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Andrii Bilous*

Honored Artist of Ukraine, Associate Professor

I.K. Karpenko-Karyi Kyiv National University of Theatre, Cinema and Television

01054, 40 Yaroslaviv Val Str., Kyiv, Ukraine

<https://orcid.org/0009-0004-8232-6326>

Theatre effectiveness calculation

Abstract. With its origins dating back to ancient times, theatre faces competition from more modern and technological forms of entertainment in the 21st century. Consequently, the question of genre demand and its effectiveness – both mental and economic – is quite relevant. For Ukrainian theatre, which has faced the challenges of a full-scale invasion, the issue of effectiveness is even more significant. This study aims to determine the main indicators for assessing the effectiveness of theatres by analysing key performance indicators and financial aspects of institutional management. Using such methods as statistical analysis, comparison, synthesis, and forecasting, the research examined the current state of the industry and its economic indicators. As a result of the study, an increase in indicators of gross income, the number of employees, and personnel costs in Ukrainian theatres during 2015–2018 was proven, and the impact of COVID-19 on the activities of institutions was assessed using the example of Lviv. Separately, the impact of the war on the industry was studied, the mistakes made by Crimean theatres during the temporary occupation were assessed, and an analysis of the repertoire of relocated institutions on new stages was conducted. A unified system for comparing the economic indicators of various objects of performing arts was also developed, which is based on such a universal unit of measurement of goods as one spectator seat. The practical significance of the study lies in the creation of a set of economic effectiveness indicators – such as sales, cost, and troupe occupancy – which can be useful for relevant ministries and departments in calculating actual financial indicators and planning

Keywords: performing arts; creative industry; economy; charitable performances; ticket sales

INTRODUCTION

In the 21st century, the number of entertainment options, primarily of a technological nature, is increasing almost daily. Against this backdrop, the study of the economic effectiveness of such a conservative art form as theatre becomes quite relevant to understanding how to retain and expand the audience.

In addition to purely technological competition, at the beginning of the 2020s, the world's contemporary theatre faced the problem of the COVID-19 pandemic and related restrictions, while Ukrainian theatre faced the challenges of a full-scale invasion and the temporary occupation of additional territories. Under the new circumstances, some Ukrainian theatres were forced to cease operations, some

managed to relocate from the East and South to safer regions, and some revised their repertoire and operating hours. Nonetheless, the economic impact following the start of the full-scale war in February 2022 was felt by all Ukrainian theatres without exception. The effectiveness of theatres, which was significantly affected by these crises, required an updated calculation system to respond promptly and effectively. Moreover, there emerged a need for measurement tools that would allow for the comparison of different theatre institutions.

The topic of theatre's existence in crisis conditions has already been addressed by leading Ukrainian scholars in their research. For instance, B. Mochurad *et al.* (2021), by

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*Corresponding author



analysing the website of the Maria Zankovetska National Academic Ukrainian Drama Theater, developed their own methodology for calculating the profitability of the website from 2018 to 2020. The study examined trends in the number and duration of sessions, page views, as well as the impact of the coronavirus pandemic on these indicators.

With the restoration of Ukraine's independence in 1991, independent theatrical organisations emerged, which, unlike the outdated post-Soviet structures, possessed not only artistic but also economic acumen. M. Yakovenko (2022) in her research proved that increased competition positively influenced the development of managerial skills of the leadership of both new and traditional theatres, transforming a purely subsidised industry into a series of successful commercial projects with their own brands, communication strategies, and predictable profits.

Social theatre, as a phenomenon that does not aim for economic profitability, was studied by Y. Soroka & A. Savchenko (2021). Using the example of Kharkiv's forum theatre and playback theatre projects, the authors studied the therapeutic impact of such social events and the individual transformations of participants – both actors and spectators. The study proved that it is precisely in times of crisis – pandemic, occupation of Crimea and Donbas – that theatre turns into a means of psychological relief, where people, through catharsis, have the opportunity to get rid of some of their problems.

