Characteristics of Crisis Management Measures in the HR Area During the Pandemic in Hungary – Results of a Countrywide Survey of Organizations

Krisztina Dajnoki

University of Debrecen Faculty of Economics and Business, Böszörményi út 138, H-4032 Debrecen, Hungary, e-mail: dajnoki.krisztina@econ.unideb.hu

József Poór

J. Selye University Faculty of Economics and Informatics, Bratislavská cesta 3322, 945 01 Komárno, Slovalia, e-mail: poorj@ujs.sk

Ákos Jarjabka

University of Pécs Faculty of Business and Economics, Rákóczi út 80, H-7622 Pécs, Hungary, e-mail: jarjabka.akos@ktk.pte.hu

Botond Géza Kálmán

Budapest Metropolitan University, Institute of Business
Nagy Lajos király útja 1-9, 1148 Budapest, eupemq@instructor.metropolitan.hu

Zsolt Sándor Kőmüves

Hungarian University of Agriculture and Life Sciences Kaposvár Campus, Guba Sándor utca 40, H-7400 Kaposvár, Hungary, e-mail: Komuves.Zsolt.Sandor@uni-mate.hu

Beáta Pató Szűcs

Eötvös Loránd University Faculty of Social Sciences, Egyetem tér 1-3, H-1053 Budapest, Hungary, e-mail: szucs.beata@sek.elte.hu

Katalin Szabó

Hungarian University of Agriculture and Life Sciences Gödöllő Campus, Páter Károly utca 1, H-2100 Gödöllő, Hungary, e-mail: Szabo.Katalin@uni-mate.hu

Szilvia Szabó

Budapest Metropolitan University Institute of Business, Nagy Lajos király útja 1-9, H-1148 Budapest, Hungary, e-mail: szszabo@metropolitan.hu

Zsuzsanna Szeiner

J. Selye University Faculty of Economics and Informatics, Bratislavská cesta 3322, 945 01 Komárno, Slovakia, e-mail: szeinerzs@ujs.sk

Arnold Tóth

Budapest Business School Faculty of Finance and Accountancy, Buzogány utca 10-12, H-1149 Budapest, Hungary, e-mail: toth.arnold@uni-bge.hu

Imola Csehné Papp

Eötvös Loránd University Faculty of Education and Psychology, Kazinczy u. 23-27, H-1075 Budapest, Hungary, e-mail: papp.imola@ppk.elte.hu

András István Kun

University of Debrecen Faculty of Economics and Business Böszörményi út 138, H-4032 Debrecen, Hungary, e-mail: kun.andras.istvan@econ.unideb.hu

Abstract: The current paper is the second part of the study "Characteristics of Crisis Management Measures in the HR Area During the Pandemic in Hungary – Literature Review and Methodology". Based on two waves of a questionnaire survey conducted during the first and second waves of the COVID-19 pandemic, this article presents prevalent HRM reactions of Hungarian organisations (companies and institutions) and tests if these reactions are connected to the organisation's size (employee headcount and revenue), ownership and sector (main field of activity). The testing is conducted separately on two relatively large non-representative samples (N1 > 300, N2 > 900) employing statistical (rank-correlation,

rank-sum, and association) analyses. One of the characteristic changes the pandemic triggered in the companies and institutions is that the functions of HRM have been expanded with new activities (e.g. home office, health protection). The respondents indicated considerable new efforts, especially after the second wave, such as replacing plans, providing new employees, and addressing employees' social problems. Our research also highlighted that smaller SMEs regard it as less important to maintain and operate an active HRM function even during the pandemic. With the increase in organisational size (employee headcount and revenue) home office, the new workplace safety and occupational health measures, the hiring freeze and downsizing are substantially more frequent at larger companies as opposed to smaller ones. We are aware of the fact that the practices applied by a country of 10 million people during the pandemic have no substantial global influence; at the same time, the experiences gained and presented here can expand and diversify the methods and toolkits applied in this area.

Keywords: COVID-19; pandemic; crisis; human resource management; home office, survey

1   Introduction

The current article is the second, empirical part of the study "Characteristics of Crisis Management Measures in the HR Area During the Pandemic in Hungary – Literature Review and Methodology". The previous paper consisted of the literature review that provided a background for the research as well as the hypotheses derived from the reviewed papers and the description of the methodology of the surveys and the hypothesis testing. Therefore, we only provide a brief summary here.

The research this paper investigates the questions of what responses, solutions, and practices organisations used against the appearance of the COVID-19 pandemic and what kind of changes it has inducted, both in general and in particular within the field of Human Resource Management (HRM).

