



Available online at www.sciencedirect.com



Procedia Computer Science 207 (2022) 3124-3133



www.elsevier.com/locate/procedia

26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES 2022)

Managing Unemployment under COVID-19 Conditions (States of Emergency or Crisis)

Małgorzata Porada - Rochoń^a*, Iga Rudawska^b, Barbara Kryk^c, Malgorzata Godlewska^d Sylwia Morawska^e, Przemysław Banasik^f, Daria Jaskuła^g, Natalia Skalska^h

^{abc} Institute of Economics and Finance, University of Szczecin, 71-101 Szczecin, Poland

d,e Department of Administrative and Financial Corporate Law, SGH Warsaw School of Economics, 02-787 Warsaw, Poland

^f Faculty of Management and Economics, Gdańsk University of Technology, Gdańsk, Poland

^{gh} Students of the Faculty of Economics, Finance and Management, University of Szczecin, 71-101 Szczecin, Poland

Abstract

Rising unemployment is one of the consequences of the COVID-19 pandemic in many countries. This, in turn, has forced policymakers to respond immediately with policy tools to minimize unemployment. The purpose of our study is to contribute to empirical knowledge by looking at activities of 40 local government units to counteract unemployment in the cross-border region on the Polish side. In doing this, our study contributes to the efforts to manage unemployment in times of COVID-19 and other crisis situations. The results show that most of the rural and rural-urban communes did not undertake diagnostic activities that would allow one to identify the economic sectors most affected by changes related to the COVID-19 pandemic, e.g., reduction in the number of employees, suspension, or liquidation of activities. According to LGUs surveyed, companies operating in rural-urban communes applied much more frequently for support for job protection in connection with the COVID-19 pandemic than companies located in rural communes.

The COVID-19 pandemic demonstrated the crucial role of LGUs in overcoming its impacts. The empirical results of this study (in-depth interviews) indicate that policy makers should pay more attention to consolidating or strengthening the role of LGUs in national disaster management and provide them with the competencies and resources necessary to deal with emergencies (in particular, they concern strengthening cooperation and coordination with other levels of government, effective communication and sharing of good practices also in cross-border areas). It would strengthen decision support systems (DSS) in the regions.

 $1877\text{-}0509 \ \ensuremath{\mathbb{C}}$ 2022 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0)

Peer-review under responsibility of the scientific committee of the 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES 2022) 10.1016/j.procs.2022.09.371

^{*} Małgorzata Porada - Rochoń. *E-mail address:* Malgorzata.porada-rochon@usz.edu.pl

© 2022 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0) Peer-review under responsibility of the scientific committee of the 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES 2022)

Keywords: Labour market; unemployment; local government; COVID-pandemic; Poland;

1. Introduction

Most economic crises can be predicted, unlike pandemics. The COVID-19 pandemic has had dramatic consequences on a global scale, both in social and humanitarian terms, but also in economic terms, and these consequences are only getting worse because of the constantly emerging outbreaks and new mutations of the virus. Data from World Health Organizations from 10 April 2022 [1] show that more than 496 million confirmed cases and more than 6 million deaths have been reported globally. In the case of confirming cases, Europe was the region most hit by COVID-19.

The consequence of the COVID-19 pandemic is a slowdown in the global economy and ongoing supply and demand shocks. The study of Skare et al. 2021 [2] shows that pandemic crises have long-lasting negative effects on the economy and especially on the tourism industry. Considering the best-case scenario, the travel tourism industry worldwide will drop on average from 2.93 percentage points to 7.82 in the total GDP contribution and Jobs in the travel tourism industry will decrease by 2.44 percentage points to 6.55. Undoubtedly, in addition to increases in unemployment in some sectors, there have been decreases in others, such as the IT and medical sectors. This, in turn, means that different countries, different regions are affected differently by unemployment and, therefore, require different policies to mitigate the effects of the pandemic and to stimulate the economy.

One of the elements of the economic slowdown has been rising unemployment. According to World Bank [3], the world unemployment rate increases from 5,37% in 2019 to 6,47% in next year. By analyzing selected world regions in the same period, the highest increase in unemployment was recorded in North America from 3,89% to 8,21% and in South Asia from 5.02% to 7.24% [4]. The highest unemployment rate was registered in Arab World in the year 2020: 11.49%. However, the biggest rebound of the stagnant economy was identified in the US unemployment aspect of from 4.4 in March 2020 to 14.7% in April 2020 [5]. Considering Europe, COVID-19 cases cause unemployment in Germany, Italy and the UK, while COVID-19 deaths cause unemployment in Italy and the UK [6].