Exploring Ukrainian examples of implementing postmodern theatrical practices during the pandemic, Y. Bekh *et al.* (2021) proved the need to search for new types of communication and create a balance between the actor and the audience that would correspond to the new historical realities. One such solution during the pandemic was online broadcasts of theatrical performances, where the audience could be “present” without violating quarantine restrictions. At the same time, ticket sales for such remote events helped several theatres to receive funding and ensure their own effectiveness. V. Kovpak & N. Lebid (2022) considered the creative industry, which includes theatre, as a component of the creative economy and studied the processes occurring in this ecosystem: the formation of a corresponding entrepreneurial culture, the creation of social capital, the institution of reputation, etc. It was proven that one of the indicators of efficiency in the creative industry is the ability to monetise one's own talent.

When discussing the efficiency of theatre, it's important to consider this term not only in its financial sense but also in the context of achieving goals, one of which is to emphasise the features of Ukrainian national identity in the European cultural space. O. Mosendz *et al.* (2022) dedicated their study to analysing compositions that spread truthful narratives of the war to European audiences and, through art, convince the community of the need for urgent assistance to Ukraine.

Thus, the question of the efficiency of Ukrainian theatre has been the subject of scientific research multiple

times; however, it has not been studied in the context of developing an economic toolkit. The goal of this research is to determine the key indicators for evaluating the effectiveness of the activities of performing arts institutions.

MATERIALS AND METHODS

In the process of conducting this research, the features of the effectiveness of theatrical troupes and collectives were considered both in regular operation before 2020 and during the crisis challenges of the pandemic and full-scale invasion. In particular, to analyse migration processes in the theatre sphere and the conditions for restoring the repertoire in a new location, the method of synthesising individual cases of theatres in Kharkiv, Luhansk, and Sevastopol was employed. Additionally, through the method of comparison, current effectiveness indicators of key theatres in Lviv from 2018 to 2022 were contrasted. Such economic indicators as the number of performances per year and the number of spectators were compared dynamically.

To obtain objective data and calculate economic indicators, statistics from the Directorate of Creative Industries of the Ministry of Culture of Ukraine (2018) were used, which include data on the added value of theatrical and concert activities from 2013 to 2018. Since, according to the Official Letter of the Ministry of Culture and Information Policy of Ukraine No. 429/A-460/23-3III (2023), the MCIP did not collect official administrative reports on theatres during 2020–2022, more up-to-date information was collected from open unofficial sources or calculated using the extrapolation method.

In the course of the study, the analysis method was also used to identify the challenges faced by the national theatre – both at the regional level, such as the Kyiv City State Administration (Official portal of Kyiv..., 2023) and the activities of municipal theatres in the first year of the full-scale war; and at the national level, according to the statistics of the MCIP (2024) regarding damaged cultural infrastructure objects in Ukraine.

In addition to the above, the materials involved in conducting this research included operational data from the Ukrainian Cultural Fund (2024), the project for creating a digital theatre archive Theatre.Com.Ua (2020), the Official website of the State Statistic Service of Ukraine (2017), as well as Order of the State Statistics Service of Ukraine No. 318 “On Approval of the State Statistical Observation Form No. 9-nk (annual) ‘Report On the Activities of the Theatre for 20__’” (2013).

To objectively assess the effectiveness, which encompasses such diverse aspects of theatre operations as sales volume, income, social component, and labour resource involvement, the following indices were introduced: Sales Efficiency (*Es*), calculated as the ratio of tickets actually sold for performances to the total number of tickets; Cost of Goods (*Cg*), which is the ratio of total annual capital investments to the total number of tickets; Cost Efficiency (*Ec*), as the difference between cost of goods and the average cost; Efficiency of Employee Workload (*Eew*),

calculated as the actual workload of the troupe divided by the standard workload in man-hours; Labour Intensity (*LI*), which is the ratio of the standard workload in man-hours to a unit of product, understood as such a universal indicator as one spectator seat. Additionally, using forecasting methods, based on the obtained statistics of existing trends and expert opinions, the future prospects of theatrical arts in Ukraine were predicted.