In the first part of our study, we presented a literature review describing the main effects of the first two pandemic waves on economies, organisations, and particularly on HRM contexts and practices. The empirical research hypotheses presented in the first part of the study are based on the examinations by [5] and [15]. To build a better connection between the first and the second parts of our study, we repeat the hypotheses below (see the detailed connections of the hypotheses to the literature as well as the description of the methodology in the first part of the study).

H1: The typically occurring HRM crisis management measures caused by the effects of the COVID-19 pandemic are primarily related to headcount management/workforce requirements (hiring freeze, downsizing, downsizing of temporary staff, reducing labour requirements by automation/technical solutions and the innovative handling of work hours (reduction of working hours, enabling/directing home offices, elaboration/re-planning of replacement plans).

H2: Among the responding organisations the most frequently applied HR crisis management measures are correlated with the organisation's revenue and headcount: enabling/directing home offices, new occupational health and safety measures, hiring freeze and downsizing are considerably more frequent at larger companies than at smaller ones.

The H2 hypothesis is broken down into sub-hypotheses:

> H2a: Among the responding organisations the most frequently applied HR crisis management measures are correlated with the organisation's two main size indicators: revenue and headcount.

> H2b: Enabling/directing home offices, new occupational health and safety measures, and reducing the risks of the pandemic HR crisis management measures are correlated with the organisation's two main size indicators: revenue and headcount.

> H2c: The "No task" attitude is typical mainly at organisations that are smaller according to revenue and headcount.

We divided the reporting of the result into two sub-sections by the two hypotheses. In both parts we follow the methodology described in the paper "Characteristics of Crisis Management Measures in the HR Area During the Pandemic in Hungary – Literature Review and Methodology": frequency and rank-correlation and associational analyses, and rank-sum tests are conducted.

The data were collected in two phases of a questionnaire survey during the first two waves of the pandemic (between 12 June and 31 July 2020 and between 01 August and 15 November 2020), resulting in 508 and 1,041 responses, respectively. Since the samples during the two survey phases do not match, the results are not directly comparable; thus, we analyze them in the present study separately. The demographics of the samples are described in the first part of our article. The same questionnaire was used during both survey phases (in original language: http://limesurvey.szie.hu/index.php/44678?lang=hu; the authors will provide the English translation electronically on request).

The methods of analysis are kept simple, but are adequate for testing our hypotheses (for the detailed description, see the Material and methodology section of the first part of our article).

Conclusions and the discussion of the study's limitations close the article.

2   Results from Two Questionnaire Survey Waves

In the current section, we are presenting the tests of the two main (and three sub-) hypotheses in two consecutive sub-sections.

2.1   Examination of the First Hypothesis

In the first phase of our research, – which comprises the examination of the first wave of the pandemic – we investigated what HR crisis management measures were introduced by the respondent organisations caused by the appearance of the coronavirus pandemic. Figure 1 describes the typical crisis management measures identified by the research results.

An overwhelming majority of the respondent organisations (86%) concluded at the first wave of the pandemic that some measures were necessary for the HR area, while only 13.8% indicated that they characteristically did not have any HR tasks at the beginning of the crisis situation.

New occupational health and work safety measures were indicated in the highest proportion (82%) as a task that appeared to some extent, of which a considerable percentage of respondents (42%) indicated that it was highly characteristic. Enabling/directing home offices was present in a similarly high percentage (81%) in the practice of the organisations, in such a way that over half of them (53%) selected the highly characteristic category.

In the sample elaboration/re-planning of replacement plans, and addressing employees' social problems appeared the third and fourth place as HR interventions with similar percentages (71-69%).

The next two places among somewhat typical solutions are supporting personal development (57%) and hiring freeze (55%). At the former, the highly typical marking is 14%, while at the latter it is higher, 30%.

It can be established that among the studied 19 HR measures, respondents marked a dozen as non-existent in their practice. There are (in the least typical order): revising the equal opportunities strategic plan (82%), pay reduction (78%), downsizing of temporary staff (76%), reducing labour requirements by training, development (75%), reducing labour requirements by automation/technical solution (73%), reducing fringe benefits (73%), revising the performance appraisal system (70%), downsizing (65%), revising the incentive scheme (65%), pay freeze (62%), reduction of working hours (57%) reducing the risks of the pandemic through training (56%).

In the survey of the second wave of the pandemic, we also examined what HR crisis management measures were introduced by the respondent organisations caused by the appearance of the coronavirus pandemic.