Poland also saw its unemployment rate increase from 5.2% in 2019 to 6.2% in 2020. In the zachodniopomorskie voivodship it was 6.7% in 2019. 8.3%. The magnitude of the unemployment problem differs in scale and speed among countries, putting the governments of most countries under pressure to take action to mitigate the effects of Covid 19. Rising levels of unemployment have put the governments of most countries under pressure to implement measures to mitigate the effects of pandemic COVID-19.

The above described situation in the labor market required government intervention. Therefore, the research gap is to reveal what forms of intervention have been undertaken by Polish public authorities. The purpose of our study is to contribute to empirical knowledge by looking at activities of 40 local government units to counteract unemployment in the cross-border region on the Polish side. In doing this, our study contributes to the efforts to manage unemployment in times of COVID-19 and other crisis situations. The survey was twofold: the first stage was conducted between 22.11.2021 and 03.12.2021 through the questionnaire using the CAWI method and the second stage: an in-depth interview.

The structure of the paper is as follows. After introducing the problem of unemployment in times of COVID-19. Section two highlights the importance of local governments in countering the effects of pandemic COVID-19 on unemployment and points to actions taken in different countries. In the next section, the methodology is discussed, followed by the results and conclusions.

2. Unemployment under COVID -19 conditions - the role of the local government

The consequences of COVID-19 pandemic in increased unemployment forced most countries to implement immediate intervention measures to minimize unemployment. Undoubtedly, these tasks were not easy from today's perspective, due to various often disproportionate coexisting problems. Some sectors are easier to bring into the network, others are more difficult or even impossible. Then there is the dilemma of whether to help in the short- or long-term, and the scale of the people to be helped. And then there is the way to help, given that for many, work plays a key role in meeting social and psychological needs.

International Labour Standards Department, ILO in 2021[7] issued a recommendation highlighting a strategic approach to responding to emergencies, long-term, a phased, multi-track approach implementing coherent and comprehensive strategies to enable recovery and build resilience, emphasize, inter alia stabilizing livelihoods and income through immediate social protection and employment measures; promoting economic recovery for employment and decent work, opportunities and socio-economic reintegration; promoting sustainable employment and decent work, social protection and social inclusion, sustainable development, the creation of sustainable enterprises, in particular small and medium-sized enterprises, the transition from the informal to the formal economy, a just transition towards an environmentally sustainable economy and access to public services; conducting employment impact assessments of national recovery including programs...developing the capacity of governments. regional and local authorities, and of employers' and workers' organizations [7]. Table 1 indicates only the tool groups used in selected countries [8].

AustraliaUnemployment Insura Employer wage subsid Human Capital Devel General Business SupDenmarkEmployer Wage Subs Business lending prog	dy opment port					
Human Capital Devel General Business Sup Denmark Employer Wage Subs Business lending prog	opment port					
General Business Sup Denmark Employer Wage Subs Business lending prog	port					
Denmark Employer Wage Subs Business lending prog						
Business lending prog						
• • •	idy					
	grams					
General Business Sup	port					
Tax relief						
Germany Employer wage subsid	dy					
Business lending prog	grams					
General Business Sup	port					
Tax relief						
Norway General Business Sup	General Business Support					
Employer wage subsid	dy					
Unemployment Insura	ance					
Tax relief						
Business lending prog	grams					
Human Capital Devel	opment					
Unemployment Benef	ĩt					
Spain Employer wage subsid	dy					
Unemployment Insura	ance					
UK Employer wage subsid	dy					
Local Restrictions Su	oport Grant					
Human Capital Devel	opment					
General Business Sup	port					
Business lending prog	grams					

Table 1. Policy tools to minimize the effects of unemployment

USA	Direct cash transfer
	Unemployment Insurance
	Business lending programs
	Tax relief

Source: based on [8]

The Local Government Association report (2021) [9] points to the key role of local government in tackling unemployment caused by the COVID-19 pandemic and activating the local labor market. According to the American Progress Organization Report labor [10] Investing in state and local government jobs is critical to the delivery of services and economic security. Drawing on a report by the Institute of Science and Work [11], the Local Government Association said Report, it is essential that local governments work with the government at the earliest possible stage to mitigate the effects of long-term unemployment and to most effectively shape or redefine existing initiatives to support and invest in job creation.

