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THE COVID-19 PANDEMIC AND ADAPTATIONS IN CREATIVE AND CULTURAL INDUSTRIES: A CASE OF TWO CROATIAN COUNTIES

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ABSTRACT

This paper is dedicated to examining the impact of the COVID-19 pandemic on the creative and cultural industries (CCI) in two tourist counties in Croatia – the Istria County and Šibenik-Knin County. This research focuses on the impact, resilience and adaptation of the CCI sector to the effects of measures introduced to combat the spread of the COVID-19 pandemic. The analysis is conducted using an online survey of business entities operating in the CCI sector, with the fulfilled surveys covering 12.1 percent of the total number of firms. The analysis showed that the COVID-19 pandemic has had a short-term negative effect on most of the surveyed entities in two analysed counties, with a greater negative effect in Istria County. Still, the pandemic has not had a significant negative impact on employment. Moreover, the respondents were optimistic about the long-term implications of the pandemic on their business, with respondents from Istria County expressing greater optimism than those from Šibenik-Knin County. The pandemic has encouraged respondents to adapt to new circumstances and seek novel solutions to achieve new revenue streams.

1. INTRODUCTION

Creative and cultural industries (CCI) are one of the sectors that the COVID-19 pandemic has heavily hit. Restrictive COVID-19 measures, such as stay-at-home recommendations, closures of entertainment venues and mass gathering cancellations and restrictions, severely negatively affected CCI. In Croatia, the situation was additionally bleak due to the reliance of CCI on tourism, especially in the Adriatic region. Hence, restrictions for travelling and hotels and other forms of accommodation put additional pressure on CCI in Croatia. For that reason, the strong interconnectedness between CCI and the tourist sector in Croatia and the consequent severe negative effect of the COVID-19 pandemic on CCI makes Croatia an interesting case for research. Still, it has to be noted that even before the COVID-19 crisis, part of the CCI sector in Croatia was under harsh conditions for years. More precisely, as a consequence of the 2008 global recession and as a part of antirecession measures, the coefficient for the payment of pension contributions to independent artists was significantly reduced. Even though the economy recovered, the government did not return the coefficient to its previous level until 2023. Hence, the COVID-19 crisis just revealed long-standing harsh conditions in CCI in Croatia.

The main objective of the paper is to analyse the perceptions of the COVID-19 pandemic in CCI in two tourist counties in Croatia – Istria and Šibenik-Knin by conducting an online survey of business entities operating in the CCI sector. The research also focuses on the resilience and adaptation of the CCI sector in Istria County and Šibenik-Knin County to the effects of measures introduced to combat the spread of the COVID-19 pandemic. It provides insight into the impact of

COVID-19 restrictive measures and government aid measures on the functioning of CCI in Croatia during and in the aftermath of the COVID-19 pandemic and provides directions for any future disruptions that may occur in the CCI sector. Our research is unique in analysing differences in perceptions in two regionally relatively distant and economically different counties. Istria County is the most western coastal county in Croatia, while Šibenik-Knin County is located in the southern part of Croatia, also on the Adriatic coast. While Istria County is one of the most developed counties in the country, Šibenik-Knin County is a less developed coastal county (measured by GDP per capita). Still, both counties heavily rely on tourist activities, implying that COVID-19 measures had a strong negative impact on their economy.

Hence, research questions that we focus on in this article are: what perceptions and opinions do survey participants in CCIs have about the COVID-19 pandemic in two tourist counties in Croatia? How resilient are business entities in CCIs? Which measures did they use to adapt to harsh COVID-19 circumstances? To what extent did they use government aid measures introduced to combat the negative developments?

CCI sector is relatively important for Croatia. A comprehensive mapping of Croatia's creative and cultural industries conducted by Rašić Bakarić, Bačić, and Božić (2015) revealed that CCIs contributed approximately 2.3% to Croatia's GDP in 2012 and accounted for 3.0% of total employment. Notably, the business segment of CCIs represented 3.5% of the gross value added within the nation's business sector. The situation was similar in 2021, when the CCI sector contributed to the total gross value added of the country by 3.4% (Broz and Rašić, 2025). Comparison with other countries reveals that cultural sector in Croatia has the highest relative turnover, but at the same time it does not stand out in local government expenditures on cultural services (Table 1), which could be related to the fact that large part of cultural activities in Croatia is financed from the state budget. On the other hand, share of the cultural employment in total employment is the lowest in Croatia.

Table 1. Comparative data on CCIs

	Croatia	Slovenia	Italy	Czechia	Hungary
Cultural employment (thousand persons, 2024)	57.9	43.0	842.8	204.8	186.1
Share of cultural employment in total employment (in %, 2024)	3.5	4.4	3.7	4.1	4.1
Local government expenditures on cultural services (as % of total expenditures, 2023)	3.7	4.6	1.3	3.4	5.2
Cultural sectors turnover (as % of total turnover, 2020)	1.88	1.29	1.59	1.12	1.29

Source: Eurostat.

The paper is organised as follows. The next section provides a brief literature review of the CCIs, with special focus on Croatia. The third section presents the survey results on the impact of the COVID-19 pandemic on the CCI sector in Istria County and Šibenik-Knin County, as well as the CCI sector resilience and adaptation. The last section offers conclusions.

2. SHORT OVERVIEW OF THE CULTURAL AND CREATIVE INDUSTRIES AND RELATED RESEARCH

The history of the CCIs is grounded in the notion of the “cultural industry”. The term “cultural industry” was first used in the early 1940s by Theodor W. Adorno and Max Horkheimer, members of the influential Frankfurt School,¹ in the chapter “The Culture Industry: Enlightenment as Mass Deception” from the book *Dialectic of Enlightenment* (Horkheimer and Adorno, [1947], 2002). Horkheimer and Adorno offered a critique of mass culture, commodification and standardisation from a radical point of view. In their view, to treat the cultural value as monetary means to destroy its critical potential and its authenticity. They were opposed to the commercialisation of the cultural industry. The main focus of their critique was the negative impact of new developing technologies on culture. In Horkheimer and Adorno’s view, culture had almost entirely lost its capacity to act as a utopian critique, given that it had become commodified. Horkheimer and Adorno used the singular term “the culture industry” as it suggested a “unified field” where all the different forms of cultural production that coexist in modern life are assumed to obey the same logic (Hesmondhalgh 2002).

However, by the late 1960s, it became apparent that culture, society and business were becoming more intertwined than ever before due to the rapid development of film, television and record companies, and these forms of entertainment took on an ever-greater social and political significance. The French sociologists of “cultural industries” were the original opponents of the Adornian critique on the perceived negative influence of the industrialisation of culture (Miège, 1979; Girard, 1982; Miège, 1987). By replacing the singular form “the culture industry” with the plural form “the cultural industries”, they shifted the focus from outright critique to critical engagement with the empirical challenges of commercial culture (Hesmondhalgh, 2002). During the second half of the twentieth century, the cultural industries began to grow rapidly. That growth was primarily driven by the development of new technologies, links between the new medium of television and new discourses of consumerism, the increasing importance of “cultural hardware” (hi-fi, TV sets, and later VCRs and personal computers) for the consumer goods industry, rising prosperity

1 The Frankfurt School comprised a group of researchers associated with the Institute for Social Research in Frankfurt am Main, Germany, who applied Marxism to a radical interdisciplinary social theory. Institute for Social Research (Institut für Sozialforschung) was founded by Carl Grünberg in 1923 as an adjunct of the University of Frankfurt. This institute was the first Marxist-oriented research centre affiliated with a major German university.

in the global North, increasing leisure time, rising levels of literacy, and so on. In the early 1980s, it was becoming increasingly difficult for cultural policymakers to ignore the significance of cultural industries.

