# COVID-19 IMPACT ON CULTURAL INSTITUTIONS: CASE STUDY FROM UKRAINE

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**Abstract:** The Covid-19 pandemic has led to a sharp deterioration in the situation of cultural institutions in many countries, including Ukraine. The article presents the results of a comparative analysis of the impact of lockdowns and quarantine restrictions 2020-2021 (according to 9 months) on the economic indicators of activity of the Lviv Art Palace as one of the largest exhibitions centres in the western Ukraine. The results of the activities of the Lviv Art Palace for the 9 months of 2021 show that there is a gradual adaptation to the restrictions caused by the Covid-19 pandemic. In 2021, the results of the exhibition activities of the Lviv Art Palace improved. But financial indicators of activity have deteriorated since the first year of the pandemic.

Keywords: Covid-19, cultural institution, quarantine, economic impact, the Lviv Art Palace

**JEL:** Z11, Z32

#### Introduction

In Ukraine, as in most other countries, some industries have suffered the most from quarantine restrictions. The tourism industry, the hotel and restaurant business, and the cultural industry are among them.

2021, like 2020, was difficult for cultural institutions, including art palaces. Exhibition centres, museums, art palaces, galleries faced many problems and challenges. In 2020-2021, the number of events that can be organized and held by exhibition facilities during the Covid-19 pandemic has sharply decreased. The number of people attending these events has significantly decreased. Cultural institutions suffer significant losses.

In Ukraine, the total loss of business in this area from unearned income at the end of 2020 exceeded UAH 83 billion (2.67 billion euros) – approximately 2% of GDP. During this time, cinemas lost about 39% of visitors, and the creative industries – about 50% of revenue (in some areas the percentage was much higher). The weekend quarantine, introduced in November 2020, also hit the creative industries the hardest: in one weekend they lost income UAH 324.16 million (10.45 million euros), and only cinemas lost UAH 17.13 million (552.5 thousand euros).<sup>1</sup>

In 2020 more than 1,000 significant cultural events were postponed.<sup>2</sup> These are, in particular, the Sorochyn Fair National Festival, the Atlas Weekend, UPark and Fine City Music Festivals, and the 10th International Book Arsenal Festival. Deferment indefinitely (while the quarantine lasts) in practice involved the cancellation of the event. The organizers of some

<sup>&</sup>lt;sup>1</sup> MYKHAILOVA, O. (2021): Development of the cultural sphere in Ukraine in the context of the Covid-19 pandemic and the introduction of quarantine measures: problems, prospects, risks.

<sup>&</sup>lt;sup>2</sup> Ibid.

events (Book Forum Lviv, Intercity Music Festival, Docudays Film Festival, and Children Film Festival) tried to put them online. This approach has only partially justified itself. The Book Forum Lviv was held annually on the squares of the Lviv Art Palace. Therefore, holding this forum online caused a lack of income for this cultural institution. In September 2021, the Lviv Art Palace hosted the Book Forum Lviv again. This forum was already held in the usual format – offline.

Cultural institutions, as well as other economic entities, such as universities,<sup>3</sup> through their activities create a positive economic effect for other actors.

All this indicates the relevance of the study of the level of adaptation of cultural institutions to quarantine restrictions in 2021 compared to 2020.

The study aims to determine the preliminary results of the impact of Covid-19 on the economic activity results of cultural institutions (on the example of the Lviv Art Palace) in 2020-2021.

#### **1** Literature review

The imposition of quarantine restrictions in March 2020 negatively affected the activities of the creative industry. One of the common consequences of quarantine restrictions was the requirement for university museums and collections to transfer most of their programming to digital platforms. Cioppi & Gutiérrez, etc. note that there is much uncertainty about the shape of the global university sector after the pandemic.<sup>4</sup> However, existing problems can be turned into opportunities by creatively rethinking the work of the university museum.