Dutta and Fisher [12] draw attention to the enormous and direct importance of local governments in dealing with the consequences of the crisis. According to them, never has their role been so enormous, their basic functions have not been so radically expanded at such a rapid pace. The manner and speed with which these roles are assumed can condition the effectiveness of public support to protect basic welfare during a period of major social and economic change [12].

An interesting example is the United States, where the actions taken in response to COVID-19 were carried out at the state level, not the federal level [13,14]. Additionally, some actions or strategies were initiated at the city or county level, before being implemented throughout the state or later throughout the nation [15: 16]. Not to forget India, which has more than 250,000 local government units (gram panchayats), so globally, this was the largest and most expansive mobilization of local governments in response to COVID-19 [12]. The Philippine case study highlighted, among other key roles, that effective communication with the public and monitoring activities (e.g., population density, mobility) were factors that helped these local governments limit the damage caused by the pandemic [17].

Thus, the examples shown confirm the relevance of local narratives in addressing subnational issues. Another important aspect is cross-border cooperation between countries, also in terms of sharing good practice and, if possible, developing common solutions. This is even more important given that the important, pandemic has eliminated or discontinued cross-border cooperation in its broadest sense.

3.Methods and Materials

The aim of the study is to analyze the actions taken by local government units (LGU) to counteract unemployment in the cross-border region on the Polish side. In this article, the cross-border region of Mecklenburg-Vorpommern is analyzed on the Polish side. The questionnaire was sent to 132 local government units of the West Pomeranian Voivodeship, of which 40 participated in the survey, using the IBM SPPS program. The response rate was 30,30% (n=40 responses out of 132). The survey was carried out from 22.11.2021 to 03.12.2021. The survey used the CAWI (Computer Assisted Web Interview) method. The survey was supplemented by in-depth interviews with both entrepreneurs and local government units, including representatives from Poland and Germany. The obtained results are not representative for the entire population of local government units of the West Pomeranian Voivodeship because 40% of whom were urban-rural communes (16 out of 55), 37.5% were rural communes (15 out of 47), 15% were districts (6 out of 18) and 7.5% were urban communes (3 out of 11). None of the 3 cities with district rights participated in the study, nor did the West Pomeranian voivodship.

4. Research Findings

The results obtained show that only 15% of participants, i.e., 6 LGU (table 2), took steps to identify the economic sectors most affected by changes related to the COVID-19 pandemic, such as participants employees, suspension, or

liquidation of activities. Based on their knowledge, LGUs indicated the following industries most affected by changes related to the COVID-19 pandemic, such as reduction in employees, suspension or liquidation of activities according to the PKD classification: Section I - Activities related to accommodation and catering services (50% of respondents' indications); Section R - Activities related to culture, entertainment and recreation (47% of respondents' indications) and Section S - Other service activities (25% of respondents' indications). Interestingly, as many as 57% of LGUs indicated that enterprises operating in each LGU applied for support for job protection in connection with the COVID-19 pandemic, e.g., under the Anti-Crisis Shield.

According to LGU respondents, before the pandemic, the following "standard" tools to reduce unemployment were the following "standard" tools to reduce unemployment, such as: i) public works and intervention work programs (62%); ii) organizing socially useful work (60%) or iii) organizing internships (57%). The least used tool by LGUs to reduce unemployment was loans to entrepreneurs to create new jobs, which were participants' 10% of the LGUs surveyed. LGUs proposed a reduction to limit the reduction of employment during a pandemic, in particular such forms of support / assistance as: i) protection of employees against Covid-19 infection in the workplace (42%); ii) temporary reduction / suspension / release from obligations, COVID-19 taxes, social security rates, certain payments such as rent, communal fees (35%) or iii) subsidies and tax reliefs for the private sector (18%). The least frequently proposed form of support by LGUs was subsidized loans from public funds for enterprises to meet urgent capital and investment needs, which was provided by only 3% of the surveyed LGUs. LGU sources of financing the above-mentioned forms of support are national aid funds (from the state budget) for 38% of respondents, and own funds for 30%.