The term “creative industries” was originally coined in 1994 in Australia when the government released their new cultural policy titled *Creative Nation*. However, wider exposure of the term among policymakers was gained when the British Department of Culture, Media and Sports (DCMS) published in 1998 and 2001 the first UK Creative Industries Mapping Documents, which contained one of the most widely accepted definitions of the creative industries. They are defined as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DCMS, 1998). However, there are still numerous definitions of creative industries and the discussion about the use of interlinked terms, such as cultural industries, creative industries, creative and cultural industries, cultural and creative economy, and creative sector. Institutions like UNCTAD (2008) and the European Parliament (2016) provide different definitions.

An important feature of creative industries is their concentration in certain locations, most often in large cities (Lange et al., 2008; Boix et al., 2013; Stam et al., 2016). Despite much empirical research on the topic of spatial patterns in CCIs, current literature does not provide an unequivocal answer to the reasons for the concentration of creative industries in urban areas. Key initiators for positioning creative industries in large cities and their surroundings are usually cited as localisation economies and urbanisation economies, followed by cultural heritage, easier access to a creative labour force and interconnectedness of CCI with tourism (Lazzeretti et al., 2008; Cooke and De Propris, 2011). Localisation economies occur due to the concentration of certain business activities or a larger number of similar companies in a certain area (Marshall, 1890/2009). The basic location factors influencing the decision of business entities in creative industries to locate in urban areas are attributed to certain advantages provided by the labour market, the proximity of local suppliers specialised in other sectors of creative chains, the proximity of clients and tourists, and also potentially important benefits from the local spilling effect of know-how. The association of companies in creative industries into clusters can also be encouraged by urbanisation economies, especially when companies see advantages in the large capacity of a local market. Urbanisation economies are primarily linked to the concentration of an industry (Ohlin, 1933), an increase in the total economic size of a city in terms of population, income, output and affluence, efficiency and also flexibility and quality labour market in the city (Hoover, 1973), including production diversification (Jacobs, 1961 and 1969) in addition to the density of agents (Hoover and Vernon, 1959; Ciccone and Hall, 1996) and tourists (Rogerson, 2007). Furthermore, some authors also identify key initiators of the localisation of CCIs as the size of a city and its administrative status (capital of a country or regional centre). Further, since tourism activities are increasingly located in (smaller and larger) cities, the positioning of creative industries in cities and their

surroundings provides CCI with additional sources of revenue (OECD, 2014). But it is not only concentration that matters. Grossi, Sacco and Blessi (2023) find that cultural and leisure activities form the backbone of the urban socio-economic structure, linking to tourism, public amenities, and innovation hubs. Creative cities promote economic dynamism, but at the same time they also face issues like income inequality and gentrification as well as balancing between preserving heritage and fostering new creative industries, implying that effective policies should balance economic competitiveness with heritage, inclusivity and affordability (Hall, 2000; Scott, 2006).

An important characteristic of CCI is their vulnerability to different crises. These industries are part of the (luxury) service sector, which is first hit hard when the troubles in the economy and society begin. An example is the COVID-19 pandemic, when the CCI sector was first to close and last to (completely) open (AFA, 2020). It is also the sector that, at the beginning of the pandemic, had the highest percentage of temporarily closed businesses (Small Business Pulse Survey, 2020). The CCI sector is also known for precarious working conditions (de Peuter, 2011), especially since the global financial crisis of 2008 (Donald et al., 2013), showing its vulnerability in the COVID-19 pandemic. However, the COVID-19 pandemic exposed these already existing weaknesses (OECD, 2020).

There are several reasons why CCIs are vulnerable to crises. CCI belong to the innovative component of longer and more complex supply chains, meaning they tend to sell their products or services to other creative or non-creative sectors, including individual consumers (de Propriis, 2013). Hence, when there is a recession and lower demand for (non-essential) products and services, this dependence directly influences CCI. Furthermore, since most business entities in CCI are micro or small firms that are more vulnerable to recessions and have greater difficulty accessing finance, a sudden (and prolonged) lockdown and, consequently, loss of revenue have a harsh effect on them (de Propriis, 2013, OECD, 2020).

Resilience represents the capacity to recover and adapt to vulnerability risks. In CCIs it refers to the ability of these industries to adapt, sustain, and recover in response to external shocks, economic crises, technological changes, and evolving cultural trends. It encompasses the capacity of creative ecosystems – such as artists, cultural institutions, creative businesses, and policy frameworks – to withstand disruptions while maintaining cultural and economic vitality (Comunian and England, 2020; Pratt, 2015). Hence, not everything is so bleak with the COVID-19 pandemic and CCI. It seems that the creativity of the CCI sector has surged, and many participants have realised that they need to change their business model to survive. Accordingly, Fautino (2022) argues that COVID-19 was acting as an accelerator of innovation in several areas, from production to delivery and monetisation. Also, CCI need to rely more on technology and complement the CCI business strategy. An example is that some museums have started to offer online exhibitions (Agostino et al., 2020), and some musicians stream their concerts via online platforms (Gu et al., 2020). Still, it seems that the resilience of the CCIs in the COVID-19 pandemic was conditioned by

the creation of new multi-level policies for crisis management (Marian-Potra et al., 2022).

Noticeable interest in CCI in Croatia started relatively recently, and different aspects of CCI are now being explored. For example, Pfeifer et al. (2017) explored the business model of creative industries, Stojčić et al. (2016) analysed the impact of creative industries on regional economic growth, Pfeifer et al. (2016) analysed facets of growth among SMEs in creative industries, Borić Cvenić and Mesić (2019) analysed the role of CCIs in urban branding strategies, while Primorac et al. (2020) analysed labour problems in CCI. There are also studies engaged in specific topics concerning CCI. Barada and Primorac (2018) analysed gender differences in the labour market in creative industries, Stanić (2017) analysed the financial aspects of CCI, Primorac (2021) analysed project work in CCI, Borić Cvenić, Mesić and Poljak (2022) explored the potential that neglected industrial heritage offers for the development of CCIs, while Živaljić and Trstenjak (2022) studied the application of behavioural economics strategies in the creative industry. As mentioned before, there is a strong link between CCI and tourism in Croatia, hence there are several studies covering that aspect. Jelinčić and Žuvela (2012) discussed creative tourism, Stipanović et al. (2019) researched the role of CCI in the creation of innovative urban tourism, Mandić et al. (2017) analysed the impact of film, as part of creative industry, on tourism development, while Krajinović (2019) examined the potential of creative tourism in a specific destination.