With the outbreak of Covid-19, technology began to have a profound effect on our daily lives. Quarantine restrictions and social distancing due to the Covid-19 pandemic have significantly affected the activities of cultural institutions. The number of visits to museums has sharply decreased. Some research shows that visitors to virtual museums are not satisfied with their experience in virtual museums compared to the experience in real museums.<sup>5</sup> But given the safety of such visits, some respondents are ready to continue visiting virtual museums after the Covid-19 outbreak. Following the mandatory closure of museums, museum practices began to focus on technology, the Internet, and social media. Eryücel & Çelik predict that museum practice will benefit more from post-pandemic technology.<sup>6</sup> Due to virtual museums, the number of visitors will continue to increase.

The study by Noehrer & Gilmore show that Covid-19 not only affected institutions in the short-term during quarantine but also profoundly changed the future course of museums around the world.<sup>7</sup> Although some museums will not reopen their doors, most institutions have shown strong resilience. And they will return to this situation by adapting their strategies and modes of operation to the new paradigm. It will be an awakening of a society that has also changed profoundly; decisive action led to an almost complete restriction of public life, where the only way to stay in touch and with the world outside the walls was digital

It should be noted that over the last decade, the art industry, especially museums, art galleries, and auctions, has stagnated due to the global financial crisis (2007-2017) and the recent quarantine caused by the Covid-19 pandemic (2020–). Many art institutions have implemented digital technologies in their activities and moved to the online art market. Visiting art exhibitions includes communication with other visitors of similar interests. Thus, digital art

<sup>&</sup>lt;sup>3</sup> NESTORENKO, T. (2016): The importance of the university for the city's economy, p. 225.; NESTORENKO, T. (2021): Economic impact of international students on a host city.

<sup>&</sup>lt;sup>4</sup> CIOPPI, E. – GUTIÉRREZ, N. G. etc. (2020): University Museums from Home, p.138.

<sup>&</sup>lt;sup>5</sup> ERYÜCEL, Ö. – ÇELIK, A. (2021): Viewing Museums from a Distance, p. 441.

<sup>&</sup>lt;sup>6</sup> Ibid, p. 447.

<sup>&</sup>lt;sup>7</sup> NOEHRER, L. – GILMORE, A. – JAY, C. – YEHUDI, Y. (2021): The impact of COVID-19 on digital data practices in museums and art galleries in the UK and the US, p. 9.

platforms should create the same atmosphere and offer similar opportunities as physical ones. In their study Markopoulos etc. point to the use of avatar technology as a method of interaction in digital museum spaces.<sup>8</sup> According to researchers, the application of this digital strategy can transform the art market, promote the sustainable development of the museum, and offer the public a variety of ways to learn and entertain.

It is necessary to study the responses of famous cultural capitals – Berlin, London, Paris, Toronto, and New York – to the challenges posed by the Covid-19 pandemic.

For example, although Berlin's allocation for culture in 2021 has increased, the difficult situation with the city's budget is likely to show.

The role of private philanthropy, for example, has been used effectively in cities with relatively lower cultural budgets. New York and Toronto can rely on private and corporate funds to fund arts and culture. Policy instruments not only emphasize tax incentives aimed at attracting private funding but also create a "culture of giving" to art and culture. According to researchers, although Berlin receives significant revenue from the additional fund of the Berlin Lottery, its local philanthropic base could be expanded to include new public-private partnership models for foundations and local governments to work together on specific projects, especially at district and district levels.<sup>9</sup> Funds can be crucial to support new artists and startups or, for example, help existing institutions diversify their portfolios and business models.

During a pandemic, museums and other exhibition facilities face rapidly changing conditions. And it is necessary to adapt to these conditions as soon as possible. These conditions have led to the physical closure of venues, the dismissal of staff, unprecedented assistance from state and local budgets, and the digitization of exhibitions and programs. Most scholars study the epidemic as a social, psychological, economic, and cultural phenomenon. Levin emphasizes that other prospects are sure to come later.<sup>10</sup>

According to Kist, the digital interaction of museums during the pandemic is flourishing.<sup>11</sup> Such interaction brings promising benefits. But there are also ethical issues. Therefore, specialists of cultural institutions should discuss questions of justice, lack of privileges, comfort. Cultural institutions during and after Covid-19 face actual moral questions: will museums use temporary closures to understand current events, and will they stimulate critical reflection? Thus, the research proves that cultural institutions are gradually adapting their activities to the conditions of quarantine restrictions, translating it partially into digital format and looking for new forms of interaction with visitors.