Table 2. Descriptive Statistics

	Ν	N MIN	MAX	Mean		Std. — Deviation	Variance	
				Statistic	Std. Error			
Type of LGU (JST)	40	1	5	2.10	.214	1.355	1.836	
Diagnostic activities carried out to identify the economic sectors most affected by changes related to the COVID-19 pandemic (IBG).	40	0	1	.15	.057	.362	.131	
Industries hardest hit by the COVID-19 pandemic: Section A - Agriculture, Forestry, Hunting, and Fishing (BSA)	40	0	1	.03	.025	.158	.025	
Industries hardest hit by the COVID-19 pandemic: Section F - Construction (BSF)	40	0	1	.13	.053	.335	.112	
Industries hardest hit by the COVID-19 pandemic: Section G - Wholesale and retail trade; repair of motor vehicles, including motorcycles (BSG)	40	0	1	.13	.053	.335	.112	
Industries hardest hit by the COVID-19 pandemic: Section H - Transport and storage (BSH)	40	0	1	.10	.048	.304	.092	
Industries hardest hit by the COVID-19 pandemic: Section I - Accommodation and Food Service Activities (BSI)	40	0	1	.50	.080	.506	.256	
Industries hardest hit by the COVID-19 pandemic: Section J - Information and Communication (BSJ)	40	0	1	.03	.025	.158	.025	
Industries hardest hit by the COVID-19 pandemic: Section P, Education (BSP).	40	0	1	.13	.053	.335	.112	
Industries hardest hit by the COVID-19 pandemic: Section Q - Healthcare and Social Work (BSQ)	40	0	1	.05	.035	.221	.049	
Industries hardest hit by the COVID-19 pandemic: Section R - Arts, entertainment, and recreation (BSR)	40	0	1	.47	.080	.506	.256	
Industries hardest hit by the COVID-19 pandemic: Section S - Other service activities (BSS)	40	0	1	.25	.069	.439	.192	
Have the enterprises operating in the LGU applied for support for the protection of jobs in connection with the COVID-19 pandemic, e.g., the anti-Crisis Shield? (WSP)	40	0	1	.57	.079	.501	.251	
"Standard" Unemployment Reduction Tools (Pre-pandemic): Public Works and Intervention Works Programs (PRP)	40	0	1	.62	.078	.490	.240	
"Standard "Unemployment Reduction Tools" (prepandemic): Organizing community work (OPS)	40	0	1	.60	.078	.496	.246	

Standard' unemployment reduction tools (before the pandemic): organizing internships (OST)	40	0	1	.57	.079	.501	.251
Standard" Unemployment Reduction Tools (Prepandemic): loans for entrepreneurs to create new jobs (PPR).	40	0	1	.10	.048	.304	.092
Standard' unemployment reduction tools (before the pandemic): subsidizing employment (SUZ).	40	0	1	.13	.053	.335	.112
Standard' unemployment reduction tools (before the pandemic): subsidies for starting a business (DPD)	40	0	1	.15	.057	.362	.131
Standard" Unemployment Reduction Tools (Prepandemic): neasures to promote the employment of disabled people (NIE)	40	0	1	.15	.057	.362	.131
Standard' unemployment reduction tools (before the pandemic): areer counseling and information (ZAW)	40	0	1	.15	.057	.362	.131
Forms of support / assistance activities proposed to enterprises to imit employment reduction during the pandemic: subsidies and ax reliefs for the private sector (ULP).	40	0	1	.18	.061	.385	.148
forms of support / assistance activities proposed to enterprises to imit employment reduction during the pandemic: subsidized public loans to enterprises to meet urgent capital and investment needs (SUB).	40	0	1	.03	.025	.158	.025
forms of support / assistance activities proposed to enterprises to imit employment reduction during the pandemic: Aid in the form f grants or repayable assistance under operational programs POM).	40	0	1	.10	.048	.304	.092
forms of support / assistance activities proposed to enterprises to imit employment reduction during the pandemic: wage subsidies nd social security contributions (DOP)	40	0	1	.10	.048	.304	.092
forms of support / assistance activities proposed to enterprises in rder to limit employment reduction during the pandemic: emporary reduction / suspension / release from obligations (e.g., axes, social security rates, certain payments such as rent, ommunal fees) (ZWO)	40	0	1	.35	.076	.483	.233
orms of support / assistance activities proposed to companies to mit job reduction during the pandemic: protecting workers from eing infected with Covid-19 in the workplace (PRA).	40	0	1	.42	.079	.501	.251
Forms of support / assistance activities proposed to enterprises COVID-19 limit employment reduction during the pandemic: in the case of cultural projects financed or cofinanced from public unds, resignation from recovering these expenditures if, due to the pandemic, these projects have not been implemented (KUL).	40	0	1	.10	.048	.304	.092
orms of support / assistance activities proposed to enterprises to imit employment reduction during the pandemic: Crisis Support or the Healthcare Sector (KRY)	40	0	1	.15	.057	.362	.131
ources of financing of the forms of support mentioned above: ational aid funds (from the state budget) (RO)	40	0	1	.38	.078	.490	.240
ources of financing of the above-mentioned forms of support: ubsidies from earmarked funds (e.g., the Guaranteed Employee Benefits Fund, the Tourist Guarantee Fund) (FUN)	40	0	1	.13	.053	.335	.112
ources of financing of the above-mentioned forms of support: EU mergency aid for Member States' liquidity for small businesses nd the healthcare sector and the most deprived (PUE).	40	0	1	.03	.025	.158	.025
ources of financing of the above-mentioned forms of support: rom the funds of the Operational Programs (POP).	40	0	1	.08	.042	.267	.071
ources of financing of the above-mentioned forms of support: rom the Government Fund for Local Investments (RFI)	40	0	1	.03	.025	.158	.025
ources of financing of the above-mentioned forms of support: wn funds (WA)	40	0	1	.30	.073	.464	.215
lave the institutions / departments / organizational units of LGUs ealing with providing aid proven successful in their operation?	40	0	2	.68	.083	.526	.276
(NS) orms of support / assistance activities offered to employees of nterprises: financial support for people who lose their jobs or are	40	0	1	.15	.057	.362	.131
elf-employed (SAM).							