Despite recent growing interest in CCI in Croatia, the impact of the COVID-19 pandemic on CCI has not been researched in depth. Still, there is some interesting research mostly related to analysing the (digital) response of CCI to the COVID-19 pandemic. Slijepčević and Kordej-De Villa (2022) analysed the consumption of cultural content on the Croatian islands and revealed that the consumption of online cultural and creative content increased during the COVID-19 lockdown. Fištrek and Matic Roćenović (2022) analysed the influence of digitalisation and media on the organising of museum events and concluded that digital technology and media facilitated the organising of such events, but higher-level digital solutions are necessary to meet visitor expectations. Krolo et al. (2020) are also interested in the COVID-19 pandemic, but also in Zagreb earthquake that happened in the same year as the start of the pandemic. They analysed contemporary culture and the arts sector, confirming their initial assumptions that this sector was under threat but that it is also capable of quickly and adequately (digitally) responding to the crisis. Londero Šimleša (2021) focused only on electronic media, more precisely on radio stations. She found that radio station businesses had been affected by the COVID-19 pandemic due to decreased advertisement, stifling their profitability. Nonetheless, radio station businesses managed to adapt using hybrid advertising, as well as advertising on social networks and digital platforms.

3. INSIGHTS INTO THE SURVEY ON THE IMPACT OF COVID-19 ON CREATIVE AND CULTURAL INDUSTRIES IN ISTRIA COUNTY AND ŠIBENIK-KNIN COUNTY

The COVID-19 pandemic has significantly changed social and economic life, leading to numerous difficulties in everyday life and business. Since CCI are an important part of the Croatian economy, this part of the research focuses on more deeply examining the impact of the COVID-19 pandemic on the CCI sector in Istria County and Šibenik-Knin County. The analysis is directed to the perceptions of impact, resilience and adaptation of the business entities operating in the CCI sector² in Istria County and Šibenik-Knin County to the consequences of measures introduced to combat the spread of the COVID-19 pandemic.

3.1. Methodology and basic information about the sample

The research conducted in this paper is part of the research project under the grant TvojGrant@EIZ, which focused on the assessment of the economic contribution of the CCI sector in Istria County and Šibenik-Knin County to the Croatian economy before and during the COVID-19 crisis. In this part of the research, we were interested in perceptions of the impact of the COVID-19 pandemic in CCIs. For that reason, we conducted an online survey on CCI business entities in Istria County and Šibenik-Knin County. The term CCI includes both creative and cultural sectors, enabling us to have more diverse and comprehensive sample of business entities. Still, we excluded business entities that are primarily in IT sector, even though this is one of 12 identified CCI sectors in Croatia, due to the fact that they are primarily dealing with sales of computers and computer equipment and not in software development. The survey was conducted from 13 October to 19 December 2022. We had a database containing contacts of 585 CCI entities that are obliged to report their financial records to the Financial Agency, 393 from Istria and 192 from Šibenik-Knin County. In total, 71 (anonymous) surveys were collected, with 37 from Istria County and 34 from Šibenik-Knin County, implying that 12.1 percent of the total population completed the survey. We have to acknowledge that the response rate is relatively low, which limits generalisability. Also, even though non-response bias could be present, leading to incorrect conclusions, we believe that firms that did not fulfil the survey do not differ significantly from those which did fulfil it.

2 According to the Mapping of Croatian Creative and Cultural Industries (Rašić Bakarić et al., 2015), the CCIs in Croatia comprise 12 sectors: Advertising and Marketing; Publishing; IT, Software, Games and New Media; Electronic Media; Museums, Galleries and Libraries; Music and Performing Arts; Architecture; Design; Visual Arts; Film; Traditional Arts and Crafts, and Photography. The cultural and creative sector in Croatia comprises artists, the public sector (public institutions providing cultural services), the private sector (cultural and creative enterprises) and the non-profit sector (art associations, associations of musicians, cultural-artistic societies).

When processing the survey, the number of persons who answered a particular question was taken into account, regardless of whether they filled out the survey questionnaire in its entirety. Although not a representative sample, the answers to the survey represent an important contribution to understanding the impact of the COVID-19 pandemic crisis on the activities of the CCI sector in Istria County and Šibenik-Knin County, since data covered in this survey are not available through official statistics. Also, deep insight into attitudes in CCIs regarding COVID-19 turbulent times is valuable for developing future crisis policy responses. Descriptive statistics as well as t-tests are used to analyse the results of the survey.

Even though we developed independently survey questions, inspiration for some of the questions came from the existing research. This includes general questions about the impact of COVID-19 on the Croatian economy inspired by CROMA, HUP and Best Advisory (2020) and questions related to the same topic but focused on CCIs in Croatia (from Krolo et al., 2020). Further, we included questions about resilience for which inspiration came from Kantur & Iseri-Say (2015). Since our focus was COVID-19 pandemic, most of the questions are naturally related to this period. Still, knowledge about local cultural environment as well as government measures enabled us to have tailor-made questions for CCIs in Istria and Šibenik-Knin County.

Before addressing the impact of COVID-19, basic information about the questionnaire and sample have been addressed. Socio-demographic questions about the business entity included information on headquarters, subsector(s) of CCI, legal organisational form and starting year of conducting business. Also, there are questions about the respondents, such as gender, age and education. Besides socio-demographic questions, the questionnaire included sets of questions related to assessing the impact of the COVID-19 pandemic on the respondent's business, examining to what extent respondents have used the mitigation measures to support the creative and cultural sector during the COVID-19 pandemic and examining the way in which respondents have adapted to the circumstances created due to the COVID-19 pandemic.³

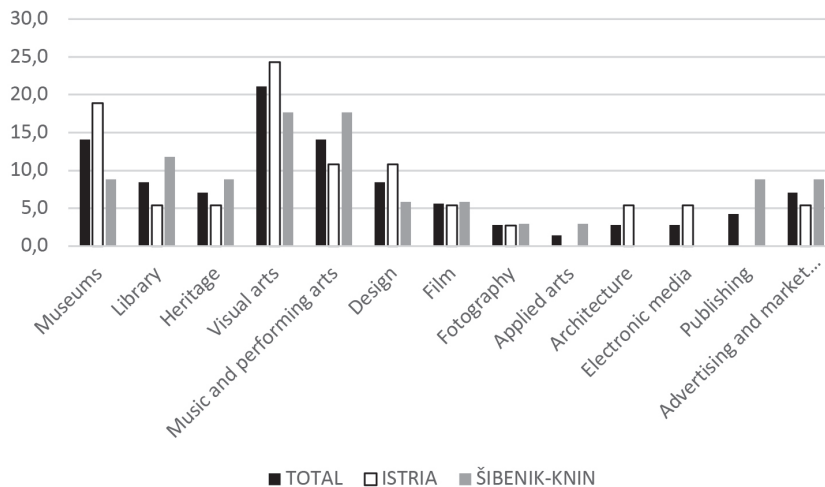
The characteristics of the sample point to the spatial concentration of respondents, which is expected since inhabitants also show spatial concentration and mostly live in (larger) cities. In Istria County, 37.8% of all respondents come from Pula, the largest city in this county. In contrast, half of all respondents in Šibenik-Knin County come from Šibenik, the largest city and administrative centre.