RESULTS

Despite constant external pressure, Ukraine has managed to form a distinctive theatrical culture and a rich history of its own theatre. Starting with the first interludes of Iacob Gawatthowic in the 17th century, the Poltava theatre under the leadership of Ivan Kotlyarevsky, the syncretic “Theatre of Coryphaei” of Mykhailo Starytskyi, Marko Kropyvnytskyi, and Ivan Karpenko-Karyi, and ending with the legendary “Berezil Theatre” of Les Kurbas in the 20th century – Ukraine, since the restoration of independence in 1991, has inherited a rich theatrical legacy. As of 2017, there were 113 state and municipal theatres in the country (Theatre.Com.Ua, 2020).

When calculating the effectiveness of theatrical events, the Directorate of Creative Industries of the Ministry of Culture of Ukraine (2018) prepared an Analytical Report on the calculation of economic indicators in the creative sector. The dynamics of the volume of gross income from operating activities, taking into account subsidies for production in the theatre and concert industry, is shown in Figure 1. The data in the graph indicates that after two years of relative stagnation caused by the beginning of the war and the temporary occupation of part of Ukrainian lands in 2014, there was a recovery of economic indicators, and the effectiveness of theatre and concert activities increased almost threefold to 1.8 billion UAH. Another important indicator of the industry's development is the number of employees working in it. According to the data of the Directorate of Creative Industries of the Ministry of Culture of Ukraine (2018), this indicator was also on a positive trend in “pre-COVID” Ukraine (Fig. 2). To understand not just the literal number of staff but the effectiveness of their work, it is important to include another indicator – expenditure on personnel for business entities (Fig. 3).

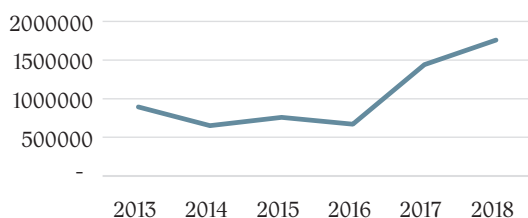


Figure 1. Added value by production costs in the theatre and concert sector, thousands of UAH

Source: compiled by the author based on data Directorate of creative industries of the Ministry of Culture of Ukraine (2018)

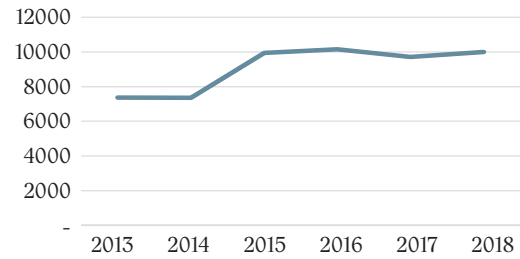


Figure 2. Number of employed theatre and concert workers in Ukraine

Source: compiled by the author based on data Directorate of creative industries of the Ministry of Culture of Ukraine (2018)

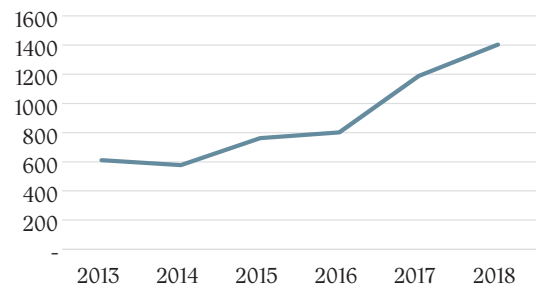


Figure 3. Expenditure on personnel for theatrical and concert sector entities, million UAH

Source: compiled by the author based on data Directorate of creative industries of the Ministry of Culture of Ukraine (2018)

It is worth noting that according to the graphical indicators, although the number of employees (Fig. 2) fluctuated within the margin of statistical error during 2015–2018, expenditure on personnel (Fig. 3) showed a significant upward trend. Thus, with a nearly static quantitative indicator of theatre workers, the wage fund increased significantly, and accordingly, the efficiency of their work.

