ORIGINAL PAPER Received: 05.12.2023

Accepted: 28.01.2024

### THE SENSITIVITY OF EMPLOYMENT IN THE HOTEL INDUSTRY TO THE COVID-19 PANDEMIC: A CASE STUDY OF POLAND

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### **ABSTRACT**

Motives: The COVID-19 pandemic has presented an unprecedented disruption to the global tourism economy. The diminished demand for hotel services, coupled with substantial operational uncertainty, compelled hoteliers to adopt survival strategies, often entailing workforce reductions.

Aim: The objective of the article was to assess the influence of the COVID-19 pandemic on employment levels in hotel establishments in Poland and to suggest a strategy that would enable these facilities to navigate similar challenges in the future.

Results: The article explores the sensitivity of employment in the hotel industry to the COVID-19 pandemic, focusing on a case study of Poland. It highlights significant changes in the hotel labour market during the COVID-19 pandemic. The study includes a detailed analysis of individuals working in the hotel industry from 2012 to 2021. Additionally, the impact of the COVID-19 pandemic on employment in Polish hotels was examined based on the collected primary data. The research findings affirm the industry's susceptibility to pandemic risks, but they indicate that appropriate measures can mitigate negative effects. Consequently, the article proposes strategies to assist hotel facilities in overcoming similar challenges in the future.

Keywords: hotel industry, hotel enterprise, employment, labour market, COVID-19 pandemic

### INTRODUCTION

The hotel industry constitutes a crucial component of the tourism economy, providing accommodation, meals, entertainment, and various tourist services. Recognized for its labour-intensive nature, the industry encompasses diverse aspects of operations, including guest services, building maintenance, marketing, kitchen, and restaurant services, among others. Thus, the hotel sector plays a pivotal role in attracting tourists, generating employment opportunities, and bolstering local economies. This, in turn, contributes significantly to the overall development of the tourism sector within a specific region.

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The COVID-19 pandemic, caused by the SARS-CoV-2 coronavirus, marked an unprecedented disruption in the global economy, particularly affecting the tourism sector (Tokarz-Kocik et al., 2023). According to the World Tourism Organization (UNWTO), the pandemic led to a significant reduction of approximately 1.1 billion international tourists and posed a threat to 100-120 million jobs (Chen et al., 2023). Two key factors contributed to this impact (Gössling et al., 2020). Firstly, there was a diminished demand for tourist services, including hotel services, due to prevailing uncertainties (Sharma & Nicolau, 2020). Secondly, administrative restrictions were imposed, limiting movement, particularly international travel. To navigate the challenges posed by the COVID-19 crisis, numerous hotel companies worldwide opted for workforce reductions through layoffs (Kim et al., 2023), voluntary retirements, and the substitution of full-time employees with part-time or contract workers (Filimonau et al., 2020).

In Poland, throughout the pandemic period (i.e., from March 2020 to March 2022), hotels and similar establishments faced numerous restrictions stemming from border closures, specific movement regulations, and limitations on accommodation availability for tourists. Following the declaration of an epidemic threat in Poland on March 14, 2020, some hotel facilities were repurposed as isolation centers or designated for individuals undergoing quarantine. Starting April 1, 2020, activities related to operating hotel facilities were curtailed, with access granted solely to individuals carrying out professional duties, including those on business trips (Podhorodecka & Bak-Filipek, 2022). The provision of hotel services was permitted only from May 4, 2020, until the early days of November 2020. Subsequently, on November 7, 2020 (amid the second wave of the pandemic), the operations of hotel facilities faced renewed limitations. These establishments were accessible solely to a limited group of guests, such as business travelers, medical professionals, patients, and their caregivers. The implementation of these restrictions led to significant declines, with hotel facilities experiencing over a 70% decrease in November 2020 (in comparison

to the same month in 2019), and by December 2020, these declines had escalated to nearly 80% (GUS, 2021; 2023). The third wave of the pandemic, occurring from March 20 to April 9, 2021, resulted in the suspension of hotel operations, excluding employee hotels, and the provision of accommodation exclusively for business trips. Hotels were permitted to reopen on a larger scale from June 2021, albeit with restrictions on guest numbers. During the fourth wave of the COVID-19 pandemic (starting December 1, 2021), only 50% of hotel facilities were accessible to unvaccinated individuals, while the remaining places were reserved for those able to demonstrate COVID-19 vaccination. As of March 1, 2022, all restrictions on occupancy were lifted, with only the continued requirement to wear masks in enclosed spaces. In April 2022, the mandatory mask-wearing in tourist and sports facilities was lifted as well (Podhorodecka & Bak--Filipek, 2022).

The pandemic had a significant impact on hotel occupancy rates, with the percentage of guests staying in hotels in Poland declining from 49% in 2019 to 26% in 2020 and slightly recovering to 29% in 2021 (*Hotel market in Poland – REPORT 2022*, 2022). The diminished demand for hotel services, coupled with operational uncertainties, compelled hoteliers to adopt survival strategies, often involving workforce reduction. The primary objective of this article is to assess the repercussions of the COVID-19 pandemic on employment levels within hotel facilities in Poland. Additionally, the article aims to propose a strategic approach for hotel facilities to navigate similar challenges in the future. To achieve this, the study addresses the following research question:

- 1. What was the sensitivity of employment in the hotel industry due to the risk of a pandemic?
- 2. What strategies and mechanisms were employed by the hotel industry to sustain employment and mitigate the impacts of the realized pandemic risk?

The conducted research showed that the hotel industry went through the crisis caused by the COVID-19 pandemic moderately mildly. This was mainly due to the protective instruments proposed by state institutions and used by the tourism industry.