Figure 2 summarises the data of the second wave and presents what HR crisis management measures characterised the respondent organisations, and to what proportion of the organisations the measures extended to.

A substantial percentage of organisations (69.1%) considered that HR had tasks related to the effects of the pandemic. I.e. less than one-third of them did not see a reason for intervention by the HR area to a low, medium, or high extent. Of these

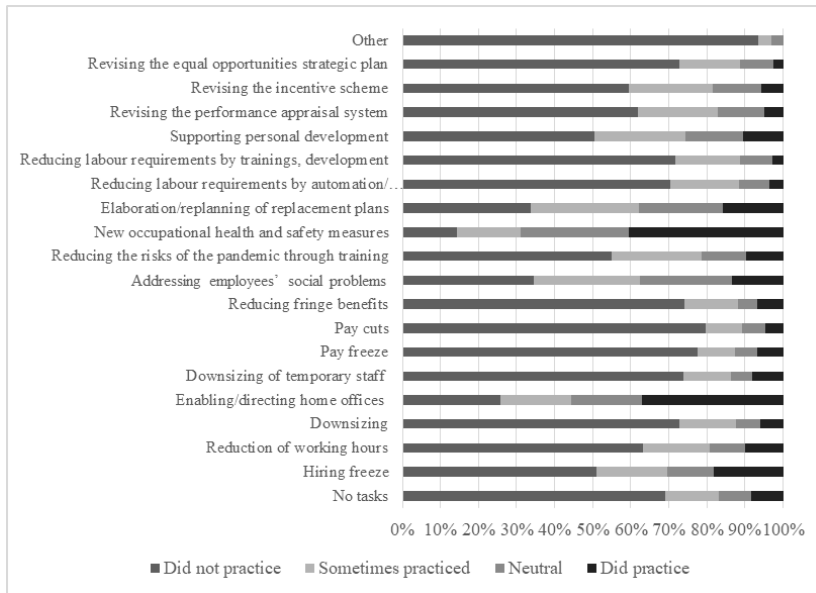8.3% of respondents very strongly did not see HR tasks appear in relation to the pandemic.

Figure 1
Typical crisis management HR measures in the first phase

Figure 2
Typical crisis management HR measures during the second wave

The measures marked by most respondents as characteristic at least to a low extent: "New occupational health and safety measures" (86%), "Enabling/directing home offices" (74%), "Elaboration/re-planning of replacement plans" (66%) and "Addressing employees' social problems" (65%). But for nearly 50% of organisations (45-50%) "Supporting personal development", "Hiring freeze" and "Reducing the risks of the pandemic through training" was also typical. At 30-41% of organisations "Revising the incentive scheme", "Revising the performance appraisal system" (the score of these being close to each other is a good sign and may suggest an integrated approach to these two areas), and "Reduction of working hours" to some extent. Less than 30% of respondents indicated "Reducing labour requirements by automation/technical solution", "Reducing labour requirements by training, development", "Downsizing", "Revising the equal opportunities strategic plan", "Downsizing of temporary staff" and "Reducing fringe benefits". The two last places with under 25% were "Pay freeze" and "Pay reduction". These percentages show that (at least based on the answers of the respondents) proactive and forward-looking solutions, those seeing the remedy in development, were more frequent. It may be separately highlighted that from the ranking the effort is evident to provide production capacity by physical or human capital investment (technological development, training). These are forward-looking solutions even without the pandemic situation, but the current situation may have given them momentum.

If we only consider the highly typical markings, then in the second wave of the pandemic the most frequent HR measures were „New occupational health and safety measures" (28%), "Addressing employees' social problems" (24%), "Elaboration/re-planning of replacement plans" (22%). Furthermore, marked 10-20% were "Enabling/directing home offices", "Supporting personal development", "Revising the incentive scheme", "Hiring freeze", "Revising the performance appraisal system" and "Reducing the risks of the pandemic through training". At this level of importance, other HR solutions were under 10%.

2.2 Examination of the Second Hypothesis

According to the description in the methodology chapter, we first conducted rank correlation studies, specifically on each sample separately and in chronological order.

The rank correlation with the headcount variable is shown in diminishing order of strength in Table 1, omitting the non-significant variable pairs.

