	STAGNATION
EXPENSES FOR INCOME GENERATION (1-5)	GROWTH OF FIXED EXPENSES	WITHOUT CHANGES	WITHOUT CHANGES	REDUCTION OF VARIABLE EXPENSES	GROWTH OF VARIABLE EXPENSES	GROWTH OF VARIABLE EXPENSES	WITHOUT CHANGES	WITHOUT CHANGES	WITHOUT CHANGES
TIME PERSPECTIVE (1-4)	NEGATIVE	NEGATIVE	INDEFINITE	NEGATIVE	INDEFINITE	INDEFINITE	INDEFINITE	INDEFINITE	INDEFINITE
FINANCIAL LIQUIDITY (1-3)	AT RISK	AT RISK	AT RISK	AT RISK	IN QUESTION	IN QUESTION	AT RISK	IN QUESTION	IN QUESTION

Source: own elaboration on the basis of primary researches.

The results represented in Table 2 show that in 7 out of 9 surveyed enterprises there is a decrease in "demand for services provided", in the other 2 enterprises there is stagnation in this regard. The author believes that the decrease in demand for services is the result of social exclusion and search cheaper substitutes by consumers because of doubtful future and for reasons of costs saving. Only in the case of beauty and hairdressing services there was no decrease in the services provided, probably due to the nature of the activity.

Another criterion of analysis, that is, "the price of services", differentiated in the responses of entrepreneurs. Thus, for the primary real estate market there was an increase in the unit price per 1 square

meter. This is the result of the growing public interest in alternative forms of allocation of accumulated funds. In three cases, there was a decrease in the price per unit of services, resulting from a high level of supply with a simultaneous decrease in demand for services.

Research in the area of "expenses for income generation" has shown that entrepreneurs have often shown no change in this regard. Hairdressing and beauty services bear large variable expenses. This change is due to the obligation of service providers to provide a workplace in accordance with sanitary requirements.

Taking into account the "time perspective", entrepreneurs take the market situation in "black colors" and, therefore, their business situation in the next 12 months. Entrepreneurs notice that they are not out of touch with the environment and depend on it, an imbalance in the transport industry can lead to an increase in prices expressed in logistical terms, and problems with suppliers will lead to an imbalance in the activities carried out and the search for new sources of components or necessary goods for services.

The result of the analysis is the "assessment of financial liquidity" of business entities. So, at 5 enterprises there is a threat to the operation of business, entrepreneurs believe that this is due to a decrease in demand and margin per unit of service, with little or no provision of financial capital. In other subjects, threats in the environment are noticeable that may affect the enterprise performance, however, during the exploration period they have not yet formulated their opinion, they feel doubts about the future, but this is still "in question".

The result of someone else's research, presented in Figure 2, illustrates how Internet advertising companies relate to the market situation in the context of the Covid-19 epidemic. Almost half of the respondents answered "definitely yes", and 38% - "most likely yes".

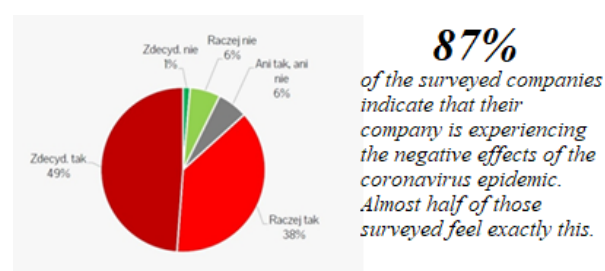


Fig. 2. Someone else's research on the impact of the epidemic on business situation in online advertising

Source: wyborcza.biz/Gieldy/.../iab-polska-87-firm-z-branzy-reklamy-online-odczuwa-negatywne.html, ISB News z 04/28/2020, 05/08/2020.

The National Association of Purchasing Managers' Index for industry shows a picture of the financial activity of managers. It is valued in the range of up to 100 pt, and 50 pt are assumed to be neutral. The results above 50 points are positive, the closer to 0 points, the worse the score. The National Association of Purchasing Managers' Index in Poland in March 2020

fell to 42.4 points, in April it reached 31.9 points (this is the lowest indicator since the beginning of the research in 1998), in May - 40.6 points, in June - 47.2 p. The change +6.6 in June shows that managers perceive the business situation more positively. However, the result has not yet reached the so-called neutral result, that is, 50 pt. The last time a neutral indicator of the National Association of Purchasing Managers' Index received by the Polish economy was in October 2018.