They thus allowed individual hotel facilities to limit the effects of the pandemic risk. Hotels were the most resilient.

#### LITERATURE REVIEW

The tourism sector stands as one of the largest and fastest-growing segments of the global economy (Kugiejko & Żyto, 2022). Through job creation, export revenues, investments, and infrastructure development, the tourism economy significantly contributes to the socio-economic development of the world and individual countries, both directly and indirectly. Key components of the tourism sector encompass the hotel industry, transportation, catering, and the travel agency sector (Alreahi et al., 2023). Regrettably, recent years have witnessed a severe setback in the development of tourism services across all continents, largely due to the COVID-19 pandemic caused by the SARS-CoV-2 virus (Alotaibi & Khan, 2022; Mastronardi et al., 2020). This unprecedented event led to a substantial decline in international tourism, resulting in the loss of millions of jobs within the sector. Hundreds of thousands of companies worldwide, primarily accommodation facilities, travel agencies, and other entities in the tourism market, faced bankruptcy (Niedziółka, 2021; Li et al., 2021).

The existing studies that pertain to the COVID-19 pandemic in the context of the hotel industry mainly deal with the impact of COVID-19 on hotels (Alotaibi & Khan, 2022; Filimonau et al., 2020; Hao et al., 2020; Jiang & Wen, 2020; Kim & Han, 2022). There are also endeavors, which are albeit limited, that contributed to examine consumer behavior (Shin & Kang, 2020; Han et al., 2020). Nevertheless, attempts have seldom been made to grades the sensitivity of employment in the hotel industry to the COVID-19 pandemic.

The pandemic imposed and accelerated changes in the enterprises (Alam, 2020; Pietrzyk & Szczepańska, 2022; Prochazka et al., 2020), in particular the shift to the remote working mode (Da et al., 2022; Kaushik & Guleria, 2020; Kramer & Kramer, 2020). The contemporary labour market operates within an ever-evolving environment marked

by constant change. These changes predominantly involve escalating employer requirements and swift transformations in the social, legal, political, and technological landscapes. The influence of globalization, technological advancements, and the internationalization of employees and the labour market significantly impacts not only economic and societal transformations (Pruchnik & Pruchnik, 2020) but, most importantly, the conditions governing the functioning of the labour market. Human capital assumes a pivotal role in this context (Nazarczuk & Cicha-Nazarczuk, 2014), delineating an individual's position within the aforementioned market.

The primary focus of analyses aimed at understanding the labour market is on the provisions and decisions of employees, constituting the labour supply, and the behavior of employers, representing the demand for labour. The interactions between them, embedded within the legal and institutional framework, establish what is known as the labour market order. The principles of this order encompass the obligations and regulations applicable to both employees and employers (Organiściak-Krzykowska et al., 2014). Occasionally, this order faces disruptions and encounters challenges that may jeopardize its continuity. One such challenge involved the restrictions introduced during the COVID-19 pandemic (Bogacka, 2021; Salih & Hussein, 2021). The onset of the COVID-19 pandemic in March 2020 and the measures taken to safeguard the health and lives of citizens led to an immediate curtailment of economic activities in numerous industries. The various restrictions, manifested in national or regional lockdowns, disrupted the volume and nature of demand for services and goods, thereby adversely affecting the overall functioning of the labour market (Radlińska, 2020). These disruptions altered existing trends and necessitated a range of adjustments.

The repercussions of restrictions and limitations in the economy had widespread effects on both employers and employees. The former found themselves engaged in an uneven struggle to sustain businesses that often represented their sole source of income and the foundation of their entire livelihoods. Virtually overnight, they confronted dwindling revenues, declining customer numbers, and the abandonment of planned investments. The balance between profits and losses hinged not only on the size of the enterprise but, more crucially, on the industry itself. The opening and closing of economies, coupled with various other restrictions, predominantly impacted the financial health of production enterprises, retail chains, and entire sectors associated with tourism, culture, entertainment, and gastronomy. Operating amidst the epidemic compelled many entrepreneurs to take decisive actions, as highlighted in studies such as those conducted by (Botha et al., 2021; Wawrzonek, 2020):

- reduction of working hours;
- salary reduction;
- job reduction or company closure;
- receiving benefits and bonuses.

The implementation of restrictions and the contraction of economic activity directly contributed to a reduction in employment and a surge in unemployment. Unlike previous crises, where these shifts occurred gradually and unfolded over time, the pandemic crisis led to an immediate job loss scenario. Overnight, the global economy witnessed the disappearance of millions of jobs. The decline in employment was not only linked to a drop in domestic demand but also resulted from a decrease in export volumes, stemming from disrupted supply chains. Consequently, many households faced challenges in maintaining their current financial liquidity (Soliwoda, 2020).

Administrative decisions made by governments worldwide to suspend economic activities, production, and consumption significantly disrupted the functioning of labour markets. The consequences include a reduction in employment, an increase in unemployment, professional inactivity, and interference in employer-employee relations. The economic crisis triggered by the pandemic brought about substantial changes in the modern labour market, introducing new trends and influencing the nature and methods of performing professional duties. Sudden events such as a pandemic often act as catalysts for significant changes, particularly

technological ones, which in turn force employees to adapt their qualifications and forms of professional activity to them. The pandemic turned out to be a crash course in, among others, digitalization, which made it possible to work in many professions. It has therefore accelerated the development of digital competences. Consequently, there has been a shift in the perception of work by both employees and employers. The latter now recognize the importance of seeking employees with competencies related to the use of new technologies, time management skills, self-discipline, and stress resistance. This shift emphasizes the significance not only of digital competencies but also of soft skills.