Forms of support / assistance activities offered to employees of	40	0	1	.15	.057	.362	.131
enterprises: an additional care allowance, allowing parents to stay							
at home with their children without losing income (DZA).							
Forms of support / assistance activities offered to employees of	40	0	1	.13	.053	.335	.112
enterprises: psychological support provided by appropriate							
specialists remotely or by phone (PSY)							
Sources of financing of the above-mentioned forms of support:	40	0	1	.38	.078	.490	.240
national aid funds (from the state budget) (KPO)							
Sources of financing of the above-mentioned forms of support:	40	0	1	.05	.035	.221	.049
subsidies from earmarked funds (e.g., the Guaranteed Employee							
Benefits Fund, the Tourist Guarantee Fund) (GWA)							
Sources for financing of the above-mentioned forms of support: z	40	0	1	.08	.042	.267	.071
Operational Program funds (OPE).							
Sources of financing of the above-mentioned forms of support: z	40	0	1	.03	.025	.158	.025
Governmental Fund for Local Investments (FIL)							
Sources of financing of the above-mentioned forms of support:	40	0	1	.25	.069	.439	.192
own funds (FUW)							
Institutions / organizations with which the LGU cooperated in	40	0	1	.03	.025	.158	.025
reducing unemployment: the Regional Chamber of Commerce							
(RIG).							
Institutions / organizations with which the LGU cooperated in	40	0	1	.13	.053	.335	.112
reducing unemployment: Voivodeship Labor Office (WUP)				(0)			
Institutions / organizations with which the LGU cooperated in	40	0	1	.68	.075	.474	.225
reducing unemployment: District Labor Office (PUP)							
Have the indicated institutions / departments / organizational units	40	0	2	.75	.106	.670	.449
proven successful in their operation? (SPR)							
Do you know the so-called good practices in combating	40	0	1	.18	.061	.385	.148
unemployment applied abroad in partner communes / cities?							
(DOB)				1.0			
Did LGUs exchange good practices in this respect with foreign	40	0	1	.10	.048	.304	.092
partner communes / cities, etc.? (PRA)	40						
Valid N (COVID-19)	40						

Source: own study using the IBM SPSS version 26 program.

According to 89.3% of the LGUs surveyed, institutions / departments / organizational units of LGUs dealing with providing aid / distributing aid have proved themselves in their operation. According to 20% of respondents, the most popular forms of support / assistance activities offered to employees by LGUs were assistance for people requiring care and, according to 15% of respondents, additional care allowance, enabling parents to stay at home with children without losing income, and financial support for people losing their jobs or self-employed which were financed mainly from national aid funds (from the state budget) by 38% of the respondents and from their own funds by 25% of the respondents. 68% of the LGUs surveyed cooperated with the District Labor Offices in reducing unemployment, and 13% of the surveyed with the Voivodeship Labor Office. According to 75% of the LGUs surveyed, the institutions mentioned above have proven themselves to be successful.