The COVID-19 pandemic and associated quarantine restrictions significantly impacted all spheres of human activity, but the cultural and mass sectors suffered the most, leading to the suspension or even closure of a number of theatres. However, the full-scale military invasion in February 2022 dealt an even greater blow to Ukrainian culture. According to official data from the Official website of the Ministry of Culture and Information Policy of Ukraine (2024), as of March 2024, in just two years, the enemy had damaged and destroyed 1946 cultural infrastructure facilities, including 38 theatres, cinemas, and philharmonics. Notably, the Theatre.Com.Ua website still lists the Donetsk Academic Regional Drama Theatre of Mariupol and mentions its own festival “Theatrical Gate”, held in 2019, despite the theatre’s destruction by occupiers in 2022 being one of the most well-known crimes against the civilian population. Thus, Ukraine’s theatre industry has suffered significant losses, which has significantly affected its economic indicators.

To survive and maintain their functionality, a significant number of theatres relocated from temporarily

occupied territories or regions close to the frontline. Lviv, as the largest city in Western Ukraine with established theatrical traditions, attracted the attention of many troupes that were forced to flee the war. Moreover, Lviv theatres immediately responded to the full-scale invasion and adjusted their repertoire to the new realities. For example, just a month after the start of the war, in late March 2022, the Varta theatre presented the premiere of "The First Day of the War", and in the summer, the large stage of the Lesya Ukrainka Lviv Academic Drama Theatre hosted the premiere of Dmytro Zakhochenko's topical play-concert "Imperium Delendum Est". The new art space Jam Factory also included contemporary theatrical projects by young playwrights in its repertoire. All this demonstrates the ability of the Lviv theatre school to combine classical works with the most pressing challenges of the modern world, making it extremely effective and, accordingly, allowing it to gain economic benefit even in the face of difficult challenges.

Returning to the issue of relocants, one notable figure from the Kharkiv academic school who found refuge in Lviv during the great war is director Artem Vusyk. Thanks to him, the independent theatre Varta emerged in Lviv in 2022, bringing together artists who were forced to move to Lviv due to the war. Another Kharkiv team, the authors of the Parade Fest, published the collection "Anthology 24", consisting of dramatic texts about the war, created after February 24, 2022. Several texts from the "Anthology" were later presented on the stage of the Lesya Ukrainka Theatre in the format of staged readings. These topical projects had a noticeable economic effect and financially stimulated their participants.

The Luhansk Regional Ukrainian Academic Music and Drama Theatre was forced to relocate twice – after the beginning of the occupation of Luhansk in 2014, the troupe, preserving its own effectiveness and ability to work, moved to Severodonetsk, and in 2022, with the enemy approaching, relocated further West, to Sumy. By staging 6–7 of their own performances per month, the Luhansk Theatre in Sumy was able to return, at least, to the break-even point, resumed touring activities, and is building economic calculations for the restoration of the destroyed theatre in Severodonetsk after the victory and de-occupation.

When evaluating the effectiveness of Ukrainian theatre, it should also consider the paradox that occurred with institutions that remained in occupied Crimea. Unlike other regions where buildings were destroyed by tanks and bombs of the occupiers, Crimean theatres did not suffer from the hybrid annexation of 2014 and continued their work under the occupation authorities. All nine professional theatres with their own troupes, repertoire, and stationary stage continue to operate in Simferopol, Yevpatoriia, and Sevastopol. For ten years now, they have been operating at the expense of the occupying country, staging performances and promoting anti-Ukrainian values. It is crucial to recognise that after de-occupation, the question of returning these institutions to the Ukrainian cultural space will be very challenging.