The alterations in the labour market's dynamics during the pandemic, coupled with job losses across various sectors, have heightened employees' inclination to undergo retraining for future endeavors. Abruptly, individuals employed in industries severely impacted by the pandemic found themselves compelled to seek new opportunities, gravitating towards professions more resilient to such economic shocks (Hensvik et al., 2021). This proclivity for industry change should be seen as an indication of society's increasing recognition of the importance of being a flexible employee capable of responding and adapting more successfully to evolving market conditions.

The measures implemented by governments worldwide to safeguard citizens' lives and health disrupted the normal functioning of the labour market. Prior to the pandemic, employee conditions were consistently improving, with unemployment reaching historically low levels, rising wages, and the primary challenge centered on enhancing labour supply. However, the limitations imposed on social and economic activities due to the COVID-19 pandemic triggered a profound global economic crisis, adversely impacting the labour market, particularly in the hotel industry. Successive restrictions led to a diminished demand for employees, a surge in unemployment, and a deceleration in recruitment processes. It is crucial to recognize that countries adopted diverse approaches in addressing the economic repercussions of the pandemic on employment. Various governments adopted different strategies to mitigate the impact of unemployment during the economic disruptions caused by the pandemic and provided benefits to individuals who lost their jobs, potentially influencing unemployment statistics. In contrast, others allocated funds for initiatives primarily focused on job preservation, resulting in a more modest uptick in the unemployment rate. Individuals who were displaced from jobs in the tourism sector due to closures sought employment in other sectors deemed less susceptible to health threats, such as the construction industry (Aigbedo, 2021; Alotaibi & Khan, 2022).

Unfortunately, employers face challenges in restoring the employment potential in tourism services (including the hotel industry) to the pre-2019 levels. Escalating costs may compel them to impose additional responsibilities on existing workforce members. Difficulties in recruiting new personnel could potentially hinder their ability to manage the anticipated influx of tourists in the upcoming seasons (Podhorodecka & Bak-Filipek, 2022).

### **MATERIALS AND METHODS**

The validation of the research questions and the attainment of the stated objective were accomplished through a critical examination of the existing literature, an analysis of secondary data, and an assessment of survey findings from primary research, incorporating selected statistical methods. In pursuit of the article's aim, reference was made to secondary data for the years 2012 and 2021, with a baseline set in 2019 – before the onset of the COVID-19 pandemic.

To assess the influence of the COVID-19 pandemic on employment-related decisions within hotel enterprises, a nationwide survey was conducted in November and December 2022. A combination of data acquisition methods, including PAPI (is a traditional method of conducting surveys using paper questionnaires that are completed by respondents), CATI (is a computer-assisted telephone interviewing technique), and CAWI (is a research technique using online surveys), was employed to reach hotel facilities. To ensure representativeness, a minimum sample size

of 344 entities was established, considering a 95% probability, a margin of error of 5%, and accounting for the population size. A non-random, purposive selection method was adopted, with efforts made to reflect the distribution of facilities across voivodeships and facility types. Questionnaires were presented to a total of 437 respondents, yielding 386 appropriately completed forms. The following statistical methods were used in the article. The chi-square test of independence was used in the article to check whether there is a statistically significant relationship between two qualitative variables. Then, the Cramér V coefficient (or Cramér fi) was used, which is one of the measures of dependence, determining the level of dependence between two nominal variables, at least one of which has more than two values. The article also uses the Mann-Whitney test. This test uses the rank of each observation to check whether the groups were drawn from the same population. The Mann-Whitney test is used to check whether two sampled populations are identical in location. Observations from both groups are combined and assigned a rank. The use of statistical methods allowed for examining the relationships and drawing conclusions from the study.

The study encompassed various types of facilities, including hotels, motels, guesthouses, campsites, youth hostels, travel lodges, and hostels. However, due to the limited representation of youth hostels, travel lodges, and shelters, the results were combined. The distribution of participating entities is illustrated in Fig. 1.

The majority of surveyed establishments were hotels, comprising approximately 77%, followed by guesthouses at around 12%, and campsites at approximately 5%. Collectively, these categories represented over 94% of all surveyed facilities.

In terms of employment, it is noteworthy that micro-enterprises (employing between 1 to 9 people) dominated among the surveyed facilities, constituting more than half of the respondents (see Fig. 2).

Approximately 41% of the facilities were categorized as small enterprises, employing between 10 to 49 people, while over 8% were identified as medium-sized

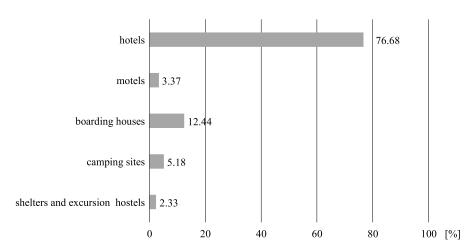


Fig. 1. Structure of the number of hotel facilities by type of facility

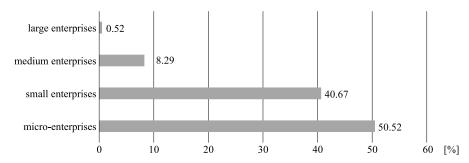


Fig. 2. Structure of hotel facilities in terms of size

enterprises. Notably, only two facilities employing over 250 people participated in the study, representing a mere 0.52% of the respondents.