Unfortunately, only 18% of the respondents know the so-called good practices in decreasing unemployment applied abroad in the partner communes / cities, and only 10% of the surveyed LGUs exchanged good practices in decreasing unemployment with foreign partner communes / cities, etc. The results of the in-depth interview indicate that in terms of cross-border cooperation, it is important to establish a timely and transparent dialogue with all stakeholders. It was shown that there are many interfaces between the different areas. These have already been identified and need to be continuously updated in the future. The lesson we can learn from this crisis is that we must never again be so unprepared, which means that we need to know our neighbor and his culture, we need to be interested in what the other side is doing for its own society and for the society of its neighbor in the cross-border region, and we need to know the administrative processes of the neighboring country. Only in this way can we effectively combat such situations should they arise in the future. The type of LGU is statistically significantly correlated with whether enterprises operating in each LGU apply for support for job protection in connection with the COVID-19 pandemic, e.g., the anti-crisis shield (see Table 3).

Table 3. Correlations coefficient (rho Spearman)

		WS	OS								GW
	Р	1	Т	PPR	SUZ	DPD	NIE	DOP	POP	SAM	А
		.348	.315	.527*	.597*	.664*	.579*	.426*	.335	.579*	.362
JS	С*		*	*	*	*	*	*	*	*	*
Т	Ι	.028	.048	.000	.000	.000	.000	.006	.035	.000	.022
	Ν	40	40	40	40	40	40	40	40	40	40

Source: own study using the IBM SPSS version 26 program.

That is, enterprises operating in rural communes applied for support for job protection less frequently in connection with the COVID-19 pandemic than those operating in rural-urban or urban communes. The type of local government unit is also statistically significantly correlated with the "standard" tools used by LGUs to reduce the phenomenon of unemployment, such as: i) programs for public works and intervention works; ii) organizing community work; iii) subsidizing employment; iv) business subsidies; or v) measures to promote the employment of disabled people. Moreover, there was also a statistically significant correlation between the type of LGUs and the form of support / assistance measures offered to enterprises in order to limit employment reductions during a pandemic, i.e., wage subsidies and social security contributions; sources of financing the forms of support: from the funds of the Operational Programs; a form of support / assistance activities offered to employees of enterprises: financial support for people who lose their jobs or the self-employed, or sources of financing of the above-mentioned forms of employee support: subsidies from special purpose funds (e.g. the Guaranteed Employee Benefits Fund, the Tourist Guarantee Fund. The results of the in-depth interview indicate that the local government unit played a huge role in counteracting the effects of the COVID-19 pandemic outbreak and helped to get through the pandemic period relatively smoothly.

5. Conclusions

Most of the rural and rural-urban communes did not undertake diagnostic activities that would allow to identify the economic sectors most affected by changes related to the COVID-19 pandemic, e.g., reduction in the number of employees, suspension, or liquidation of activities. According to LGUs surveyed, companies operating in rural-urban communes applied much more frequently for support for job protection in connection with the COVID-19 pandemic than companies located in rural communes. In rural communes, their financial departments or the Treasurer dealt with helping enterprises, as opposed to urban-rural communes, where, in addition to the financial department, also the tax and fees department was involved in helping entrepreneurs. Urban-rural communes, urban communes, and districts were more satisfied with the work of the above-mentioned institutions / organizations providing aid to entrepreneurs than rural communes. LGUs do not know and have not exchanged good practices in the field of job protection in connection with the COVID-19 pandemic with other domestic or foreign LGUs.

The Covid-19 pandemic has demonstrated the crucial role of local government units in overcoming its effects. The empirical findings of this study (in-depth interviews) indicate that policy makers should pay more attention to grounding or improving the role of LGUs in national disaster management and provide them with the competencies and resources necessary to deal with emergencies. There is a need to strengthen cooperation and coordination with other levels of government. Communication with the public and the possibility to adapt actions to the local situation seem to be a necessity.