Table 1

Rank correlation between HR measures and headcount (first sample)

Measures	N	Spearman's rho
New occupational health and safety measures	363	0.419***
Elaboration/re-planning of replacement plans	360	0.304***

Downsizing of temporary staff	358	0.287***
No tasks	*339*	*−0.250****
Enabling/directing home offices	363	0.247***
Addressing employees' social problems	362	0.223***
Hiring freeze	360	0.190***
Reducing labour requirements by automation/ technical solution	359	0.175**
Reducing labour requirements by training, development	357	0.141**
Reducing the risks of the pandemic through training	360	0.137**

* $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$, rank correlation cases with over 0.200 absolute value marked with a grey background, negative values with italics

The rank correlation with the revenue variable is shown in diminishing order of strength in Table 2, omitting the non-significant variable pairs.

Table 2

Rank correlation between HR measures and revenue (first sample)

Measures	*N*	**Spearman's rho**
New occupational health and safety measures	358	0.414***
Elaboration/re-planning of replacement plans	355	0.277***
Downsizing of temporary staff	358	0.267***
No tasks	353	0.266***
Enabling/directing home offices	*334*	*−0.233****
Addressing employees' social problems	357	0.182**
Hiring freeze	355	0.161**
Reducing labour requirements by automation/ technical solution	355	0.160**
Reducing labour requirements by training, development	354	0.120*
Reducing the risks of the pandemic through training	352	0.115*

* $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$, rank correlation cases with over 0.200 absolute value marked with a grey background, negative values with italics

The rank correlation with the headcount variable is shown in diminishing order of strength in Table 3, omitting the non-significant variable pairs.

Table 3

Rank correlation between HR measures and headcount (second sample)

Measures	*N*	**Spearman's rho**
Enabling/directing home offices	979	0.323***
New occupational health and safety measures	974	0.269***
Reducing the risks of the pandemic through training	973	0.253***
Elaboration/re-planning of replacement plans	972	0.242***
Reducing labour requirements by training, development	967	0.201***
Addressing employees' social problems	975	0.187***

Downsizing of temporary staff	974	0.173***
Hiring freeze	973	0.152***
Reducing labour requirements by automation/ technical solution	968	0.151***
Revising the equal opportunities strategic plan	968	0.138***
Revising the performance appraisal system	969	0.122***
Supporting personal development	971	0.106**
No tasks	*926*	*−0.096***
Revising the incentive scheme	970	0.085**
Pay freeze	977	0.081*
Downsizing	977	0.079*

* *p* < 0.050, ** *p* < 0.010, *** *p* < 0.001, rank correlation cases with over 0.200 absolute value marked with a grey background, negative values with italics

The rank correlation with the revenue variable is shown in diminishing order of strength in Table 4, omitting the non-significant variable pairs.

Table 4

Rank correlation between HR measures and revenue (second sample)

Measures	*N*	Spearman's rho
Enabling/directing home offices	957	0.328***
New occupational health and safety measures	952	0.313***
Elaboration/re-planning of replacement plans	950	0.203***
Addressing employees' social problems	953	0.195***
Reducing the risks of the pandemic through training	951	0.186***
Downsizing of temporary staff	952	0.149***
Reducing labour requirements by training, development	945	0.145***
Hiring freeze	951	0.139***
Reducing labour requirements by automation/ technical solution	946	0.106**
Revising the performance appraisal system	947	0.098**
Supporting personal development	949	0.096**
No tasks	*906*	*−0.083***
Pay cuts	*955*	*−0.082***
Pay freeze	955	0.079*
Revising the incentive scheme	948	0.068*

* *p* < 0.050, ** *p* < 0.010, *** *p* < 0.001, rank correlation cases with over 0.200 absolute value marked with a grey background, negative values with italics

Chi-square (cross-table) analyses for the H2c hypothesis

At the actual and random distribution according to the headcount categories, the expected frequencies for the first sample are shown in Table 5.

Table 5

Considering the "No tasks" measure characteristic according to headcount categories (first sample)

How characteristic is the No task opinion?			Headcount categories (person)							Total
			0	1-9	10-49	50-250	251-500	501-2000	over 2000	
No task at all	No	Actual	8	44	42	45	27	28	14	208
		Expected	11.7	58.9	41.7	38.0	20.9	22.7	14.1	208.0
	Yes	Actual	11	52	26	17	7	9	9	131
		Expected	7.3	37.1	26.3	24.0	13.1	14.3	8.9	131.0
Medium level no task	No	Actual	11	63	52	55	30	33	19	263
		Expected	14.7	74.5	52.8	48.1	26.4	28.7	17.8	263.0
	Yes	Actual	8	33	16	7	4	4	4	76
		Expected	4.3	21.5	15.2	13.9	7.6	8.3	5.2	76.0
Very much no task	No	Actual	11	77	59	58	32	33	21	291
		Expected	16.3	82.4	58.4	53.2	29.2	31.8	19.7	291.0
	Yes	Actual	8	19	9	4	2	4	2	48
		Expected	2.7	13.6	9.6	8.8	4.8	5.2	3.3	48.0