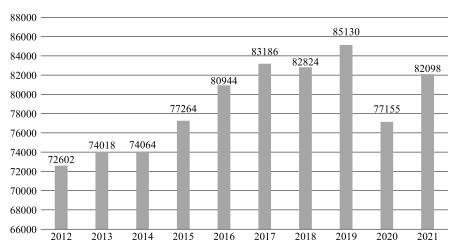
### **RESULTS**

## Employment in the hotel industry in Poland in 2012–2021

Research on employment levels in the hotel industry faced a notable limitation due to the accessibility of homogeneous statistical data. Although comprehensive data on the overall workforce in the Polish hotel industry is available in public statistics over an extended period, more granular information depicting employees in specific types of facilities (such as hotels and similar establishments, tourist accommodation facilities, camping sites and tent sites, and other forms of lodging) has only been published by Statis-

tics Poland since 2020. Furthermore, there is a lack of data pertaining to individuals employed in the accommodation sector across individual voivodeships, contributing to the challenge of conducting a detailed analysis at the regional level.

Another limitation arises from the integration of statistical data on accommodation with gastronomy in Polish public statistics, complicating the isolated analysis of the accommodation sector. In 2021, the workforce in the catering sector was nearly 2.5 times larger than that in the accommodation sector, reaching a total of 222,000 individuals. The substantial disparities between the two fields make it evident that their amalgamation in this research would introduce distortions to the findings. To ensure the accuracy of the research outcomes specific to the hotel industry, the decision was made to exclusively utilize data for the accommodation sector, leading to a more focused analysis.



**Fig. 3.** Number of employees in the hotel industry in Poland in 2012-2021 *Source*: own elaboration based on GUS (2013–2022).

In Poland, from 2012 to 2021, there was a rise in the workforce within the accommodation sector, escalating from 72.6 thousand individuals in 2012 to nearly 82.1 thousand in 2021. This signifies a growth of 13.1% over the span of a decade (see Fig. 3).

During the analyzed period, the overall trajectory in employment remained upward, with a minor decline in 2018 and a substantial shift during the onset of the COVID-19 pandemic in Poland, specifically in 2020, where a 9.4% decrease in the analyzed sector was noted compared to 2019. The COVID-19 pandemic significantly impacted employment in the hotel industry. However, it is noteworthy that there was a recovery in 2021, marked by another increase in the number of individuals employed in the accommodation sector. Thus, the adverse effects of the pandemic on employment in this sector were relatively short-lived.

It is noteworthy that women were predominant among those employed in the accommodation sector. In 2012, they constituted 64.8%, and in 2021, 65.8%. The proportion of men was 35.2% and 34.2%, respectively. Throughout the entire study period, the sex distribution of employees in the hotel industry remained similar. However, it is important to highlight that in the year of the COVID-19 pandemic outbreak in Poland, the number of employed women in accommodation decreased by 9.6% compared to 2019 (from 55,157 to 49,847), and for men, it decreased

by 8.9% (from 29,973 to 27,308). In summary, it can be concluded that the pandemic had a more pronounced impact on women working in hotel facilities.

The percentage of individuals employed in the accommodation sector relative to the total workforce in Poland was 0.51% in 2012 and increased to 0.55% in 2021, marking its highest level (see Table 1).

Throughout the examined period, fluctuations in this metric were marginal in consecutive years. However, in the year of the COVID-19 pandemic

**Table 1.** Employed persons in Poland and in the polish hotel industry

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Year	Total employed persons in Poland (thousand)	Employed persons in the hotel industry (thousand)	Share of employed persons in the hotel industry in the total number of employed persons in Poland (%)			
2012	14 172,0	72,6	0,51			
2013	14 244,3	74,0	0,52			
2014	14 563,4	74,1	0,51			
2015	14 829,8	77,3	0,52			
2016	15 293,3	81,0	0,53			
2017	15 710,8	83,2	0,53			
2018	15 949,7	82,8	0,52			
2019	16 120,6	85,1	0,53			
2020	16 021,4	77,2	0,48			
2021	15 002,6	82,1	0,55			

Source: own elaboration based on GUS (2013-2022).

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outbreak, it reached its lowest point at 0.48%. It is noteworthy that in the subsequent year, 2021, the percentage of employees in the analyzed sector relative to the total workforce increased to 0.55%. In summary, while the examined sector did not hold substantial significance in the Polish labour market, its proportion experienced a slight uptick.

Interesting insights into individuals working in the accommodation sector are also revealed through the analysis considering the form of ownership (see Table 2).

**Table 2.** Employed persons in hotel industry in Poland by ownership forms in 2012–2021

616111p 1611116 111 2012 2021								
	Pu	blic sec	Private sector					
Year	tota	1	tota	1	including owners, co-owners and helping members of their families			
	persons	%	persons	%	persons	%		
2012	12832	17,7	59770	82,3	9068	15,2		
2013	11358	15,3	62660	84,7	n.d.	n.d.		
2014	11395	15,4	62669	84,6	9226	14,7		
2015	10015	13,0	67249	87,0	11283	16,8		
2016	9789	12,1	71155	87,9	12821	18,0		
2017	9454	11,4	73732	88,6	12139	16,5		
2018	9618	11,6	73206	88,4	12284	16,8		
2019	9454	11,1	75676	88,9	11465	15,2		
2020	7771	10,1	69384	89,9	12019	17,3		
2021	7428	9,0	74670	91,0	13434	18,0		

n.d. - (no data) data unavailable

Source: own elaboration based on GUS (2013-2022).