There is a need to coordinate cross-border cooperation with local government units under crisis conditions, in particular, the sharing of good practices in crisis mitigation. The lesson from the Covid -19 pandemic shows that there is a clear gap in this area.

Acknowledgements

The project is financed within the framework of the Ministry of Science and Higher Education program under the name 'Regional Excellence Initiative' in the years 2019–2022; project number 001/RID/2018/19; the amount of funding PLN 10,684,000.00

The research results are related to the project "Good practices of territorial self-government units for counteracting unemployment in a cross-border region under Covid -19 (emergency or crisis) conditions" FMP - 0470-21-C Project is co-financed by the European Union from the European Regional Development Fund and the state budget (SMALL PROJECT FUND within the framework of the Interreg V A Cooperation Programme Mecklenburg-Vorpommern/Brandenburg/Poland in the European of Pomerania

References

- [1] WHO | World Health Organization (12.04.2022)
- [2] Marinko, Škare, Domingo, Riberio Soriano, Małgorzata, Porada-Rochoń (2021) "Impact of COVID-19 on the travel and tourism industry." *Technological Forecasting and Social Change* 163: 120469, ISSN 0040-1625, https://doi.org/10.1016/j.techfore.2020.120469
- [3] World Unemployment Rate 1991-2022 | MacroTrends (12.04.2022)

[4] Unemployment rate in selected world regions 2020 | Statista (20.04.2022)

[5] Gezici, Armagan, Ozay, Ozge. (2020) "An Intersectional Analysis of COVID-19 Unemployment.".*Journal of Economics Race and Policy* **3**. 10.1007/s41996-020-00075-w

[6] Chi-Wei, Su, Ke, Dai, Sana, Ullah and Zubaria, Andlib (2021) "COVID-19 pandemic and unemployment dynamics in European economies." *Economic Research-Ekonomska Istraživanja*, doi: 10.1080/1331677X.2021.1912627

[7] ILO Standards and COVID-19 (coronavirus). wcms_780445.pdf (ilo.org) (19.04.2022)

[8] Rachel, Lipson, Jess, Northend and Jenna, Albezreh "Monitoring the Covid-19 Employment Response: Policy Approaches Across Countries" By (harvard.edu)

[9] https://www.pw.hks.harvard.edu/post/monitoring-the-covid-19-employment-response-policy-approaches-across-countries (19.04.2022)

[10] https://local.gov.uk/ (18.04.2022)

[11]https://www.americanprogress.org/article/investments-in-the-state-and-local-government-workforce-will-deliver-crucial-services-and-create-economic-security/ (19.04.2022)

[12] Anwesha, Dutta and Harry, W. Fischer (2021) "The local governance of COVID-19: Disease prevention and social security in rural India." *World Development* **138**, 105234, ISSN 0305-750X, https://doi.org/10.1016/j.worlddev.2020.105234.

(https://www.sciencedirect.com/science/article/pii/S0305750X20303612)

[13] Adolph, C., Amano, K., Bang-Jensen, B., Fullman, N., and Wilkerson, J. (2020) "Pandemic politics: Timing state-level social distancing responses to COVID-19." *Journal of Health Politics, Policy and Law* **46** (2): 211-233 8802162. doi:10.1215/03616878-8802162

[14] Lawrence, O Gostin, James, G. Hodge Jr, Lindsay, F. Wiley (2020) "Presidential Powers and Response to COVID-19" *JAMA* Apr 28, **323(16)**:1547-1548. doi: 10.1001/jama.2020.4335 [15] Gupta, Sumedha, Nguyen, Thuy, Dieu, Lozano-Rojas, Felipe, Raman, Shyam, Lee, Byungkyu, Bento, Ana, Simon, Kosali, Ilayperuma and Wing, Coady (2020) "Tracking Public and Private Responses to the COVID-19 Epidemic: Evidence from State and Local Government Actions." *NBER Working Paper* No.**w27027**, SSRN: https://ssrn.com/abstract=3586158

[16] White, E.R., Hébert-Dufresne, L (2020) "State-level variation of initial COVID-19 dynamics in the United States." *PLoS ONE* **15**(**10**): e0240648, https://doi.org/10.1371/journal.pone.0240648

[17] Talabis, S.D.A., Babierra, A.L., Buhat, C.A.H. et al. (2021) "Local government responses for COVID-19 management in the Philippines." *BMC Public Health* **21**, 1711, https://doi.org/10.1186/s12889-021-11746-0