To protect Ukrainian culture at all levels – mental, economic, and physical – and to avoid repeating the mistakes of Crimea, where a hybrid attack on the native language and national cultural codes was supported for decades, significant changes are taking place in the theatrical environment. Classic works from the occupying country have been removed from repertoires, the Ukrainian language environment has been fully restored, and theatres that bore the mention of an enemy state have been renamed. Besides the purely moral sense of justice, these changes have also affected the economic efficiency of the theatrical institutions – since the beginning of the full-scale aggression, in the consciousness of the average Ukrainian theatregoer, the works and language of the occupier have been moved to the marginal plane, and they are no longer willing to pay money for such a dubious cultural product.

A separate dimension of art monetisation is the spread of NFTs (Non-Fungible Tokens) products in Ukraine in the early 2020s. Such digital assets, which can be, for example, images of characters from performances, serve three important functions at once: they add an economic dimension to an art object, act as a voice for Ukrainian interests, and turn into a chronicle of contemporary art (Official website of Binance, 2022). The Ukrainian charitable NFT project "Meta History: Museum of War" (2024), with the support of the Ministry of Digital Transformation of Ukraine, accumulates art objects depicting the war and funds the restoration of cultural monuments.

Changes in key economic indicators of theatres in the years before the war and immediately after its beginning can be traced using the example of the Statistics of municipal cultural institutions of Lviv City Council (2022), in particular, such cultural institutions as the First Academic Ukrainian Theatre for Children and Youth, The Voskresinnia Lviv Academic Theatre, Les Kurbas Lviv Academic Theatre, Lesya Ukrainka Lviv Academic Drama Theatre, Lviv Theatre of Variety Miniatures "Both People and Puppets", and Lviv Municipal Theatre, Art Research and Educational Center "Word and Voice". The total number of performances changed as follows: in 2018, the mentioned institutions performed 731 performances, in 2020 – almost 1200, in 2021 – 752 performances, and in 2022 – 673. Accordingly, the full-scale war did not have a critical impact on the Lviv theatre community. Another important indicator of a theatre's effectiveness, the number of spectators per year, is also on an upward trend for the six mentioned municipal institutions. If in 2019 the total number of spectators was less than 10 thousand, then in 2020 this number increased to almost 25 thousand, in 2021 – to 29 thousand, and in the crisis year of 2022, the number of spectators per year increased to 47 thousand. These indicators demonstrate, firstly, the effectiveness of the theatres' work even in the conditions of a pandemic and war, and secondly, the society's demand for art. After all, the more difficult the situation is, the greater people's desire to escape from reality, switch to art, and experience catharsis.

As reported by the Official portal of Kyiv City State Administration (2023), the capital, even under martial law, managed not only to maintain the operation of theatrical institutions but also to establish an effective management system. During the crisis and extremely challenging year of 2022, municipal theatres presented 57 premieres to the residents and visitors of Kyiv and showcased over 2500 paid performances to 256000 spectators. Separately, 79 charity performances were also demonstrated, which were attended by almost 11 thousand people.

When transitioning on to the practical calculation of a theatre's economic efficiency, it is worth applying the same principles as for analysing the efficiency of any enterprise. Following the specifics of intangible production, it is necessary to develop a certain scale of measurement, a unit of a conditional product, thanks to which it is possible to compare institutions with different numbers of actors, stages, and performances. Such a unit is one spectator seat – a unit of product (UP) that theatres sell. In addition, each theatre has such physically limited constant indicators as the maximum amount of product (MP) sold per year (i.e., the number of working days multiplied by the number of seats in the hall) and the maximum annual income MI (the number of products per year multiplied by the average ticket price).