In the decade under review, the public sector's share in this aspect declined from 17.7% in 2012 to 9.0% in 2021, while the private sector's share increased from 82.3% in the base year to 91.0% in the target year. These observed changes are linked to the transformation of the Polish economy initiated in 1989 and are characteristic of a free-market economy. Importantly, the period of the pandemic did not halt these ongoing transformations. During the COVID-19 pandemic in 2020–2021, the share of individuals employed in accommodation in the private sector also increased. Furthermore, it is noteworthy that among

those working in accommodation in the private sector, the proportion of individuals who are owners and co-owners, including family members assisting, rose. In 2012, this working group comprised 15.2%, increasing to 18.0% in 2021, indicating a growth of 2.8 percentage points. This shift can be attributed to increased business activity in the hotel industry related to accommodation services and the expansion of family entrepreneurship in this sector.

# Employment analysis in the hotel industry. Results of empirical research

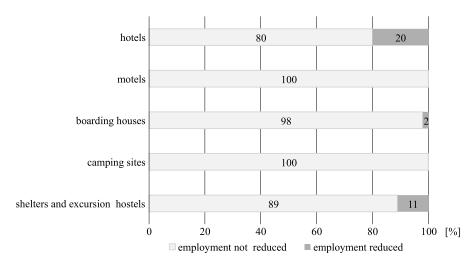
During the survey, respondents were queried with the question: Has the number of employees in your company been reduced as a result of the COVID-19 pandemic? Remarkably, a substantial 84.46% of the surveyed companies responded negatively to this question. This suggests that, in this regard, the hotel industry has managed to weather the challenges posed by the pandemic quite effectively.

The study sought to investigate whether the type of facility, its size (based on the number of employees), or legal form could have exerted an influence on employment reduction. It is crucial to note that these variables are qualitative in nature. Thus, to test the hypothesis regarding a significant relationship between company layoffs and the mentioned criteria, the Pearson's test of independence was employed at a significance level of 0.05. The distribution of responses concerning the impact of the type of facility on employment reduction during the pandemic is illustrated in Fig. 4.

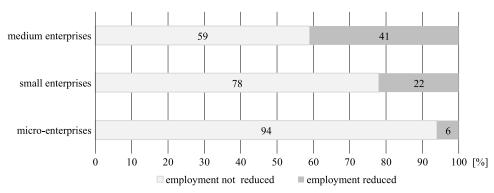
Among accommodation facilities, hotels, hostels, and travel lodges were primarily affected by layoffs. Employment reduction occurred to a very small extent (only in 2% of facilities) in guesthouses. No layoffs were reported in the motels and campsites surveyed.

The next level of analysis focused on the change in the level of employment depending on the size of the facility (see Fig. 5).

As shown in Fig. 5, medium-sized hotel companies performed the worst, with 41% of them being forced to lay off employees among establishments employing



**Fig. 4.** Employment reduction as a consequence of the COVID-19 pandemic by type of facility



**Fig. 5.** Employment reduction as a consequence of the COVID-19 pandemic due to the size of the enterprise

50 to 249 people. However, this problem affected only 6% of micro-enterprises.

The next stage of the study examined how facilities, depending on their legal form, coped with employee layoffs. The structure of the answers to this question is shown in Fig. 6.

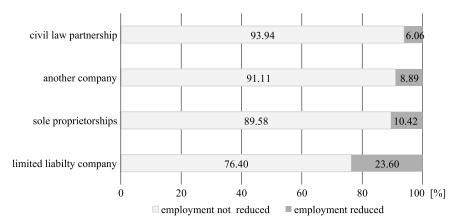
As shown in the data presented in Fig. 6, layoffs primarily affected limited liability companies followed by sole proprietorships (SP) and other types of companies (i.e., limited partnerships, professional partnerships, and general partnerships). Civil partnerships performed the best, with almost 94% of these entities not reducing employment.

The Pearson's test of independence confirmed, in all three cases, the existence of a statistically significant relationship between layoffs and the type of facility, company size, and legal form. Additionally, the Cramér's V coefficient was calculated to determine the strength of this relationship (Table 3).

All three Cramér's V coefficients suggest that there is a moderate relationship between employee layoffs and the adopted variables. The highest value of this coefficient was for "Employment size".

The Mann-Whitney test was employed to enhance the certainty of the obtained result, specifically in the case of employment. Since the variable "employment level" is ordinal, the utilization of this non-parametric test is both possible and recommended. The size of the company served as the dependent variable, with the response to the question about reducing employment

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**Fig. 6.** Employment reduction as a consequence of the COVID-19 pandemic due to the legal form of the enterprise

**Table 3.** Results of the Pearson's test of independence between exemptions and selected features characterizing accommodation facilities

Variable	N	Chi2	p	V-Cramera	
Object type	386	16,53(16,828)*	0,00238(0,00854)*	0,206	
Employment volume	384	33,202(36,657)*	0,00000(0,00000)*	0,294	
Legal form	385	16,716(17,67)*	0,00081(0,00711)*	0,208	

<sup>\*</sup>in brackets are the results for the cafeteria without any changes in the form of accumulation or omissions.

acting as the grouping variable. The results of the test are presented in Table 4.

The Mann-Whitney test confirmed a significant relationship between these variables. Therefore, it can finally be assumed that both the type of facility, the size of the company, and the legal form had an impact on layoffs as a consequence of the COVID-19 pandemic.

The considerations contained in the article have certain limitations. Firstly, the limitation of the study

is the territorial scope of the empirical research, which concerns only one country – Poland. In the future, it is worth expanding further research, including: to other EU countries. This would allow us to assess the extent to which employment in the hotel industry during the COVID-19 pandemic was influenced by the protective instruments used by individual countries. It would also be interesting to examine the impact of the pandemic on the functioning of other service sectors, not only the hotel industry.