According to the Table's data, in the two lowest headcount categories (0 and 1-9) the received frequencies are always below the expected value, meaning that the smallest organisations, in comparison to random distribution, answered more frequently than some extent they agree that they have No HR tasks. In the case of No task at all the value of Cramér's V is 0.266 ($p = 0.001$), thus here the correlation is significant. In the case of Medium level no task 1, at the Very much no task 3 expected cell values did not reach 5, thus here the test could not be performed. To remedy this, we created a dummy variable based on the headcount, with the value 1 if the organisation's headcount does not exceed 9, and with the value 0 if it is higher. By the application of this variable on a 2x2 matrix the test could be performed in the case of Medium level no task ($V = 0.227$, $p < 0.001$) and the Very much no task ($V = 0.192$, $p < 0.001$), with a significant result in both cases (to avoid data duplication we did not publish these Tables, since they are clear from the above Table).

At the actual and random distribution according to the revenue categories, the expected frequencies are shown in Table 6.

Table 6

Considering the "No tasks" measure characteristic according to revenue categories (first sample)

How characteristic is the No task opinion?	Annual budget/revenue in 2019							Total
	under 50 million HUF	51 - 100 million HUF	101 - 500 million HUF	501 million HUF - 2.5	2.51 - 25 billion	25.1 - 120 billion	over 100 billion HUF	

					HUF	billion HUF	HUF	HUF		
No task at all	No	Actual	40	16	32	29	60	15	12	204
		Expected	51.9	19.5	34.2	26.3	46.4	14.7	11.0	204.0
	Yes	Actual	45	16	24	14	16	9	6	130
		Expected	33.1	12.5	21.8	16.7	29.6	9.3	7.0	130.0
Medium level no task	No	Actual	53	21	45	34	70	21	14	258
		Expected	65.7	24.7	43.3	33.2	58.7	18.5	13.9	258.0
	Yes	Actual	32	11	11	9	6	3	4	76
		Expected	19.3	7.3	12.7	9.8	17.3	5.5	4.1	76.0
Very much no task	No	Actual	63	27	50	36	73	23	14	286
		Expected	72.8	27.4	48.0	36.8	65.1	20.6	15.4	286.0
	Yes	Actual	22	5	6	7	3	1	4	48
		Expected	12.2	4.6	8.0	6.2	10.9	3.4	2.6	48.0
Total		Actual	85	32	56	43	76	24	18	334
		Expected	85.0	32.0	56.0	43.0	76.0	24.0	18.0	334.0

* 1 EUR = 351.1 HUF [17]

The lessons of distribution according to the revenue categories are similar to the study conducted based on headcount. In the case of the at least low extent agreement those with revenue under HUF 501 million, at the other two dummy variables, those with revenue under HUF 101 million agreed more frequently than what would be expected without correlation. In the first case, the precondition of Cramér's V calculation is met, and according to this, the correlation was significant ($V = 0.246$, $p = 0.003$). Similarly to the solution applied in the case of headcount, we made a 2x2 matrix here as well. The values of the new revenue-based dummy were 0, if the indicated revenue was under HUF 100 million, and 1 if it was over that amount. The test runs in this way had a significant result in both cases (in the case of medium-level agreement: $V = 0.245$, $p < 0.001$; at a high-level: $V = 0.182$, $p = 0.001$).

Thus, in the first sample, we found evidence that H2c cannot be disregarded.

At the actual and random distribution according to the headcount categories, the expected frequencies are shown in Table 7.

Table 7

Considering the "No tasks" measure characteristic according to headcount categories (second sample)

How characteristic is the No task opinion?			Headcount categories (person)							Total
			0	**1-9**	**10-49**	**50-250**	**251-500**	**501-2000**	**over 2000**	
No task at all	No	Actual	19	94	135	151	58	95	89	641
		Expected	18.0	112.1	139.1	139.1	59.5	87.2	85.8	641.0
	Yes	Actual	7	68	66	50	28	31	35	285
		Expected	8.0	49.9	61.9	61.9	26.5	38.8	38.2	285.0
Medium level no task	No	Actual	23	120	165	176	72	112	102	770
		Expected	21.6	134.7	167.1	167.1	71.5	104.8	103.1	770.0
	Yes	Actual	3	42	36	25	14	14	22	156
		Expected	4.4	27.3	33.9	33.9	14.5	21.2	20.9	156.0
Very much no task	No	Actual	24	138	182	191	80	123	112	850
		Expected	23.9	148.7	184.5	184.5	78.9	115.7	113.8	850.0
	Yes	Actual	2	24	19	10	6	3	12	76
		Expected	2.1	13.3	16.5	16.5	7.1	10.3	10.2	76.0
Total		Actual	26	162	201	201	86	126	124	926
		Expected	26.0	162.0	201.0	201.0	86.0	126.0	124.0	926.0