Cultural institutions play a significant role in the economic development of the city.<sup>12</sup> And the deterioration of the results of their activities significantly affects the socio-economic situation of a city. Therefore, it is important and necessary to study the impact of the Covid-19 pandemic on cultural institutions.

#### **2** Theoretical chapter

With the onset of the pandemic in March 2020, the cultural industries faced challenges that required an immediate solution.

For example, in Canada, between February and July 2020, real gross domestic product (GDP) in the arts, entertainment, and recreation sub-sector fell by more than 50% from \$ 15.6 billion to \$ 7.3 billion. By comparison, Canada's GDP fell by 5.6% over the same period.

<sup>&</sup>lt;sup>8</sup> MARKOPOULOS, E. – CRISTINA, Y. C. – MARKOPOULOS, P. – LUIMULA, M. (2021): Digital Museum Transformation Strategy Against the Covid-19 Pandemic Crisis.

<sup>&</sup>lt;sup>9</sup> ANHEIER, H. K. – MERKEL, J. – WINKLER, K. (2021): Culture, the Arts and the COVID-19 Pandemic, p. 11.

<sup>&</sup>lt;sup>10</sup> LEVIN, A. M. (2020): 'Isolation as a collective experience': Museums' first responses to COVID-19, p. 295.

<sup>&</sup>lt;sup>11</sup> KIST, C. (2020): Museums, Challenging Heritage and Social Media During COVID-19, p. 345.

<sup>&</sup>lt;sup>12</sup> NESTORENKO, T. – LUKOVSKA, O. (2016): The role of museums in the development of the local economy, p. 112.

The pandemic also directly affected the labour market in the fields of arts, culture, heritage, and sports, which from February to May 2020 lost 180,500 jobs, up 57.7%. By comparison, total employment in Canada fell by about 20% over the same period. Despite the rapid growth of employment (+65,500) in June, July, and August, employment in the arts, entertainment, and recreation was 36.4% lower than in February 2020.<sup>13</sup>

The long-running ban on visiting museums, cinemas, exhibition centres, libraries, art sites, etc. has forced cultural institutions to introduce an online format for communicating with their visitors. Many museums have responded by posting their collections online, leading to a variety of digital initiatives that showcase the creativity, diversity, and community of the heritage sector. Some institutions have begun collecting pandemic collections to document the impact of the virus, while others have shared their already digitized collections with the public across multiple platforms. Social media, which is increasingly respected in the sector, has supported visitors, and even the museum industry itself has suffered as annual events such as museum + heritage shows have moved their programs online.

There are three types of responses to the Covid-19 pandemic:

1) trying to replicate the museum experience,

2) organizing alternative visits using online platforms,

3) implementing initiatives that involve radically different relationships with their audiences.  $^{\rm 14}$ 

The response to the challenges posed to cultural institutions by the pandemic can be in different formats and by different actors. Yes, public libraries in America have responded to Covid-19 by providing free series of webinars that are available on request for the entire country. evaluation, etc.<sup>15</sup> Volunteer organizations can play a significant role in organizing assistance to cultural institutions. The Mumbai Museum Society is a great example of how a volunteer organization can go its way in the digital age, especially during a pandemic.<sup>16</sup>

#### **3 Results**

In the second decade of March 2020, the Covid-19 pandemic posed challenges to cultural institutions in almost all countries, the significance of which was not immediately understood and understood. Museums, galleries, and palaces of art around the world have been forced to close their doors, making their physical collections inaccessible. This sudden break has prompted such cultural institutions to rethink their strategies, address current issues, and find ways forward that rely on virtual rather than physical interactions. Periodic lockdowns, a ban on visiting cultural institutions, including the Lviv Art Palace, continued in 2021.

The Lviv Art Palace functions as an art platform for active creative personalities who had the opportunity to realize their art projects daily in the "pre-test" times. Usually, throughout the year the space of the Palace of Arts is actively used for artistic purposes. It hosts various exhibitions of contemporary artists and sculptors, performances, and film screenings. The Lviv Art Palace is one of the largest buildings in the city, which houses significant collections of contemporary art and concentrates many different events. In particular, the Lviv Art Palace hosts the annual Publishers' Forum, a fair of various goods and services.