Table 4. Results of the Mann-Whitney test – the company's employment against the background of layoffs due to COVID-19

Vhl.				Relative to	the varial	continuity of ble: question ificant with	3.		
Variable	Sum.rank no	Sum.rank yes	U	Z	р	Z with correction	р	N important. no	N important. yes
How many employees does your company have?	58637,50	15282,50	5662,500	-5,00353	0,000001	-5,59367	0,000000	325	59

### **DISCUSSION**

To summarize the results of both secondary and primary research, it should be stated that the analysis of the Statistics Poland reports showed a decrease in employment in the hotel industry in Poland in 2020–2021. This phenomenon may be explained by the fact that, as a result of the pandemic, the total number of hotel facilities decreased by 11.6% (from 11,251 facilities in 2019 to 9,942 in 2021) (GUS, 2021; 2023).

A survey of hotel facilities in Poland conducted in November-December 2022 revealed a relatively high resistance of these entities to the actual risk of a pandemic. In contrast to global trends, the vast majority (as many as 84.46%) of surveyed hotel enterprises in Poland did not reduce employment during the pandemic. This resilience may be attributed to the effectiveness of protective measures implemented by the Polish government, known as the "Anti-Crisis Shields". Throughout the pandemic, seven packages of such solutions were introduced in Poland (Shields 1.0 - 6.0 and Industry Shield). The Shields' scope was extensive and varied based on the size of the enterprise and the type of business activity. The most frequently utilized forms of assistance by entrepreneurs in the hotel industry included (Manczak & Gruszka, 2021):

- exemption from paying ZUS contributions for specific periods in 2020 and 2021, particularly covering contributions to social security, health insurance, the Labour Fund, the Solidarity Fund, the Guaranteed Employee Benefits Fund, and the Bridging Pension's Fund;
- co-financing a portion of the costs of employee remuneration and the corresponding social security contributions from the Guaranteed Employee Benefits Fund; salary subsidies for a duration of 3 months; in Shield 1.0, these subsidies applied exclusively to employees affected by economic downtime or reduced working hours. The extension of these provisions to employees not covered by economic downtime or reduced working time was introduced in Shield 4.0 and continued in the Industry Shield;

a low-interest loan from the Labour Fund was designed for micro-entrepreneurs to cover current business costs, with a maximum limit of PLN 5,000. This financial support, tailored for micro-entrepreneurs, would be completely forgiven if the business continued operations for at least three months from the date of loan disbursement. This initiative was implemented as part of Shield 1.0.

Anti-crisis shields were implemented to mitigate the financial repercussions stemming from COVID-19. As the pandemic situation unfolded, the government continuously introduced new measures, adjusted existing programs, and tailored its anti-crisis policy to the evolving needs. A specific initiative aimed at supporting the hotel industry was the introduction of the tourist voucher – a digital document providing families utilizing hotel services in Poland with a PLN 500 discount for each child. These measures successfully heightened the interest of Polish tourists in domestic hotel offerings, surpassing levels seen in previous years.

The government program aimed to safeguard jobs and sustain essential financial liquidity for companies meeting the specified criteria to receive financial assistance. Despite these efforts, the program could not shield the entire hotel industry from the repercussions of the pandemic. Some hotel establishments ceased operations, leading to employees in these facilities having to seek new employment opportunities.

### **CONCLUSIONS**

The COVID-19 pandemic has significantly affected employment in the hotel industry, necessitating a profound adaptation to a new reality. Both employees and employers grappled with challenges stemming from travel restrictions, shifts in guest behavior, and the implementation of safety measures. These factors had a notable impact on staffing dynamics and team structures within hotels. Owing to a decrease in guest numbers, operational constraints, and revenue loss, certain establishments were compelled to declare bankruptcy or carry out layoffs, affecting positions such as receptionists and cleaning staff. Nevertheless,

the scale of this phenomenon in Poland was relatively limited and of short duration.

In response to the instability in the labour market, certain hotels implemented more flexible employment arrangements, such as temporary contracts, to better align with changing needs. Notably, in departments like marketing, employees were transitioned to remote work to mitigate the risk of virus transmission and reduce operational costs. The anti-crisis shields proved to be significantly beneficial for entrepreneurs. Government-level initiatives, coupled with adaptive measures taken by surveyed enterprises, yielded positive outcomes. These results underscore the adaptability of hotel enterprises in Poland to fluctuating and even turbulent economic conditions. This adaptability is crucial given the subsequent external factors that have come to influence the functioning of Polish enterprises post--pandemic. These factors include events like the war in Ukraine, inflation, escalating energy costs, external migrations, the associated influx of foreigners, and prevailing political conditions.

There is a suggestion that, in the post-pandemic era, hotel companies should shift from a competitive to a cooperative paradigm among individual facilities. This transformation is anticipated to enhance entrepreneurs' social capital, enabling them to collaboratively plan and recover more effectively from potential external disruptions, including future pandemics or other natural disasters. The adaptation of hotels to epidemic threats or other crises necessitates the formulation of suitable strategies. These strategies aim to ensure the safety of both guests and employees and minimize the impact of crises on the overall operations of the hotel. Crucial for the survival and success of contemporary hotel enterprises during future crises are several key factors: innovation (e.g., self-service kiosks, hotel applications, and online reservations to limit direct contact), robust IT systems safeguarding hotels and guests against cybercrime, and adaptability with the capability to swiftly adjust to evolving socio-economic realities. Insights gained from observing the hotel industry's responses during the pandemic and the lessons learned can be instrumental in modeling protective and supportive actions for the future, applicable at both governmental and industry levels.