In comparison with the first sample, it is a conspicuous difference that the organisations employing 0 people agreed the most frequently that HR tasks are unnecessary than what would be expected in the case of random distribution, moreover even less frequently. However, organisations employing 1-9 people showed characteristics similar to the earlier, and even organisations with less than 50 people seemed to „join" them. The Cramér's V calculation was only possible in the case of the first variable ($V = 0.139$, $p = 0.013$), which was significant. We transformed the headcount variable into a dummy again, but now (in light of the new tasks) we drew the line at 50 people rather than 10. In this way, the correlation was significant in the case of the Medium level no task ($V = 0.090$, $p = 0.006$) as well as the Very much no task ($V = 0.104$, $p = 0.002$). Thus, in summary, we are witnessing a phenomenon similar to the data collection during the first wave, with the difference that the behavior of organisations with no employees did not match the previous and the headcount limit was pushed higher.

At the actual and random distribution according to the revenue categories, the expected frequencies are shown in Table 8.

Table 8

Considering the "No tasks" measure characteristic according to revenue categories (second sample)

How characteristic is the No task opinion?			Annual budget/revenue in 2019:							Total
			under 50 million HUF	51 - 100 million HUF	101 - 500 million HUF	501 million HUF - 2.5 billion HUF	2.51 - 25 billion HUF	25.1 - 120 billion HUF	over 100 billion HUF	
No task at all	No	Actual	129	59	97	124	101	51	66	627
		Expected	139.8	63.0	105.9	114.2	92.7	47.8	63.7	627.0
	Yes	Actual	73	32	56	41	33	18	26	279
		Expected	62.2	28.0	47.1	50.8	41.3	21.2	28.3	279.0
Medium level no task	No	Actual	159	77	132	142	114	55	76	755
		Expected	168.3	75.8	127.5	137.5	111.7	57.5	76.7	755.0
	Yes	Actual	43	14	21	23	20	14	16	151
		Expected	33.7	15.2	25.5	27.5	22.3	11.5	15.3	151.0
Very much no task	No	Actual	179	87	144	152	123	64	84	833
		Expected	185.7	83.7	140.7	151.7	123.2	63.4	84.6	833.0
	Yes	Actual	23	4	9	13	11	5	8	73
		Expected	16.3	7.3	12.3	13.3	10.8	5.6	7.4	73.0
Total		Actual	202	91	153	165	134	69	92	906
		Expected	202.0	91.0	153.0	165.0	134.0	69.0	92.0	906.0

* 1 EUR = 351.1 HUF [17]

The result of the chi-square (cross-table) analyses performed on revenue categories showed marked differences between the two waves as well. In the second, it was only true for the lowest revenue category in the case of all three agreement variables that more respondents marked the proper level of the No task option than larger organisations. But in the case of No task, at all even the organisations under HUF 500 million agreed more with no action than the larger ones. The Cramér's V calculation was possible in the case of all three variable pairs, but it did not show a significant correlation in any of them. After transforming the revenue variables into dummies we were able to show significant differences according to revenue categories. In the case of No task at all the limit was HUF 500 million ($V = 0.113$, $p = 0.001$), HUF 50 million with Medium level no task ($V = 0.066$, $p = 0.046$), and Very much no task ($V = 0.066$, $p = 0.049$).

Conclusions

According to our first hypothesis (H1), the crisis management measures that typically occur in the HR sector due to the effects of the pandemic are primarily related to headcount management/workforce requirements. In the first phase of the research, respondents indicated the New occupational and health safety measures as the highest percentage, and the Enabling / directing home office was included in the practice of the organisations in a practically similar proportion. These measures were clearly necessary, as the cause of the crisis was a health problem attacking human resources, the coronavirus. Addressing employees 'social problems came in third, which in turn clearly indicates a paradigm shift. Downsizing used almost as a template in the management of previous crises was not among the top ten in the frequency ranking of the measures examined. Instead, Pay freeze, Hiring freeze, and Reducing working hours were chosen by the organisations surveyed. This is related both to addressing social problems and to the fact that companies have realised the danger of loss of knowledge due to Downsizing. So headcount management was really important, but HR has already done this based on a new paradigm. The growing importance of human capital measures is, therefore, in line with international experience [13].