Thus, the Sales Efficiency indicator (Es) can be calculated, which is the ratio of the actual amount of product sold (AS) to the maximum amount of product (MP):

$$Es = AS/MP. \quad (1)$$

At the same time, another important index, Cost of Goods (Cg), is calculated as the ratio of total annual capital investments (AC) to MP per year:

$$Cg = AC/MP. \quad (2)$$

Since the lower the cost price, the higher the efficiency, the difference between the average price (AP) and the (Cg) is an indicator of another universal calculation index – Value Efficiency (Ev):

$$Ev = AP - Cg/100. \quad (3)$$

To prevent situations where a theatre actor, having performed in only 10–15 performances a year and worked 40 actual hours, receives a full salary, it is worth paying attention to the workload of the staff. Since the average workload of the troupe should be a measure of efficiency, the calculation requires multiplying the number of actors by the number of working hours per year to determine the workload standard in man-hours (MH). Thus, if the sum of the hours worked by all actors per year is the actual workload of the troupe (AW), then the Efficiency of Workload (Ew) will be equal to:

$$Ew = AW/MH. \quad (4)$$

Another key indicator of efficiency, reflecting labour costs per unit of product, is Labour Intensity (LI):

$$LI = MH/UP. \quad (5)$$

All calculated indices are fundamental for assessing the efficiency and competitiveness of theatres. They provide a sufficiently complete and objective picture, as they cover such diverse aspects of theatre operations as ticket sales, profitability, expenses, as well as the workload of employees and stages. By evaluating theatres using these indices, it is possible to conduct a comparative analysis of different institutions and determine their effectiveness in various aspects. These economic indicators, in combination with the indicators of effectiveness studied above, such as the elasticity of the repertoire and the ability to quickly adapt to external challenges, will be useful in the post-war reconstruction of the industry.

The concept of theatre effectiveness encompasses several fundamental components. There are purely economic parameters that demonstrate the institution's ability to cover its costs and generate a certain profit. There is also a measure of effectiveness that reveals deeper aspects – such as the ability to influence society, the desire and ability to reflect topical issues and to evoke an emotional response in the audience.

DISCUSSION

The global scientific literature has attempted to find answers to each of these questions. For instance, C. Castiglione *et al.* (2023), investigating the enhancement of efficiency and productivity in the performing arts across eleven European countries using a stochastic frontier approach, demonstrated that overall theatre productivity in the European Union countries increased over the studied period. At the same time, technological changes in the industry demonstrate either a minimal level or zero level. S. Greer (2021), who studied the UK's policy on financing artistic events, emphasised the advantages of a “mixed cultural economy” in which the combination of government grants, earned income, and private sponsorship is called the key to sustainable growth. These observations are important for understanding the general European trend, but they are difficult to extrapolate to Ukraine, where martial law is in effect.

Research by S. Rathje *et al.* (2021) has proven that attending live theatre improves empathy and makes the audience's behaviour more pro-social. During their field studies, the authors recorded an increase in charitable donations among citizens who attended a performance, compared to a control group whose members had not been to the theatre for a long time. In the Ukrainian context, this indirect economic indicator should also be taken into account and used to increase donations to the Armed Forces of Ukraine (AFU).

The activities of traditional theatres with their standard ticket sales mechanics, whose efficiency indices were

derived above, are relatively familiar for evaluation. The complex process is to calculate the efficiency of non-commercial and social theatres. A. FitzGibbon (2021), who researched the effectiveness of management in such institutions, notes a large number of stakeholders in the field of non-commercial performing arts – such as government bodies, private investors, marketers, and both full-time and freelance workforce. According to the obtained data, the author believes that it is the social theatre that is the vanguard of change in the modern management of non-profit organisations.