The structure of respondents according to the CCI sub-sectors shows that most respondents reported working in visual arts (21.1%), music and performing arts (14.1%) and museums (14.1%) (Figure 1). Some respondents reported working in several sub-sectors. The structure of respondents according to the legal form indicates that most of the respondents work in public institutions (29.3%) (Table 2), which is linked to the fact that almost the same percentage of respondents reported working in museums, libraries or heritage institutions (29.6%), which are in most cases public

3 Questionnaire (in Croatian) is available on request. However, a short summary table with main blocks of questions is added in the appendix (Table A1).

institutions. Of the respondents working in private entities, 26.8% are craftsmen and 23.9% work in limited liability companies. However, not all respondents are actually formally employed in the organisation they represent. This becomes evident in the question as to whether the respondent's organisation has employees. In 64.8% of cases, the respondents replied that their organisation has at least one employee, whereas the remaining 35.2% said their organisation does not have formally employed any employees (Table 2). In half of the sample, the number of employees is three or less (but not zero), whereas only in 8 cases the number of employees exceeds 10. Given that the CCI sector is often characterised by individuality, the relatively small number of employees should not come as a surprise. Also interesting to note is that more than half of the respondents are females (56.3%), but in 7% of cases, respondents did not want to answer the question related to their sex (Table 3). Similarly, 21.1% of respondents did not want to disclose their age. Of those who did disclose their age, we can conclude that the median age is 45 years, where the youngest respondent is 29 and the oldest 65 years old. It seems that the respondents in the CCI sector value formal education (at least the respondents in our survey), given that 78.9% have above secondary education – much higher than the national average.⁴

Figure 1. Structure of respondents by CCI sub-sectors, in %, n = 71



Source: Authors' calculations

⁴ This is consistent with the mapping of CCI at the national level, Rašić Bakarić et al. (2015): In all, 45.4% of people employed in creative and cultural professions have above secondary education, while for people employed in other occupations this figure is 21.7%.

Table 2. Structure of respondents according to legal form of organisation and number of employees, in % n=71

	TOTAL	ISTRIA	ŠIBENIK-KNIN
LEGAL FORM			
Independent artist/independent activity	9.9	5.4	14.7
Non-governmental organisation	8.5	5.4	11.8
Limited liability company	23.9	37.8	8.8
Simple trading company	1.4	0.0	2.9
Craftsman	26.8	27.0	26.5
Employed in a public institution	29.6	24.3	35.3
NUMBER OF EMPLOYEES			
0	35.2	24.3	47.1
From 1 to 4	39.4	48.6	29.4
From 5 to 14	15.5	21.6	8.8
From 15 to 49	7.0	2.7	11.8
From 50 to 56	2.8	2.7	2.9

Source: Authors' calculations

Table 3. Structure of respondents according to gender, age and education, in % n=71

	TOTAL	ISTRIA	ŠIBENIK-KNIN
SEX			
Male	35.2	37.8	32.4
Female	56.3	56.8	55.9
Other	1.4	0.0	2.9
I don't want to answer	7.0	5.4	8.8
AGE			
20 - 30	2.8	0.0	5.9
31 - 40	28.2	27.0	29.4
41 - 50	21.1	21.6	20.6
51 - 60	22.5	27.0	17.6
61 - 65	4.2	5.4	2.9
I don't want to answer	21.1	18.9	23.5
EDUCATION			
High school	16.9	21.6	11.8
University	67.6	70.3	64.7
MSc, PhD	11.3	5.4	17.6
I don't want to answer	4.2	2.7	5.9

Source: Authors' calculations

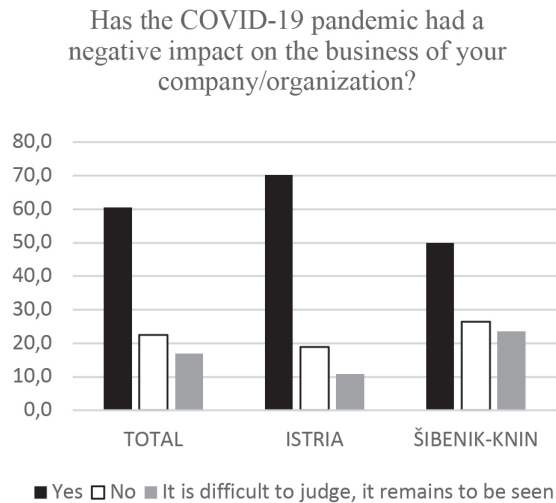
Most entities in the CCI sector in Istria County and Šibenik-Knin County were not recently established. More than half of the entities were established before 2008, with some of the oldest established more than 100 years ago. Still, the sector seems to be dynamic, as almost 30% of the entities were established after 2015. Also, it seems that the COVID-19 pandemic has not completely halted the establishment of new enterprises, as we received several replies from persons not completing the survey and saying they believe their organisation is too young to answer the questions.

3.2. *Impact of COVID-19 on CCI in Istria County and Šibenik-Knin County*

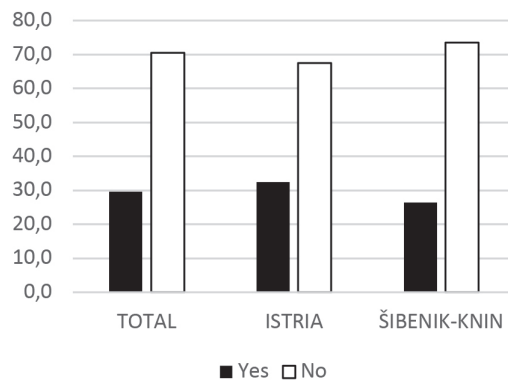
It seems that the COVID-19 pandemic has had a negative effect on most entities in the CCI sector (for 60.6% of entities) (Figure 2), which is reasonable to expect given that the sector has been heavily affected by restrictive measures. Also not surprisingly, this is a similar result to many other studies, such as Lyons (2023), Zygierewicz (2022) and O'Brien, Gilmore and Walmsley (2024). Still, it is reassuring to note that 22.5% of respondents do not think the COVID-19 pandemic negatively impacted their business, with an additional 16.9% currently unsure of the effects. Other studies also found that there are some subsectors of CCIs which were not that heavily hit by the pandemic. Moreover, for some of them, demand for their services even increased. The most notable example is the IT sector (Khlystova, Kalyuzhnova and Belitski, 2022). However, our survey does not comprise of business entities from the IT sector. Business entities from the sample that stated they were not affected by COVID-19 are mostly public institutions, whose revenues do not exclusively rely on demand for their services, such as libraries.

However, large and statistically significant differences exist between respondents in Istria County and Šibenik-Knin County. More than two third of respondents in Istria County believe that the COVID-19 pandemic has had a negative effect on their business, while exactly 50% of respondents in Šibenik-Knin County think the same.⁵ The remaining difference does not come from respondents who did not experience hardship from the pandemic but from those uncertain of the effects. Hence, in Istria County, 10.8% of respondents are still uncertain as to whether the COVID-19 pandemic has had a negative effect on their business, while this figure rises to 23.5% in Šibenik-Knin County. It seems that this difference in the impact of the COVID-19 pandemic on business activity between the two counties relates to a lower decrease in revenues in Šibenik-Knin County (Broz and Rašić, 2025), which is also evident from our survey as shown further on.

5 If we split the answers into two groups (1-negative effect and 2-not negative or I'm not sure), it turns out that the differences between Istria County and Šibenik-Knin County are significant at the 10% significance level ($p=0.071$).

Figure 2. The effect of COVID-19 pandemic on business, in %, n=71

Have you considered closing your business due to the pandemic?



Source: Authors' calculations

For some representatives from CCI, the COVID-19 pandemic has proven to be really a difficult time. These circumstances are reflected in the opinions where 29.6% of respondents were considering closing their business (Figure 2). Again, it is reassuring to find out that despite the difficult period, more than 70% of respondents did not harbour such thoughts. Anecdotal evidence gained from some survey respondents suggests that among those thinking about closing, longer restrictive measures would have led not only to considering closing their businesses but actually to closing. The survey shows that more respondents from the Istria County than those from the

Šibenik-Knin County thought about closing their businesses. This corresponds to their responses concerning the impact of the pandemic on their business activities, in which a significantly higher share of respondents in the Istria County declared that the COVID-19 pandemic negatively impacted their business activities.