We should note that in 2020 and 2021, the consequences of the pandemic for cultural institutions are somewhat different. In 2020, quarantine restrictions came into force in the second decade of March. For almost 2.5 months of 2020, cultural institutions operated in the

 <sup>&</sup>lt;sup>13</sup> SIMMS, S. (2021): Impacts of the Covid-19 Pandemic on the Arts, Culture, Heritage and Sport Sectors, p. 4-5.
<sup>14</sup> BURKE, V. – JØRGENSEN, D. – JØRGENSEN, F. (2020): Museums at Home.

<sup>&</sup>lt;sup>15</sup> OYELUDE, A. A. (2020): "Libraries, librarians, archives, museums and the COVID-19 pandemic", p. 6.

<sup>&</sup>lt;sup>16</sup> JOHNS, J. (2021): Museums in a Digital Age in Pre- and Post- COVID-19 Scenario: A Case Study of the Adaptations by Museum Society of Mumbai, p. 14.

usual way. Therefore, when comparing the activities of the Lviv Art Palace for 9 months of 2020 and 9 months of 2021, it is necessary to consider the differences between these periods:

1) From 9 months of 2020, lockdown and quarantine restrictions were valid for a little over 6.5 months. In 2021, quarantine restrictions were in effect during January – September.

2) In the first months of the quarantine restrictions (from March 2020) both the management of the Lviv Art Palace and the owner of this cultural institution – Lviv Regional Council – did not understand how to act in the new conditions, did not know how long this period will last it is possible to wait for it, whether it is necessary to actively adapt the activity to new conditions of managing. In 2021, the Lviv Art Palace has already gained its own experience of working in a pandemic and applied the best global and domestic practices of adapting the activities of cultural institutions to new conditions.

Due to quarantine restrictions from March to September 2020, 200 events activities were cancelled in the Lviv Art Palace. The palace did not receive 2.5 million UAH (90 thousand euros). Despite the deteriorating financial condition of the Lviv Art Palace, in 2020 this cultural institution is fully fulfilling its obligations to employees. No one was released during the quarantine restrictions. All 46 employees of the palace receive a full salary.<sup>17</sup>

One of the main sources of income for the Palace of Arts is the organization and holding of commercial exhibitions (Table 1). The palace receives payment for each day of rent of its premises for exhibitions. In the forecast year 2019 (January-September), 12 such exhibitions were held (Table 1), most of which are annual. Due to quarantine restrictions for 9 months of 2020, it was possible to organize and hold only one exhibition. In addition, the duration of the exhibition was reduced (from 7-9 days in 2019 to 5 days in 2020). According to the data of 9 months of 2021, the activity of the Lviv Art Palace is reviving - 4 commercial exhibitions took place. The duration of exhibitions has also increased - 6-7 days.

There are some examples of events during 9 months of 2021 in the Lviv Art Palace. On December 31, 2020, the exhibition of teachers' creative works "TEXTILE VISIONS" was opened in the Lviv Art Palace within the framework of the Second International Symposium of Art Textiles "Teacher and student". On August 17, 2021, the exhibition "Colours of Silver Earth" was opened in the Lviv Art Palace.

Table 1. Indicators of the LVIV ATT Falace in 2020-2021 (9 months)			
Indicators	2019	2020	2021
Gross income from exhibitions (services), thousand	3579	2200	1691
UAH			
Grants, thousand UAH	0	783	0
Subsidies from the regional budget, thousand UAH	3350	3860	5736
Cost, thousand UAH	5366	5588	7216
Net income, thousand UAH	1563	472	211
Remuneration fund, thousand UAH	4201	4620	4679
Taxes to the local budget, thousand UAH	597	541	318
Number of staff	39	46	46
Employees in quarantine	-	9	1
Number of commercial events	12	1	4
Average duration of commercial events, days	7-9	5	6-7

Table 1: Indicators of the Lviv Art Palace in 2020-2021 (9 months)

Source: THE LVIV ART PALACE (2021): Report on the results of the Lviv Art Palace activities; THE LVIV ART PALACE (2020): Report on the results of the Lviv Art Palace activities; THE LVIV ART PALACE (2019): Report on the results of the Lviv Art Palace activities.