The COVID-19 pandemic and associated quarantine restrictions have significantly impacted the performing arts industry worldwide. Theatres were forced to either close to avoid losses or transition to a digital format. This transformation, according to some experts, had an apocalyptic undertone in 2020 – because in the first months of the pandemic, no one knew how long such “remote art” would remain relevant. Although A. Shipman & A. Vogel (2024) believed that when cultural events go online, the “chemistry” between the actor and the audience is lost, from an economic standpoint, selling tickets for remote access proved to be a worthy alternative to closing theatres. L. Bissell (2023) also wrote about the effectiveness of performances during the pandemic. Her research on cultural events in Germany, Poland, and the United Kingdom illustrated the economic effectiveness of events not only when transitioning to digital platforms but also in outdoor venues.

However, from an economic standpoint, the forced pandemic innovations had their advantages – the number of viewers at such a “virtual” performance is almost unlimited, and thus the effectiveness of this format compared to traditional, in-person performances increases exponentially. M. Pietrzak-Franger *et al.* (2023), using the example of the British theatre, proved that although the quarantine affected the usual liveliness of performances, it instead attracted a large number of new adherents to the ranks of theatregoers. The initiative “National Theatre at Home”, which allowed viewers to watch performances for free via YouTube, opened the theatre to a new audience, who after the end of the restrictions began to attend performances offline. According to the statistical data of Lviv theatres of that period, which was noted in the study, COVID-19 did not have a powerful impact on the number of performances or viewers, in particular thanks to technological solutions.

The full-scale war in Ukraine has also not escaped the attention of foreign arts researchers. For example, S. Graf (2024) in their article dedicated to the work of the Meta History: Museum of War project, explores how the museum uses NFT tokens to accumulate additional sources of funding for the restoration of Ukrainian theatres. As E. Olzacka (2024) noted, the development of Ukrainian cultural policy was also facilitated by radically reformed or even newly created institutions – the

Ukrainian Cultural Foundation (2024), the State Agency of Ukraine for Arts and Art Education, and the National Union of Theatre Artists of Ukraine. All of them contributed to strengthening the self-consciousness of Ukrainians as a political community and mobilised them to fight for the integrity of the Ukrainian state. Moreover, it was this that contributed to the recognition of Ukrainian culture as independent from Russian, which was crucial for obtaining financial international support after February 2022.

Regarding the problems that traditional theatre faces with demand from the younger target audience, W.J. Wesels (2021) has written. As the author managed to prove, the decision of the youth segment to purchase theatre tickets is highly dependent on opinion leaders and social media. Accordingly, to increase the effectiveness of the theatre’s influence on young people and stimulate their financial contributions to the industry’s economy, it is necessary to connect marketing mechanisms with the involvement of authoritative trendsetters.

Returning to the specifics of the purely financial efficiency of the theatre industry, it is worth mentioning the Italian experience of state subsidising the culture sector. C. Castiglione *et al.* (2024) proved that the impact of state funds on the technical efficiency of theatre firms is positive and significant, and the profitability of subsidies in this area reaches, on average, 90%. This information to some extent intersects with the data of the Ukrainian MCIP, according to which the volume of gross income of theatres from operating activities, taking into account subsidies, had a positive trend.

K. Smolny & M. Galecka (2021) investigated the relationship between productivity and labour costs using the example of public theatres in Poland. The authors found that the growth of productivity of troupe members directly depends on labour costs, in particular – overtime pay. This fact is confirmed by the calculation of the Efficiency of Workload carried out in this study.

The topic of increasing the effectiveness of theatrical activities through the integration of cutting-edge technical solutions was explored by Y. Bai *et al.* (2023). Their project “Smart Theatre”, which includes the functions of intelligent building management and creates a new ideology of scientific and technical servicing of the performing arts, deserves attention and has all the prospects for implementation in Ukraine in the process of post-war reconstruction. Another innovative approach in the performing arts that should be adopted in the future is crowdfunding. S. Handke & C.D. Chiesa (2022), who considered this increasingly popular means of attracting investments in the context of financing theatrical activities, concluded that this method of accumulating funds, among other things, contributes to the popularisation of culture among young people. Accordingly, this approach should also be taken into account when planning the financing of future Ukrainian art projects.