Probably due to the fact that our survey was not conducted during the peak of the pandemic and the current evidence of the (lower than expected) effectiveness of the COVID-19 vaccine has been disseminated among the public (EMA, 2022), 63.4% of respondents do not align their business optimism with the development of the COVID-19 vaccine (Table 4). Nonetheless, for a significant number of respondents, the development of the COVID-19 vaccine has had a positive or very positive effect on their business optimism. Even though the main answers are very similar between the analysed counties, there is a striking difference in the magnitude as well as in age of those optimistic about the vaccine. While most respondents with favourable thoughts about vaccine development in Istria County believe that the vaccine significantly increases their business optimism, in Šibenik-Knin County, vaccine development does increase optimism but not considerably. Similarly, in Istria, older respondents are positive about the impact of vaccine development on their business optimism, whereas, in Šibenik-Knin County, the younger respondents have similar opinions. Even though we did not go into detail as to what led to this difference in the magnitude and age of those providing positive answers, it may very well be that there are different attitudes towards the vaccine in the two counties, which subsequently may have influenced their responses.

Table 4. How did the discovery of the vaccine affect the business optimism of respondents? (in %, n=71)

	TOTAL	ISTRIA	ŠIBENIK-KNIN
Reduced it to a great extent	1.4	2.7	0.0
Reduced it, but not significantly	1.4	0.0	2.9
Had no effect on business optimism	63.4	64.9	61.8
Increased it, but not significantly	16.9	8.1	26.5
Increased it to a great extent	16.9	24.3	8.8

Source: Authors' calculations

The relative loss of revenues due to the pandemic was high.⁶ Most respondents (36.6% for 2020 and 31.7% for 2021) report a relative loss in revenue due to the pandemic

6 Revenues are not a topic respondents like to talk about. Hence, only a quarter of them disclosed average yearly revenue over the three years immediately prior to the start of the pandemic. Still, respondents from Istria County are more open than those from Šibenik-Knin County – almost a third of respondents from Istria disclosed information about past revenues and only 17.6% from Šibenik-Knin County. The dispersion in average yearly revenue is very large. While the data on average yearly revenue reveals that median revenue before the pandemic was EUR 132.000, there is a large difference between the smallest and largest entities in terms of total revenues.

of between 50 and 75%. Previous claims that entities in Istria County were hit harder are also evident from their replies about the fall in revenue during the pandemic years. While a similar share of respondents reported a relative loss of between 50 and 75% in revenue due to the pandemic in both counties in 2020 and 2021, in Istria County in 2020, a much larger share of respondents reported a relative loss in revenues exceeding 75% (28% in Istria County and 12.5% in Šibenik-Knin County). It seems that the situation in Istria County improved in 2021, given that in 2021 the share of respondents with a relative loss in revenue above 75% fell to 12%, which is at the level of Šibenik-Knin County. A similar situation is recorded in other countries as well. UNESCO (2022) reported that losses in revenues of cultural and creative industries in 2020 across different countries ranged between 20 to 40 percent, while in subsequent years, they still remained unbalanced.

Most respondents report that in 2020 and 2021, they experienced a drop in revenues generated from performing business activities (80.5% of respondents). The respondents in our survey also reported a drop in revenue from the budget from local and regional self-government units, and the state budget, especially in 2020 (26.8% of respondents reported a drop in revenue from local self-government units and 14.6% from the state budget).⁷ Even though overall responses in Istria County and Šibenik-Knin County are similar, the data shows that respondents from Istria County more often reported that they experienced a drop in revenues generated from performing business activities, which again indicates harsher conditions for entities in Istria County than in Šibenik-Knin County.

As briefly stated above when describing the sample structure, only 64.8% of entities in our survey actually employ persons. Even though it sounds strange to run a business without employees, it is indeed possible. For example, upon hearing additional explanations from some respondents, a number of them are employed elsewhere, and the respective entity serves them as an additional source of income or is a means for undertaking part-time work (this also explains why some entities reported relatively low pre-pandemic revenues). Also, it may be that some respondents find it financially lucrative not to be employed in the respective entity, but just paying fees and allocating net earnings. These alternative arrangements seem more interesting to entities in Šibenik-Knin County since almost half of them have no employees, unlike in Istria County, where only about a quarter operate without any employees (Table 2). The median number of employees in the sample is 3.5, 4 in Istria and 3 in Šibenik-Knin County.⁸ Despite the hard times due to lower revenues during the pandemic, only 7% of entities laid off employees (at least one) in 2020 and 2021 (Table 5). In most cases, respondents reported that their organisation neither employed nor laid off employees (50.7%), while in 12.7% of cases, the entity actually employed additional people. The remaining entities do not have any employees. This is a somewhat different result

7 Detailed results can be obtained from the authors.

8 In Croatia mean employment in CCI was 4.3 in 2015 (Rašić Bakarić et al., 2015).

from many other countries, where the losses in employment in CCIs were very harsh (Florida and Seman, 2020; Fonner and Voss, 2020; Bhowmik et al., 2021). The reason for this is that many respondents from the survey work in public cultural institutions, where a (temporary) drop in revenues did not cause layoffs. For 2022, it was clear that the recovery was underway, given that 18.3% of all respondents declared that their organisation employed at least one person, while only 1.4% laid off at least one worker. The expectation for 2023 was even more favourable than for 2022. At least one worker should have been employed by 22.5% of entities, and an additional 8.5% expected to employ more than one person. Still, some entities expect to lay off workers, with some explaining that the decision is not directly related to their business but to employees wanting to pursue an independent career. Respondents from Istria County are more optimistic than those from Šibenik-Knin County, given that 35.1% plan to employ at least one person. In comparison, 26.5% of respondents in Šibenik-Knin County expect to do the same.

Table 5. Layoffs and hiring in 2020, 2021 and 2022, in %, n=71

	Did you hire and/or fire workers in 2020/21 and in 2022?						What are the expectations related to hiring and/or firing of workers in 2023?			
	TOTAL '20/'21 '22		ISTRIA '20/'21 '22		ŠK '20/'21 '22		TOTAL	ISTRIA	ŠK	
There were no new hirings or layoffs	50.7	52.1	56.8	54.1	44.1	50.0	We do not intend to hire new or fire existing employees	35.2	35.1	35.3
We fired at least one worker	7.0	1.4	5.4	2.7	8.8	0.0	We intend to lay off a certain number of workers (at least one worker)	4.2	5.4	2.9
We hired at least one worker	12.7	18.3	10.8	18.9	14.7	17.6	We will employ at least one worker	22.5	29.7	14.7
Not applicable (I have no employees)	29.6	28.2	27.0	24.3	32.4	32.4	We will employ more than one worker	8.5	5.4	11.8
							Not applicable (I have no employees)	26.8	21.6	32.4