In the crisis caused by the pandemic, many organisations focused on the safety, health, and well-being of employees [7] [22]. They tried to respond to the challenges with thoughtful planning and the development of employee's skills and competencies [12] [18]. The frequency of remote work has increased significantly worldwide [14]. This was also the most common reaction in our survey. Overall, the frequency of this was significantly higher in companies with more employees, especially in those with foreign ownership, which is also consistent with the literature [3]. However, in the first phase of the epidemic.it was precisely the large companies that introduced remote work less often [2], which is supported by the results of our study.

According to our second research hypothesis (H2), the most commonly used HR crisis management measures in the sample correlate with the organisation's revenue

and headcount: Enabling/directing home office [16]. New occupational and health safety measures [21]. Hiring freeze and Downsizing are significantly more common in larger firms than in smaller ones [9]. The rank correlation analysis, supplemented by a cross-tabulation analysis for the third sub-hypothesis, confirmed that the larger the relative headcount (H2a) and revenue (H2b) of an organisation, the more prone it is to practically all of the measures listed. The word "practically" is needed because Downsizing showed a significant correlation only for temporary workers.

The very weak correlation found between the "No" tasks attitude and the headcount category, and the revenue category shows that this attitude is more typical for smaller organisations. Cross-tabulation analyses have confirmed this, but also indicate that in this respect the limit between small and large organisations may have been different at each phase of the pandemic. This is also consistent with the results of international studies [1].

According to our results, nearly 10% of companies did not respond to the crisis at all. International data, on the other hand, show that SMEs, which are more common in our sample, responded more quickly and proactively compared to large companies [6], and their employees were more satisfied with the measures [10].

Among the typical HR measures, wage reductions were more typical of small companies, downsizing more for large ones [1]. Both wage cuts and downsizing were more typical of foreign-owned companies than domestic companies. It was observed that both previously indicated measures were proportional.

As the correlation in our results is weak, further research would be needed to substantiate this statement.

Limits and Future Plans

In the first and second phases of our research (i.e. the two waves of a questionnaire survey), which roughly coincided with the first and second waves of the pandemic, we reviewed the activities of nearly one and a half thousand Hungarian companies and institutions. We are fully aware that our sample is not representative. However, it is relatively large and heterogenous, thus the organisations participating in it represents different parts of the Hungarian economy.

According to [4] Budhwar and Cumming (2020), the COVID-19 crisis brought attention to the importance of an international perspective. In their view, the pandemic reminded us of the interconnectedness of the entire world. Therefore, studies from certain regions – such as the Hungarian example in this article – may provide an important local perspective on the pandemic's organisational management and may help us find global solutions. Our future plans include expanding the study in an international dimension: We started our research using an online survey in other eastern and central European countries such as Austria, Slovakia, Bosnia, and Romania. It can be stated that organisational responses to a pandemic must also consider national-organisational cultural differences.

As a conclusion of our article, let us mention the opinion regarding COVID of [8] Diamond (2020:13) the world-famous researcher of the effects crises and pandemics, 'the real threat to our civilisation is not posed by COVID, but rather by climate change, exhausting resources, and global inequalities".

References

[1]   Achou, B. D. Boisclair, P. d'Astous, R. Fonseca, F. Glenzer, P.-C. Michaud: Early Impact of the COVID-19 Pandemic on Household Finances in Quebec. Canadian Public Policy, 46(s3), 217-235, https://doi.org/10.3138/cpp.2020-087

[2]   Bartik, A. W., Cullen, Z. B., Glaeser, E. L., Luca, M.,Stanton, C. T. (2020) *What Jobs are Being Done at Home During the Covid-19 Crisis? Evidence from Firm-Level Surveys* (p. 26)

[3]   Borino, F., Carlson, E., Rollo, V., Solleder, O. (2021) International firms and COVID-19: Evidence from a global survey. *Covid Economics*, *75*(7), 30-60, https://www.researchgate.net/profile/Michiru-Kaneda-2/publication/351942767_

[4]   Budhwar, P., Cumming, D: New Directions in Management Research and Communication: Lessons from the COVID-19 Pandemic, British Journal of Management, 2020, Vol. 31, No. 3, pp. 441-443

[5]   Collings, D. D. Mcmakin, J., Nyberg, J. A., Wright, M. P. (2021): Strategic Human Resource Management andCOVID-19: Emerging Challenges and ResearchOpportunities., *Journal of Management Studies*, 58(5), 2-18, DOI: 10.1111/joms.12695