CONCLUSIONS

Despite the powerful development of modern technologies, theatre remains a sought-after genre of art and one of the few artistic forms where the viewer has the opportunity for live communication and experiencing emotions in real-time. Ukrainian theatre has demonstrated stable performance indicators both in terms of the number of theatres, the number of employees and their incomes, as well as the total economic gross income from operational activities.

The COVID-19 pandemic, which temporarily forced performances into an online mode, did not ruin the theatre industry. On the contrary, it fuelled interest in traditional art and helped attract new audiences after the lifting of quarantine restrictions.

However, it was the Ukrainian theatre, its traditions, heritage, and tangible and intangible assets that faced additional, even more complex challenges – with the beginning of the war in 2014 and, subsequently, its full-scale phase in 2022. The performing arts industry, like the country as a whole, managed to withstand the first, most difficult months of the invasion and find new artistic means and approaches. A number of theatres that were relocated from dangerous and occupied areas were able to resume their activities at new venues and continue their effective work. In this case, by effectiveness, means not only the ability to generate financial profit but also the therapeutic

work of restoring the mental health of people affected by the war, primarily young people.

Even though the majority of young people remain a “challenging” audience and require additional persuasion to attend live performances, contemporary theatres are finding ways to encourage them and are demonstrating their effectiveness in this direction.

Regarding the calculation of purely financial indicators, it is worth using a universal unit of goods – a spectator seat – thanks to which it is possible to compare the economic parameters of different theatres with different repertoire densities, troupe compositions, and price categories. In this case, the most informative indices are Sales Efficiency, Cost of Goods, Value Efficiency, Efficiency of Workload, and Labour Intensity. To improve these indicators, it is necessary to employ a full range of modern marketing technologies, without waiting for the end of the war and post-war recovery. A complex of such advertising measures for the additional popularisation of Ukrainian theatre, which will affect its popularity and attract a new audience, can be the topic of the next study.

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CONFLICT OF INTEREST

None.

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Андрій Білоус

Заслужений діяч мистецтв України, доцент

Київський національний університет театру, кіно і телебачення ім. І. К. Карпенка-Карого

01054, вул. Ярославів Вал, 40, м. Київ, Україна

<https://orcid.org/0009-0004-8232-6326>

Розрахунок ефективності театру

Анотація. Театр, що веде свій початок ще з античних часів, у XXI столітті вимушений конкурувати з більш сучасними та технологічними розвагами. Відповідно, питання затребуваності жанру, його ефективності – як ментальної, так і економічної – є досить актуальними. Для українського театру, що зіштовхнувся з викликами повномасштабного вторгнення, тема ефективності є ще більш значущою. Мета даної роботи полягає у визначенні основних індексів для оцінювання ефективності театрів шляхом аналізу ключових показників ефективності та фінансових аспектів управління закладом. Завдяки таким методам як статистичний аналіз, порівняння, синтез та прогнозування, було проведено дослідження актуального стану галузі та її економічних показників. В результаті дослідження було доведено зростання індикаторів валового доходу, кількості працівників та витрат на персонал протягом 2015–2018 років в українських театрах, а також оцінено вплив COVID-19 на діяльність закладів на прикладі Львову. Окремо було досліджено вплив війни на діяльність галузі, оцінено помилки, зроблені кримськими театрами під час тимчасової окупації, а також проведено аналіз репертуару релокованих закладів на нових сценах. Також було розроблено уніфіковану систему порівняння економічних показників різних об'єктів сценічного мистецтва, що має за основу таку універсальну одиницю виміру товару як одне глядацьке місце. Практична значимість дослідження полягає в створенні комплексу економічних індексів ефективності – продажів, вартості, завантаженості трупи тощо – які можуть бути корисні для профільних міністерств та відомств під час розрахунків фактичних фінансових показників та планування

Ключові слова: сценічне мистецтво; креативна індустрія; економіка; благодійні вистави; продаж квитків