Author contributions: The authors have approved the final version of the article. The authors have contributed to this work as follows: K.D., A.M., A.T.-K., A.B. developed the concept and designed the study, K.D., A.M., A.T.-K., A.B. collected the data, K.D., A.M., A.T.-K., A.B. analyzed and interpreted the data, K.D., A.M., A.T.-K., A.B. drafted the article, K.D., A.M., A.T.-K., A.B. revised the article critically for important intellectual content.

**Funding:** The project is financed within the framework of the program of the Minister of Science and Higher Education under the name "Regional Excellence Initiative" in the years 2019–2022; project number 001/RID/2018/19; the amount of financing PLN 10,684,000.00.

### **REFERENCES**

Aigbedo, H. (2021). Impact of COVID-19 on the hospitality industry: A supply chain resilience perspective. *International Journal of Hospitality Management*, 98, Article 103012. https://doi.org/10.1016/J. IJHM.2021.103012

Alam, M. (2020). Organisational processes and COVID-19 pandemic: implications for job design. *Journal of Accounting & Organizational Change*, 16(4), 599–606. https://doi.org/10.1108/JAOC-08-2020-0121

Alotaibi, E., & Khan, A. (2022). Impact of Covid-19 on the Hospitality Industry and Responding to Future Pandemic through Technological Innovation. *Procedia Computer Science*, 204, 844–853. https://doi. org/10.1016/J.PROCS.2022.08.102

Alreahi, M., Bujdosó, Z., Kabil, M., Akaak, A., Benkó, K. F., Setioningtyas, W. P., Dávid, L. D. (2023). Green Human Resources Management in the Hotel Industry: A Systematic Review. *Sustainability*, *15*(1), 99. https://doi.org/10.3390/su15010099

Bogacka, E. (2021). Safety perceptions at the beginning of the COVID-19 pandemic in Poland. *Acta Scientiarum Polonorum*. *Administratio Locorum*, 20(3), Article 3. https://doi.org/10.31648/aspal.6567

Botha, F., de New, J. P., de New, S. C., Ribar, D. C., & Salamanca, N. (2021). Implications of COVID-19

- labour market shocks for inequality in financial wellbeing. *Journal of Population Economics*, 34(2), 655–689. https://doi.org/10.1007/s00148-020-00821-2
- Chen, X., Hao, Y., Duan, Y., Zhang, Q., & Hu, X. (2023). Gender and Culture Differences in Consumers' Travel Behavior during the COVID-19 Pandemic. *Sustainability*, *15*(2), Article 2. https://doi.org/10.3390/su15021186.
- Da, S., Fladmark, S. F., Wara, I., Christensen, M., & Innstrand, S. T. (2022). To Change or Not to Change: A Study of Workplace Change during the COVID-19 Pandemic. *International Journal* of Environmental Research and Public Health, 19(4), Article 1982. https://doi.org/10.3390/ijerph19041982
- Filimonau, V., Derqui, B., & Matute, J. (2020). The COVID-19 pandemic and organisational commitment of senior hotel managers. *International Journal of Hospitality Management*, 91, Article 102659. https://doi.org/10.1016/j.ijhm.2020.102659
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20. https://doi.org/10.1080/09669582.2020.1758708
- GUS. (2013). Employment in the national economy in 2012.
- GUS. (2014). Employment in the national economy in 2013.
- GUS. (2015). Employment in the national economy in 2014.
- GUS. (2016). *Employment in the national economy in 2015*. GUS. (2017). *Employment in the national economy in 2016*.
- GUS. (2018). *Employment in the national economy in 2017.*
- GUS. (2020). Employment in the national economy in 2019.
- GUS. (2022). Employment in the national economy in 2021.
- GUS. (2021). *Tourism in 2020*. https://stat.gov.pl/obszary-tematyczne/kultura-turystyka-sport/turystyka/turystyka-w-2020-roku,1,18.html
- GUS. (2023). *Tourism in 2022*. https://stat.gov.pl/obszarytematyczne/kultura-turystyka-sport/turystyka/turystyka-w-2022-roku,1,20.html
- Han, H., Lee, S., Kim, J. J., & Ryu, H. B. (2020). Coronavirus Disease (COVID-19), Traveler Behaviors, and International Tourism Businesses: Impact of the Corporate Social Responsibility (CSR), Knowledge, Psychological Distress, Attitude, and Ascribed Responsibility. Sustainability 2020, 12(20), Article 8639. https://doi.org/10.3390/SU12208639
- Hao, F., Xiao, Q., & Chon, K. (2020). COVID-19 and China's Hotel Industry: Impacts, a Disaster Management Framework, and Post-Pandemic Agenda. *International Journal of Hospitality Management*, 90, Article 102636. https://doi.org/10.1016/J.IJHM.2020.102636