Source: Authors' calculations

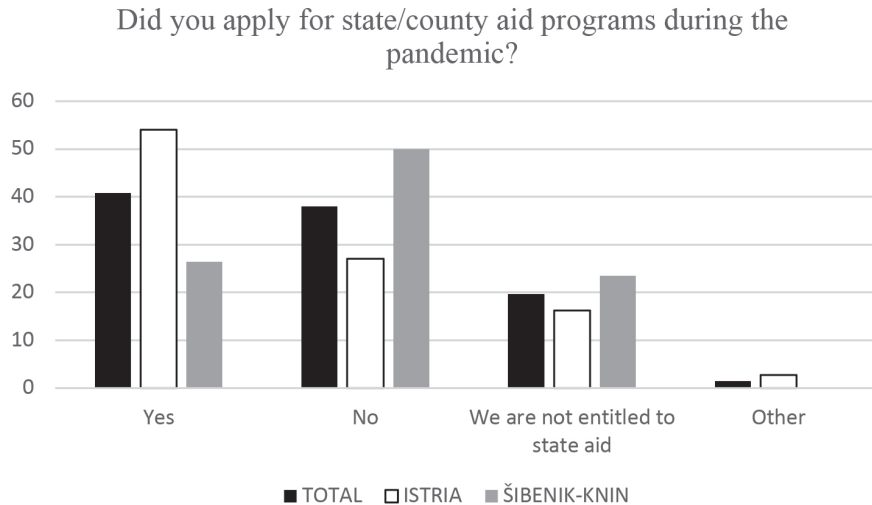
In this survey, entities from the CCI sector show a high diversity in business activities, with more than half engaged in more than one activity. More than one-third of entities are active in activities such as exhibitions, promotions and workshops, while more than one-quarter organise concerts or round table forums. Some entities also actively organise literary events, film projections, theatre events, performances, dance shows and other forms of entertainment. The lockdown in 2020 had the greatest effect on activities that include presence of larger number of persons in closed spaces, since restriction measures explicitly targeted such places. Hence, it is no surprise that in 2020 only 15.6% of planned theatre events were held, 21.7% of planned performances, 31.9% of planned workshops and 35% of planned concerts (Table 6). Interestingly, 70% of film projections were held, but we do not know how profitable the projections were due to the significantly lower number of visitors allowed to attend. Similarly, almost all round table forums were held in 2020, and more than 80% of literary events, but it is possible that they were partly held online or permitted a limited number of visitors. Most activities in both counties returned to normality in 2022, but some business activities saw no full recovery in 2022, which corresponds to the expected drop in revenue for some respondents even in 2022.

Table 6. Conducted business activities as a percent of planned activities in 2020 and 2022, in %

	TOTAL		ISTRIA		ŠIBENIK-KNIN	
	2020	2022	2020	2022	2020	2022
Theatre plays	15.6	88.4	14.3	100.0	15.8	87.5
Dance shows	66.7	100.0	0.0	100.0	75.0	100.0
Performances	21.7	57.7	9.1	100.0	33.3	26.7
Concerts / parties / musical evenings	35.0	86.2	13.6	70.9	50.5	95.8
Exhibitions	58.1	79.8	67.4	75.0	48.8	87.5
Film projections	70.0	84.4	69.2	80.6	85.7	97.1
Literary events	82.9	85.5	89.5	83.3	75.0	91.3
Promotion / presentation	44.7	91.0	31.0	91.3	66.7	90.6
Round tables / public discussions / lectures	98.6	85.5	36.8	100.0	120.4	79.5
Workshops / training sessions	31.9	88.3	44.0	93.3	31.2	87.9
Entertainment content (quizzes, stand-up comedy, etc.)	51.9	90.4	35.3	87.5	80.0	96.0
Other	53.5	135.6	54.7	137.0	20.0	85.7

Source: Authors' calculations

Due to the negative effect of the COVID-19 pandemic on revenue, employees and business activities, the Croatian government and local authorities reacted quickly to try to alleviate the fall in revenue and halt possible layoffs. Despite criticisms that measures were not enough and not well targeted (Krolo et al., 2020), they managed to help the CCI sector since most entities survived the pandemic and, as explained before, most entities did not think about closing their businesses due to the pandemic. To support the economy, particularly sectors like CCI that were heavily affected, the government introduced various financial aid packages. In March 2020, the Ministry of Culture initiated measures to assist artists and cultural workers who lost income due to event cancellations and venue closures. This included a Crisis Fund of approximately 6.4 million EUR to support the cultural and media sectors. In April 2020, a scheme was approved to provide loans with subsidized interest rates to companies affected by the pandemic, enhancing access to liquidity, while in June 2020, a 40 million EUR scheme was introduced to support enterprises in the maritime, transport, travel, infrastructure, and related sectors through state guarantees on new loans. Further, in July 2020, additional loan guarantee program was launched for entrepreneurs in the cultural and creative industries, allowing loans up to 800,000 EUR with a 100% government guarantee. Additionally, the government implemented job preservation measures, offering financial support to employers in sectors affected by the pandemic. This included aid of EUR 431.3 (HRK 3,250) and later of EUR 530.9 (HRK 4,000) per full-time employee, with proportional amounts for part-time employees. More than 40% of respondents declared that they applied for state or county assistance, while 38% said that they had not applied, and 19.7% said that they were not entitled to state or county assistance programs. However, there are significant differences between Istria County and Šibenik-Knin County. In Istria County, 54.1% of respondents said that their business entity applied for state or county assistance, while in Šibenik-Knin County, only 26.5% of respondents applied for assistance ($p=0.054$) (Figure 3), highlighting again the harsher conditions in Istria County. Different entities utilised different aid programs, and the distribution is very high. However, it may be concluded that the right to assistance of EUR 431.3 (HRK 3,250) per full-time employee and EUR 215.7 (HRK 1,625) per part-time employee was the measure mentioned most often by respondents in both analysed counties. It seems that measures related to job preservation had stronger impact on respondents than measures related to liabilities, since only one respondent identified moratorium on existing obligations and one respondent identified HAMAG-BICRO COVID-19 working capital loan as measures they used to eliminate negative impact of the pandemic. In other EU countries important government measures included financial support measures that helped sustain cultural activity (e.g. France), as well as measures to financially support cultural workers' income (e. g. Italy, Austria) and alleviate financial burden (e.g. Germany) (European Union National Institutes for Culture, 2020). It seems that measures that were prompt and timely had more positive effect on CCIs survival.

Figure 3. Applications for state/county COVID-19 aid programs, in %, n=71

Note: If we split the answers into two groups (1=yes and 2=no), it turns out that the differences between Istria County and Šibenik-Knin County are significant at the 10% significance level ($p=0.054$).

Source: Authors' calculations

Response measures created by the government and local authorities could have had a short-term positive impact, but entities in the CGI sector needed to adapt to the consequences of the COVID-19 pandemic. Hence, to adapt to the crisis caused by the COVID-19 pandemic, they had to make changes in their work arrangements. In both counties, most respondents declare that their organisations introduced safety measures at work in line with the instructions for collectives and employers, postponed some business trips and held meetings using online tools (Table 7). Measures such as layoffs and reducing salaries were not popular for entities in our sample. Among similar changes in work arrangements in Istria County and Šibenik-Knin County, there are also some differences. In the Istria County, popular changes in work arrangements included sending employees to work from home and providing them with the necessary IT equipment for that purpose. In the Šibenik-Knin County, cancelled business trips were moved online, while hiring external co-workers was postponed until further notice.