<sup>&</sup>lt;sup>17</sup> LUKOVSKA, O. – ORLENKO, I. – ZLENKO, N. (2020): Preliminary consequences of quarantine restrictions for a cultural institution, p. 436.

In 2020 (9 months), subsidies for the Lviv Palace of Arts from the regional budget amounted to 3860 thousand UAH (139 thousand euros). This sum is not much more than the subsidies for the same period in the pre-Covid 2019 - 3350 thousand UAH (124 thousand euros). But already in 2021 (9 months), the Lviv Regional Council as the owner of the Lviv Palace of Arts directed in support of this cultural institution 5736 thousand UAH (186 thousand euros).

But despite more active activities in the first 9 months of 2021, the economic performance of the palace has deteriorated. Even without inflation, revenues from exhibitions decreased (by 23%), and palace expenditures increased (by 29%). The number of employees did not change (46 people). The wage bill increased by only 1.3% due to an increase in the minimum wage. The deterioration of the financial results of the palace in 2021 led to an increase in subsidies from the regional budget (by 48.6%), a reduction of 41.2% of tax revenues from the palace to the local budget. In 2020, the financial position of the palace was better than the financial position in 2021 due to the attraction of a grant from the Ukrainian Cultural Foundation in 2020. Comparative analysis shows that the active exhibition activities of the palace do not always provide better financial results.

In determining the directions and formats of further activities, the management of the Lviv Art Palace should consider the development trends of the exhibition industry. According to experts, the threat will gradually disappear. Time will pass. The pandemic will end, even if the virus does not disappear. The business will resume work. Life will return to normal. Art grounds, exhibitions, galleries will play a key role in economic recovery.<sup>18</sup> The next years will be marked by a revival of trade and trade events. This involves real meetings of buyers with sellers to do business; return to real, "live" events after the online format.

#### Conclusion

Restrictions on public action were the government's first steps to counter the pandemic, and in 2020 they were repeatedly adjusted. Such policies have hit the creative industries hard, depriving cinema chains, concert agencies, art galleries, and independent theatre and music groups of their significant source of income.

According to the results of 9 months of 2021, it can be concluded that the decision of the Lviv Regional Council as the owner of this cultural institution and the CEO of the Lviv Art Palace in 2021 allowed to give better results, demonstrate more efficient and appropriate behaviour to support quarantine restrictions. Adaptation and development of the Lviv Art Palace are possible in various ways. According to world experience, one of the directions may be to create an organization of friends and supporters of the Palace of Arts.

Our research shows the adaptation of cultural institutions to the limitations of a pandemic. The Palace of Arts also partially translates its communication with visitors into digital format. On the one hand, this helps to support the exhibition activities of the cultural institution. But on the other hand, it reduces income.

#### **References:**

- ALHASNI, Z. (2021): The Economic Impact of COVID-19 on the Omani Tourism Sector. In: *Psychology and Education*, 2021, Vol. 58, No. 2, pp. 824-830. DOI: 10.17762/pae.v58i2.1946.
- 2. ANHEIER, H. K. MERKEL, J. WINKLER, K. (2021): Culture, the Arts and the COVID-19 Pandemic: Five Cultural Capitals in Search of Solutions. https://cutt.ly/BTZbbeo.

<sup>&</sup>lt;sup>18</sup> HATTENDORF, K. (2021): 5 trends to watch in 2021.