- Hensvik, L., Le Barbanchon, T., & Rathelot, R. (2021). Job search during the COVID-19 crisis. *Journal of Public Economics*, 194, Article 104349. https://doi.org/10.1016/j.jpubeco.2020.104349
- Hotel market in Poland REPORT 2022. (2022, September 5). https://issuu.com/brogmarketing/docs/rynek\_hotelarski\_w\_polsce\_-\_raport\_2022
- Jiang, Y., & Wen, J. (2020). Effects of COVID-19 on hotel marketing and management: a perspective article. *International Journal of Contemporary Hospitality Management*, 32(8), 2563–2573. https://doi.org/10.1108/IJCHM-03-2020-0237/FULL/XML
- Kaushik, M., & Guleria, N. (2020). The impact of pandemic COVID-19 in workplace. *European Journal of Business and Management*, 12(15), 1–10. https://doi.org/10.7176/EJBM/12-15-02
- Kim, J. J., & Han, H. (2022). Saving the hotel industry: Strategic response to the COVID-19 pandemic, hotel selection analysis, and customer retention. *International Journal of Hospitality Management*, 102, Article 103163. https://doi.org/10.1016/J. IJHM.2022.103163.
- Kim, Y. S., Shin, D. J., & Kim, B. K. (2023). Effect of COVID-19-Induced Changes on Job Insecurity, Presenteeism, and Turnover Intention in the Workplace An Investigation of Generalized Anxiety Disorder among Hotel Employees Using the GAD-7 Scale. *Sustainability*, 15(6), Article 6. https://doi.org/10.3390/su15065377
- Kramer, A., & Kramer, K. Z. (2020). The potential impact of the Covid-19 pandemic on occupational status, work from home, and occupational mobility. *Journal of Vocational Behavior*, 119, Article 103442. https://doi.org/10.1016/j.jvb.2020.103442
- Kugiejko, M., & Żyto, A. (2022). Illegal domestic tourism of Poles during the COVID-19 pandemic introduction to the research. *Acta Scientiarum Polonorum*. *Administratio Locorum*, *21*(1), 125–138. https://doi.org/10.31648/aspal.7063
- Li, J., Nguyen, T. H. H., & Coca-Stefaniak, J. A. (2021). Coronavirus impacts on post-pandemic planned travel behaviours. *Annals of Tourism Research*, 86, Article 102964. https://doi.org/10.1016/J. ANNALS.2020.102964
- Manczak, I., & Gruszka, I. (2021). Counteracting the effects of the fight against COVID-19 in tourism Analysis of the semantic field. Studies of the Industrial Geography Commission of the Polish

- *Geographical Society*, *35*, 164–176. https://doi. org/10.24917/20801653.353.10
- Mastronardi, L., Cavallo, A., & Romagnoli, L. (2020). Diversified Farms Facing the Covid-19 Pandemic: First Signals from Italian Case Studies. *Sustainability*, *12*(14), Article 14. https://doi.org/10.3390/su12145709
- Nazarczuk, J. M., & Cicha-Nazarczuk, M. (2014). Diversity of human capital in Polish regions. Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług, 114, 189–200.
- Niedziółka, A. (2021). Management dilemmas in running agritourism farms in the post-pandemic period. In I. Budzik-Nowodzińska, & P. Nowodziński (Eds.), Business management in times of new economic reality. Wydawnictwo Politechniki Częstochowskiej.
- Organiściak-Krzykowska, A., Walkowiak, R., & Nyklewicz, K. (2014). *Innovative forms of work*. Wydawnictwo EXPOL, P. Rybiński, J. Dąbek, sp.j. https://docplayer.pl/20179993-Innowacyjne-formy-pracy-anna-organisciak-krzykowska-ryszard-walkowiak-krzysztof-nyklewicz.html
- Pietrzyk, K., & Szczepańska, A. (2022). Work during the COVID-19 pandemic – feelings of the investment and construction sector employees in Poland. Semantic Scholar. Acta Scientiarum Polonorum. Administratio Locorum, 21(4), 561–572. https://doi.org/10.31648/ ASPAL.8102
- Podhorodecka, K., & Bąk-Filipek, E. (2022). Changes in the labour market in the tourism sector in Poland in the era of the COVID-19 pandemic. *Rynek Pracy*, *182*(3), 6–18.
- Prochazka, J., Scheel, T., Pirozek, P., Kratochvil, T., Civilotti, C., Bollo, M., & Maran, D. A. (2020). Data on work-related consequences of COVID-19 pandemic for employees across Europe. *Data in Brief*, *32*, Article 106174. https://doi.org/10.1016/j.dib.2020.106174.
- Pruchnik, M., & Pruchnik, K. (2020). The state of knowledge about telework as one of the factors

- determining its development and popularization. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 64(11), 77–94. https://doi.org/10.15611/pn.2020.11.06
- Radlińska, K. M. (2020). COVID-19 pandemic implications for the Polish labour market. Zeszyty Naukowe Wydziału Nauk Ekonomicznych, 1(24), Article 24.
- Salih, N. M. M., & Hussein, S. H. (2021). Cities after pandemic: Enabling social distancing as a new design standard to achieve urban immunity. *Acta Scientiarum Polonorum*. *Administratio Locorum*, 20(4), 345–360. https://doi.org/10.31648/aspal.6825
- Sharma, A., & Nicolau, J. L. (2020). An open market valuation of the effects of COVID-19 on the travel and tourism industry. *Annals of Tourism Research*, 83, Article 102990. https://doi.org/10.1016/j.annals.2020.102990
- Shin, H., & Kang, J. (2020). Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness. *International Journal of Hospitality Management*, *91*, Article 102664. https://doi.org/10.1016/J.IJHM.2020.102664
- Soliwoda, M. (2020). Resilience from an economic and financial perspective. Selected problems. Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej Państwowy Instytut Badawczy. http://dspace.uni.lodz.pl:8080/xmlui/handle/11089/34467
- Tokarz-Kocik, A., Bera, A., Drela, K., & Malkowska, A. (2023). The Impact of the COVID-19 Pandemic on the Labour Market in the Hotel Industry: Selected Conditions in Poland. *Sustainability*, *15*(6), Article 6. https://doi.org/10.3390/su15064886
- Wawrzonek, A. (2020). The emerging labour market realities and challenges of the post-pandemic reality. *Studia Edukacyjne*, 58, Article 58. https://doi.org/10.14746/se.2020.59.7