[6]   Costa, S., Santis, S. D., Monducci, R. (2022) Reacting to the COVID-19 crisis: State, strategies and perspectives of Italian firms. *Rivista Di Statistica Ufficiale/Review of Official Statistics*, *2022*(1) 73-107

[7]   Dennerlein, J. T., Burke, L., Sabbath, E. L., Williams, J. A. R., Peters, S. E., Wallace, L., Karapanos, M., Sorensen, G. (2020) An Integrative Total Worker Health Framework for Keeping Workers Safe and Healthy During the COVID-19 Pandemic. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *62*(5) 689-696, https://doi.org/10.1177/0018720820932699

[8]   Diamond, J. (2020), Turning Points from Nations in Crisis (in Hungarian), Akkord Publishing House, Budapest, Hungary. 13. The English version published in 2019, Diamond, J. (2019) Upheaval. New York: Little Browen Co

[9]   European Commission (2021): Telework in the EU before and after the COVID-19: Where we were, where we head to (No. JCR120945; p. 8). European Commission, 2020, https://ec.europa.eu/jrc/sites/default/files/jrc120945_policy_brief_-_covid_and_telework_final.pdf

[10]   Frutos-Bencze, D., Sokolova, M., Zubr, V., Mohelska, H. (2022) Job Satisfaction During Covid-19: Industry 5.0 as a Driver of Sustainable Development and Gender Equality. *Technological and Economic Development of Economy*, *28*(5), 1527-1544, https://doi.org/10.3846/tede.2022.17680

[11]   Hamouche S (2021) Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization* 1-16, https://doi.org/10.1017/ jmo.2021.15

[12]   Hamza Shuja, K., Aqeel, M., Foundation University Islamabad, Rawalpindi Campus, Islamabad, Pakistan, Jaffar, A., & Ahmed, A. (2020) Covid-19 Pandemic and Impending Global Mental Health Implications. *Psychiatria Danubina*, *32*(1), 32-35, https://doi.org/10.24869/psyd.2020.32

[13]   ILO (2020) A safe and healthy return to work during the COVID-19 pandemic available at: https://www.ilo.org/wcmsp5/groups/public/--- ed_protect/---protrav/---safework/documents/briefingnote/ wcms_745549.pdf (accessed 7 July 2021)

[14]   Koirala, J., Acharya, S. (2020) Dimensions of Human Resource Management Evolved with the Outbreak of COVID-19. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3584092

[15]   Lazányi, K. (2018): A bizalom hatása a munkaerő-piaci helyzetre. KÖZÉP-EURÓPAI KÖZLEMÉNYEK, 11(3), 128-138

[16]   Lewis, N.: HR Managers Rethink Their Role During the Coronavirus Pandemic" available at: https://www.shrm.org/hr-today/news/hr-news/pages/hr-managers-rethink-their-work-coronavirus-pandemic.aspx (accessed 1 June 2021) MNB: Hungarian National Bank (in Hungarian)

[17]   MNB (2021): Hungarian National Bank (in Hungarian) available at: https://www.mnb.hu/arfolyamok (accessed 28 June 2021)

[18]   Risley, C. (2020) Maintaining Performance and Employee Engagement During the COVID-19 Pandemic. *Journal of Library Administration*, *60*(6), 653-659, https://doi.org/10.1080/01930826.2020.1773716

[19]   Shinozaki, S., Rao, L. N. (2021) COVID-19 Impact on Micro, Small, and Medium-Sized Enterprises under the Lockdown: Evidence from a Rapid Survey in the Philippines. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3807080

[20]   Soomro, M. A., Ali, M. H., Tan, K. H., Kumar, A., Sinniah, S. (2022) Workforce resilience in the post-COVID-19 era: Differences based on manufacturing–service orientation and firm size. *Production Planning & Control*, 1-13, https://doi.org/10.1080/09537287.2022.2106446

[21]   Weidemeyer, F.: COVID-19 crisis management: ten better questions to ask
        available   at: https://www.ey.com/en_gl/covid-19/covid-19-crisis-
        management-essential-ten-better-questions-to-ask (accessed 1 June 2021)

[22]   Wu, L.-K., Su, W.-H., Hsiao, S.-H., Hou, M.-F. (2020) Preparedness for the
        next emerging infectious disease outbreak by implementing strategic human
        resource management. *Journal of the Chinese Medical Association*, *83*(10),
        973-974, https://doi.org/10.1097/JCMA.0000000000000423