Table 3. Comparison of the National Association of Purchasing Managers' Index in Poland, Germany and France

State/month	03/2020	04/2020	05/2020	06/2020
Poland	42.4	31.9	40.6	47.2
Germany	45.4	34.5	36.8	44.6
France	43.2	31.5	40.6	52.3

Source: own elaboration based on <https://pl.tradingeconomics.com/>, 07/15/2020.

To compare National Association of Purchasing Managers' Index in Poland, the author cited the results of the National Association of Purchasing Managers' Index obtained in France and Germany. Managers in France are increasing their financial activity; however, the National Association of Purchasing Managers' Index in Germany is at a lower level than the Polish National Association of Purchasing Managers' Index. This is a very adverse outcome for the Polish economy, as Polish trade exchange with its western neighbor is on an upward trend and in 2019 amounted to a record 123 billion euros. That in the situation of a decrease in the financial activity of German companies may have a significant impact on a decrease in goods turnover, this, in turn, will lead to a reduction in financial resources in the turnover of the Polish economy.

7. Conclusions of the research

The presented research results indicate that entrepreneurs are experiencing uncertainty about the near future due to decrease in price and demand, which, in turn, leads to the oscillation in the financial economy at enterprises.

Service enterprises, especially micro-sized enterprises, do not have the financial capital needed to survive in an economic downturn at the market. State aid from the financial side is, perhaps, insufficient, but it has a positive response and interest from entrepreneurs who notice problems in formal solutions, not adapted to the current legal situation.

What will happen to the economy in the coming months? Some economists predict deterioration in macroeconomic indicators that may occur in late September or early October. The time required for the economy to surmount the crisis is estimated at 2-3 years.

References

1. K. Beyer, *From the agrarian era to the knowledge-based economy*, Research and works of the Faculty of Economics and Management, No. 30 (2012)
2. R. Czystowski, *Coronavirus in Lubuskie Voivodeship: the number of new cases as of July 16*, gospodarka300gospodarka.pl/live/koronawirus-lubuskie-liczba-nowych-zachorowan (2020)
3. ed. D. Jegorow, *Person-Economy. Cooperation-Development. Local and Global Perspective*, Civis&Sun Solution Publ. (2013)
4. T. Kupczyk, M. Stor, *Competence Management. Theory, Research and Practice of Business*, University of Economics in Wrocław (2017)
5. K. Safin, *Family businesses: the essence and strategic behavior*, Oskar Lange Academy of Economics (2007)
6. M. Sidor-Rządkowska, *Small Business HR, Management* Wolters Kluwer, Warszawa (2010)
7. E. Stolarczyk-Ambroziak, *Continual learning in the process of creating a learning society and a knowledge-based economy*, www.mentor.edu.pl/artukul/index/numer/2/id/12 (2020)
8. A. Szplit, J. Fudaliński, P. Markiewicz, Ch. Smutek, *Organization development strategies*, Antiqua Publ. (2002)
9. J. Szymczak, *2 million of unemployed by the end of 2020? According to the NFZ, we will face economic stagnation*, OKO.press (2020)
10. A. Toffler, *The third wave*, PIW Publ. (1985)
11. O. Torres, P. A. Julien, *Specificity and Denaturing of Small Business*, *International Small Business Journal*, Vol. 23, No 4 (2005)
12. *France heading for worst post-war downturn, finance minister warns*, France 24 with AFP and Reuters, www.france24.com (2020)
13. *Law on Entrepreneurs*, 03/06/2018, Art. 7 (2018)
14. *Law on amendments to the Law on particular solutions related to the prevention, counteraction and control of COVID-19, other infectious diseases and emergencies caused by them, as well as some other laws*, 03/31/2020, *Legislative Bulletin*, prov. 568 (2020)
15. *Law on specific support tools in connection with the transmission of the virus SARS-CoV - 2*, 04/16/2020, *Legislative Bulletin*, prov. 695 (2020)
16. *Law on amendments being made to some laws on protective activities in connection with the transmission of the virus SARS-CoV - 2*, 05/14/2020, *Legislative Bulletin*, prov. 875 (2020)
17. *Law on allowances for the assessment of bank credits provided to entrepreneurs affected by the consequences of COVID-19, and on a simplified procedure for approval of the contract in connection with the onset of COVID-19*, 06/19/2020, *Legislative Bulletin*, prov. 1086 (2020)
18. Main Statistical Office (2020)
19. Labor Office of the Voivodeship in Zielona Góra, zielonagora.praca.gov.pl (2020)

20. wyborcza.biz/Giedy/.../iab-polska-87-firm-z-branzy-reklamy-online-odczuwa-negatywne.html, ISB News from (2020)
21. PMI By IHS Markit, <https://www.markiteconomics.com/public?language=pl> (2020)
22. <https://pl.tradingeconomics.com/> (2020)