Table 7. Changes made in the work of organisations to adapt to the COVID-19 pandemic, in % of respondents who agree with the statement, n=71

	TOTAL	ISTRIA	ŠK		TOTAL	ISTRIA	ŠK
We held all meetings using online tools	50.7	48.6	52.9	Events related to cancelled business trips were moved online	43.7	37.8	50.0
We have sent employees (or part of employees) to work from home	39.4	45.9	32.4	We postponed the engagement of external collaborators until further notice	40.8	40.5	41.2
We introduced safety measures at work	60.6	59.5	61.8	We changed the work tasks of the employees	35.2	40.5	29.4
We closed the area to cultural and artistic activities	23.9	27.0	20.6	We postponed some business trips	57.7	56.8	58.8
We postponed paying some bills	33.8	40.5	26.5	We provided the necessary IT equipment to employees to work from home	43.7	48.6	38.2
We hired new employees	14.1	13.5	14.7	We fired some employees	4.2	2.7	5.9
We reduced employee remuneration	14.1	16.2	11.8	We terminated some contracts for external services	28.2	27.0	29.4

Source: Authors' calculations

Regarding the adaptation of creative and/or cultural and artistic activities to the new circumstances caused by the COVID-19 pandemic, most respondents in both counties declare that they have shared a greater number of activities via online media (social networks) and that they used time during the pandemic to prepare for improving future business operations⁹. Even though these were the most popular operational adaptations, other examples of adaptation were also noted. In most cases, entities used more than one approach to adaptation, and some utilised almost all of the offered suggestions in the answers, pointing out their determination not to bow down under the pandemic difficulties but innovate and better prepare for the future.

Most entities have in some way adapted their cultural and artistic activities to online media and other media formats during the pandemic, where the most popular approaches are the distribution of video recordings of conducted business activities

⁹ Detailed results are available upon request.

via digital platforms and the use of various platforms for closed group events. Other techniques, such as podcast channels, virtual tours and special newsletter editions, were not widely used. Even though the techniques mentioned above for adapting were important in Istria, live streaming via social media and webinars in the county also played an important role. Still, using online media was insufficient for the CCI sector to reach its audience. Therefore, some entities utilised other approaches to adapt to the pandemic, such as organising activities in public spaces or in front of residential buildings, broadcasting radio shows and organising drive-in activities.

Hence, it can be concluded that digitalisation and the online environment helped the CCI sector remain at least active and be able to undertake their business activities during the pandemic, even though it is doubtful whether the activities significantly improved their revenues.

Until now, the survey has shown that despite difficulties caused by the COVID-19 pandemic, entities in the CCI sector made great efforts to maintain their businesses and many did not even consider closing their business. Their resilience is evident from a series of questions examining how they viewed their resilience under the circumstances brought on by the crisis.¹⁰ It is shown that in both counties most of the respondents believe their company: does not give up but maintains its position despite the challenging circumstances; is successful in developing novel solutions; resists challenges in order not to make losses; does not give up despite the problems and continues on its way; reacts quickly and takes appropriate measures; develops alternative solutions in order to profit in spite of crisis circumstances; can act quickly if the need arises; is a place where all employees are engaged to do what is asked of them; and is successful in acting as a whole with all its employees (Table 8). Still, respondents from Istria County are clearly optimistic in their attitudes toward their company's resilience. In all but one statement, respondents from Istria County see their resilience in challenging circumstances as more favourable than those from Šibenik-Knin County. This is especially the case in statements regarding whether their institution is successful in developing different solutions, reacts quickly and takes appropriate measures and develops profitable alternative solutions despite the challenging circumstances. Hence, it seems that entities from Istria County perceive themselves as more innovative and faster in adapting.

10 The inspiration for questions about resilience come from Kantur & Iseri-Say (2015) and Krolo et al. (2020).

Table 8. Perceiving one's resilience in the crisis, in % of respondents who agree with the statement, n=71

	TOTAL	ISTRIA	ŠK		TOTAL	ISTRIA	ŠK
Our company does not give up and maintains its position despite challenging circumstances	81.7	83.8	79.4	It develops profitable alternative solutions despite the crisis	71.8	81.1	61.8
It is successful in developing different solutions	70.4	78.4	61.8	It can act quickly if the need arises	78.9	81.1	76.5
It resists circumstances to avoid making losses	74.6	73.0	76.5	Our company is a place where all employees are engaged to do what is asked of them	63.4	67.6	58.8
Our company does not give up despite the problems and continues operating	84.5	86.5	82.4	It is successful in getting all its employees to act as a collective	71.8	73.0	70.6
It reacts quickly and takes appropriate measures	76.1	83.8	67.6				

Source: Authors' calculations

Optimism in some of the respondents' thoughts is evident in the open-end question about the potential long-term economic consequences of the COVID-19 pandemic on their business activities. Despite expecting that almost all respondents would be rather gloomy about the long-term economic consequences of the COVID-19 pandemic, it seems that some of the respondents tried to embrace the crisis and draw as much optimism as possible from it. Apart from those respondents who think that the COVID-19 pandemic will have a long-term negative effect on their business activities or those who are unable to estimate the possible consequences, there were plenty of those who think that the pandemic will have a long-term positive impact on their business as it has forced them to adapt to the new circumstances and subsequently open new sources of revenue. For that reason, it was not surprising that more than half of the respondents in Šibenik-Knin County and a bit less than a half in Istria County think that, in addition to the negative effects of the pandemic on their business performance, pandemic also had positive effects (such as faster digitisation and the introduction of working from home). Hence, despite the negative impact on revenues, it seems that the respondents from our survey managed to maintain a positive spirit and attitude about the future business performance of their institution.

4. CONCLUSIONS AND DISCUSSION

In this paper, we analysed the online survey conducted on business entities in CCIs in two tourist coastal Croatian counties – Istria County and Šibenik-Knik County. The primary motivation for the survey was to find out how business entities in the two counties coped with the COVID-19 pandemic. We were interested in what perceptions and opinions do survey participants in CCIs have about the COVID-19 pandemic and are there some differences between counties. Also, we researched how resilient are business entities in CCIs and which measures did they use to adapt to harsh COVID-19 circumstances. As well, we wanted to know to what extent did business entities in CCIs use government aid measures introduced to combat the negative developments.

The survey results on the impact of COVID-19 on the creative and cultural industries in Istria County and Šibenik-Knin County reveal several important trends. The pandemic had a substantial short-term negative effect on most surveyed entities, with a greater impact reported in Istria County (70%) than in Šibenik-Knin County (50%). This aligns with existing literature, such as Lyons (2023) and Zygierewicz (2022), which highlight the severe disruption faced by CCIs due to COVID-19-related restrictions. Accordingly, the surveyed business entities from Istria County reported a greater decrease in total revenue in 2020 compared to 2019 than those from Šibenik-Knin County. The fall in total revenue (more than 50%) was reported by 64% of the respondents from Istria County compared to 50% of respondents from Šibenik-Knin County. Upon observing the percentage of respondents who experienced a fall in revenue exceeding 75%, the differences became even more pronounced, with 27.5% of the respondents from Istria County reporting that high fall in revenue compared to 12.5% from Šibenik-Knin County. Hence, respondents from Istria County were more inclined to close their businesses than those from Šibenik-Knin County. The results indicate a slight recovery of the CCI sector in 2021, which is why a smaller share of respondents expected a further decrease in revenue compared to 2019. Interestingly, this percentage was still significantly higher for Istria County (52% of respondents) than for Šibenik-Knin County (31% of respondents). These findings conform to the analysis of the business results of entrepreneurs in the CCI sector in the two counties for the period 2019-2021, which includes the entire population of entrepreneurs obliged to submit financial statements (Broz and Rašić, 2024).