- BURKE, V. JØRGENSEN, D. JØRGENSEN, F. (2020): Museums at Home: Digital Initiatives in Response to COVID-19. In: *Norsk museumstidsskrift*, 2020, Vol. 6, No. 2.
- 4. CIOPPI, E. GUTIÉRREZ, N. G. etc. (2020): University Museums from Home: observations on responses to the impact of Covid-19. In: *University Museums and Collections Journal*, 2020, Vol. 12, No. 2, pp. 138-151.
- 5. ERYÜCEL, Ö. ÇELIK, A. (2021): Viewing Museums from a Distance: An Assessment on the Future of Virtual Museums. In: *Advanced in Managing Tourism Across the Countries*, 2021, pp. 441-449. DOI: 10.5038/9781955833004.
- 6. HATTENDORF, K. (2021): 5 trends to watch in 2021. [online]. In: *UFI*, 2021. Available at: http://blog.ufi.org/2020/12/02/5-trends-to-watch-in-2021/.
- JOHNS, J. (2021): Museums in a Digital Age in Pre- and Post-COVID-19 Scenario: A Case Study of the Adaptations by Museum Society of Mumbai. In: *Xplore – The Xavier's Research Journal*, 2021, Vol. 12, No. 1, pp. 14-27.
- 8. KIST, C. (2020): Museums, Challenging Heritage and Social Media During COVID-19. In: *Museum & Society*, 2020, Vol. 18, No. 3, pp. 345-348.
- 9. LEVIN, A. M. (2020): 'Isolation as a collective experience': Museums' first responses to COVID-19. In: *Museum & Society*, 2020, Vol. 18, No. 3, pp. 295-297.
- LUKOVSKA, O. ORLENKO, I. ZLENKO, N. (2020): Preliminary consequences of quarantine restrictions for a cultural institution. In: *International Relations 2020: International Relations 2020: Current issues of world economy and politics.* Proceedings of scientific works from the 21st International Scientific Conference. Pp. 432-441.
- MARKOPOULOS, E. CRISTINA, Y. C. MARKOPOULOS, P. LUIMULA, M. (2021): Digital Museum Transformation Strategy Against the Covid-19 Pandemic Crisis, https://doi.org/10.1007/978-3-030-80094-9\_27.
- 12. MYKHAILOVA, O. (2021): Development of the cultural sphere in Ukraine in the context of the Covid-19 pandemic and the introduction of quarantine measures: problems, prospects, risks. Available at: https://cutt.ly/9TZcz9e.
- NESTORENKO, T. (2016): Economic impact of international students on a host city: Case of the university of economics in Bratislava. 3rd Teaching & Education Conference, the International Institute of Social and Economic Sciences, June 28 – July 1, Barcelona, In: *Conference Proceedings*. https://cutt.ly/gQyJbh0.
- 14. NESTORENKO, T. (2021): The importance of the university for the city's economy: an example of the impact of a displaced university. In: *Bulletin of Khmelnytsky National University. Economics Science*, 2021, Vol. 1, No. 5, pp. 223-227.
- NESTORENKO, T. LUKOVSKA, O. (2016): The role of museums in the development of the local economy. In: *Contemporary issues of culture and art*. Edited by K. JANCZY, O. LUKOVSKA, T. NESTORENKO. Wydawnictwo Wyższej Szkoły Technicznej w Katowicach, Katowice, 2016, pp. 110-118.
- NOEHRER, L. GILMORE, A. JAY, C. YEHUDI, Y. (2021): The impact of COVID-19 on digital data practices in museums and art galleries in the UK and the US. In: *Humanities and Social Sciences Communications*, 2021, Vol. 236, No. 8, pp. 1-11.
- 17. OYELUDE, A. A. (2020): "Libraries, librarians, archives, museums and the COVID-19 pandemic", In: *Library Hi Tech News*, 2020, Vol. 37, No. 9, pp. 5-6.

- 18. LVIV ART PALACE (2021): Report on the results of Lviv Art Palace activities for 9 months of 2021. Manuscript.
- 19. LVIV ART PALACE (2020): Report on the results of Lviv Art Palace activities for 9 months of 2020. Manuscript.
- 20. LVIV ART PALACE (2019): Report on the results of Lviv Art Palace activities for 9 months of 2019. Manuscript.
- 21. SIMMS, S. (2021): Impacts of the Covid-19 Pandemic on the Arts, Culture, Heritage and Sport Sectors. In: *Report of the Standing Committee on Canadian Heritage*. April. 43rd parliament, 2nd session.

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