Regarding the sources of revenue, the majority of respondents (80.5%) recorded a fall in revenue from business activities, 27% reported a fall in revenue stemming from the budget of local and regional self-government units, and 15% experienced a decrease in revenue from the state budget. Even though the overall responses in Istria County and Šibenik-Knin County were similar, the respondents from Istria County reported more often that they experienced a fall in revenue from business activities, which again confirms worsening conditions for entities in Istria County, more so than in Šibenik-Knin County. It seems their businesses faced even more significant challenges than the surveyed businesses from Šibenik-Knin County (or perhaps they do not rely

as much on public funds). Even though a higher percentage of respondents assessed the short-term impact of the pandemic as negative in Istria County, a higher share of them perceived their businesses as significantly more resilient to crises, such as the COVID-19 pandemic. This aspiration to resist failure in business was also evident in the higher percentage of Istrian respondents who applied for public support measures for the CCI sector, i.e., 54% of the surveyed entities from Istria County compared to 27% from Šibenik-Knin County.

Despite experiencing challenges in achieving revenue during the pandemic, it can be concluded that the pandemic did not have a significantly negative effect on employment in CCI in either of the respective counties in 2020 and 2021. In most cases, respondents reported that their organisation neither employed nor laid off employees. The recovery in 2022 was confirmed by the fact that almost 20% of all respondents said that their organisation hired at least one worker, while only 1.4% of respondents reported layoffs. This contrasts with findings from Khlystova, Kalyuzhnova and Belitski (2022) as well as Florida and Seman (2020) and Bhowmik et al. (2021), who noted significant job losses in CCIs in other parts of the world. The explanation for this discrepancy is that many respondents from the survey work in public cultural institutions, where revenue fluctuations did not immediately result in layoffs. Also, the government implemented job preservation measures, which also helped maintain employment.

Overall, based on how business entities in the CCIs have adapted and implemented their business activities, it can be concluded that their strategy was orientated toward creating and sharing online content. Furthermore, the business entities utilised the available time and spare capacity during the pandemic to prepare and improve future business operations. Some of the more popular digital approaches were distributing videos about the activities performed via digital platforms and utilising different platforms for closed group events. Some entities resorted to other ways of adapting to pandemic conditions, such as holding activities in public spaces or in front of residential buildings, conducting radio broadcasts and organising drive-in activities. Still, some businesses had problems adapting to the new circumstances, given that almost 30% of the respondents thought about halting or closing their business during the pandemic, with respondents from Istria County more pessimistic than those from Šibenik-Knin County.

A crucial aspect of this study is the reported optimism among respondents regarding the long-term implications of the pandemic. Hence, despite the short-term strong negative effect of the pandemic, respondents remained quite optimistic about the long-term impact of the pandemic on their businesses. Many participants, particularly those from Istria County, indicated that the crisis accelerated adaptation and innovation within their businesses. This aligns with research by Fautino (2022), who described the pandemic as an accelerator of digital innovation in CCIs. Respondents adapted by increasing their online presence, hosting virtual events, and exploring new revenue streams, similar to the findings by Agostino et al. (2020) on Italian museums

and Gu et al. (2020) on the Chinese indie music sector. On the other hand, 20% of all respondents believe that the pandemic will not have a long-term positive effect on them, where this percentage in Istria County is 27% and significantly lower in Šibenik-Knin County at 12%.

The disparity in the perceived impact between the two counties may be explained by their differing economic structures. Istria County, being more economically developed, might have had a greater initial reliance on traditional revenue streams, making the shift to alternative models more challenging. This interpretation is supported by Broz and Rašić (2024), who found a greater revenue decline in Istria County. The application rate for government support programs was also higher in Istria (54%) than in Šibenik-Knin County (27%), reinforcing the notion that the crisis hit businesses harder in the former. The disparity in the perceived impact between Istria County and Šibenik-Knin County could also be explained by a different magnitude of the demand adjustments. For example, tourists are important source of revenue for CCIs in both counties, as they often engage in various cultural activities such as visiting museums, galleries, festivals, and heritage sites. Hence, the stronger year-on-year drop in overnight stays in Istria County in 2020 compared to Šibenik-Knin County (-56.6% vs. -51.2%) implies that demand for cultural products, largely driven by tourist consumption, had stronger adjustment in Istria County.

The resilience of CCIs in these Croatian counties is also evident from their adaptation strategies. Respondents reported embracing digital tools, restructuring work arrangements, and implementing health and safety measures, consistent with Marian-Potra et al. (2022), who emphasized the role of multi-level policy responses in strengthening CCI resilience. Furthermore, the literature suggests that CCIs tend to cluster in urban centres (Lange et al., 2008; Lazzeretti et al., 2008), which may explain why larger cities within these counties showed more dynamic responses to the crisis.

However, certain limitations must be considered when interpreting the findings of this study. In general, it is important to point out some of the disadvantages of online surveys, such as unrepresentative samples, low response rates, internet restrictions, and lack of follow-up data (Rice et al., 2017). In addition, it is not excluded that study has several limitations related to sample size and the fact that sample is biased in favor of respondents who were motivated to participate in survey. At the same time unsuccessful companies could be underrepresented because they were either not motivated to participate in the research or no longer existed. Third, the two samples were quite comparable in terms of age and gender, but they were not of optimal comparability in terms of proportion of participating sectors, legal form of organization, employment, age and education. Therefore, results related to the comparison between two counties should be interpreted with caution. Due to the small number of respondents, the results of this research cannot be generalized to the entire sector of creative and cultural industries in Croatia. To generalize the results, future research should be based on a sample from the entire population of entities in the creative and cultural sector. Furthermore, when interpreting the results

obtained, it should be born in mind that the sector of creative and cultural industries is characterized by extreme heterogeneity and diversity.

Overall, this research supports the broader dialogue on the vulnerability and adaptability of CCI in times of crisis. While the short-term effects were severe, the pandemic acted as a catalyst for digital transformation and business model innovation. The findings suggest that, in the long run, the CCI sector in Croatia may emerge more resilient, with businesses better prepared for future disruptions. However, continued government support and investment in digital infrastructure will be crucial to sustaining this momentum.

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APPENDIX

A1. Main blocks of questions from the survey

Main block	Variables / Questions
Structure by sectors	e.g. museums, libraries, heritage, visual arts, music and performing arts, design, film, photography, crafts (artistic crafts), architecture, electronic media, publishing, advertising and marketing communications
Legal and organizational form	e.g. independent artist/self-employed, non-governmental organization, limited liability company, simple limited company, craftsman, employed in a public institution
Socio-economic characteristics of the sample	gender, age, educational level, year of starting business/engaging in cultural or creative activity
Impact of the pandemic (general)	impact of the pandemic on business operations, (positive and negative) considerations about closing the business, vaccine discovery and optimism
Impact of the pandemic (income)	income before, during, and after the pandemic; sources of income
Impact of the pandemic (employment)	number of employees during and after the pandemic
Impact of the pandemic (activities)	implementation of cultural activities
Impact of the pandemic (measures)	support programs
Adaptation	adaptation to business conditions arising from the pandemic
Digitalization and resilience	digitalization of content, perception of one's own resilience