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## ANALYSIS OF THE IMPACT OF WAR ON THE RESTAURANT INDUSTRY IN UKRAINE

## АНАЛІЗ ВПЛИВУ ВІЙНИ НА ЗАКЛАДИ РЕСТОРАННОГО ГОСПОДАРСТВА В УКРАЇНІ

This article examines and analyzes the statistics on the development of restaurant enterprises in Ukraine during the war, and presents innovative approaches to transformations that have occurred due to extraordinary events. Innovation, by definition, implies novelty, a recent change, or invention. Therefore, in this work, innovative approaches refer to the innovations introduced to enhance the resilience of the restaurant industry in Ukraine. To characterize and determine these changes, the operation of restaurant establishments was analyzed over the specified period 2020–2023 and indicators that affect the activity of restaurant establishments were identified. The impact of the state of emergency (war) on the functioning of public catering establishments was analyzed. It was determined that the war could have a significant impact on the restaurant industry in Ukraine on several levels: economic impact – the armed conflict can lead to a decrease in the purchasing power of the population due to reduced wages, unemployment, and a general economic downturn; security -military actions can complicate the operation of restaurants due to restricted access to certain areas or increased security threats for both staff and customers; supply – the war can disrupt supply chains, especially if restaurants rely on imported products, which can lead to increased food prices or even shortages; tourism – the war can deter tourists from visiting the country, leading to a reduction in the number of clients in restaurants, particularly in tourist locations. Innovative approaches and solutions that positively affect the stability of restaurant establishments in Ukraine were analyzed and systematized. Recommendations were developed to enhance the resilience of restaurant establishments during force majeure and emergency situations. Analyzing the transformations and the implemented innovative approaches in the restaurant sector of Ukraine is important for understanding the dynamics of changes and gaining experience for potential further adaptation to extraordinary conditions.

Keywords: adaptation, war, innovative approaches, restaurant establishments, COVID-19 pandemic.

У статті розглянуто тенденції розвитку підприємств ресторанного господарства в Україні під час війни та наведено інноваційні підходи до трансформацій, які відбулись через надзвичайні події. Інновація за визначенням – нововведення, новітня зміна чи винахід. Тож інноваційними підходами є нововведення, які були запроваджені для підвишення стійкості закладів ресторанного господарства в Україні. Для характеристики та визначення даних змін було проаналізовано роботу закладів ресторанного господарства упродовж 2020–2023 років та визначено показники, що впливають на діяльність закладів ресторанного господарства. Проаналізовано вплив надзвичайного стану (війна) на функціювання закладів громадського харчування. Визначено, що війна може мати значний вплив на заклади ресторанного господарства в Україні на кількох рівнях: економічний вплив – збройний конфлікт може призвести до зниження купівельної спроможності населення через зменшення заробітної плати, безробіття та загальний економічний спад; безпека – військові дії можуть ускладнити роботу ресторанів через обмеження доступу до певних районів або підвищення рівня загрози для безпеки як персоналу, так і клієнтів; постачання – воєнний конфлікт може порушити ланцюжки постачання, особливо якщо ресторани залежать від імпорту продуктів і це може призвести до зростання цін на продукти харчування або навіть до їх дефіциту; туризм – війна може відлякувати туристів від відвідування країни, що призводить до зменшення кількості клієнтів у ресторанах, особливо в туристичних місцях. Проаналізовано та систематизовано інноваційні підходи та рішення, які позитивно впливають на стабільність роботи закладів ресторанного господарства в Україні. Розроблено рекомендації щодо підвищення стійкості закладів ресторанного господарства під час форс-мажорів та надзвичайних ситуацій. Аналіз трансформації та впроваджених інноваційних підходів в роботу ресторанної сфери України важливий для розуміння динаміки змін та отримання досвіду для потенційної подальшої адаптації до надзвичайних умов.

Ключові слова: адаптація, війна, інноваційні підходи, заклади ресторанного господарства, пандемія COVID-19.

On the morning of February 24, 2022, russia attacked Ukraine, initiating a war. This led to the cessation of normal life throughout the country. On that day, stores, shopping centers, and restaurants across all cities were closed. Not all establishments were operational. Mostly, people stayed at home, or rushed to gas stations to stock up on gasoline, or to ATMs to withdraw money. The services of public catering establishments were not needed. Most establishments reopened their doors two to three days after the start of the full-scale invasion, but they faced many challenges, which they had to learn to adapt to since then.

**Problem statement.** The restaurant industry has the propensity to quickly adapt to changes and transform to prevent bankruptcy and reduce the impacts of crises. According to the definition, transformation is the changes or conversions of anything. During operation in conditions of uncertainty, transformations that were temporary were introduced. The factors of change are predominantly related to political and economic factors, over which restaurant industry has no leverage, therefore, to enhance the resilience of the restaurant industry, establishments were compelled to seek ways of transformation under the existing extraordinary circumstances.

Analysis of recent research and publications. The impact of the war on the restaurant industry in contemporary conditions has been studied by domestic scholars such as A. Brytvyenko, S. Bryhina [1], O. Kamushkov, T. Kuklina, O. Korniyenko [4], D. Kondratyev, G. Krul, D. Mykhailov, T. Nezveshchuk-Kohut, V. Tkach, S. Tsviliy, O. Yudina, and others.

The purpose of this article is to identify the problems of the restaurant business and find ways to enhance the resilience of restaurant establishments in Ukraine under emergency conditions.

**Presentation of main material.** Under the conditions of martial law, the operation of restaurant establishments is unstable [7]. Many factors influence the operation of these establishments, such as location. If a restaurant establishment is located in a temporarily occupied territory, it suffers greater damage, and its operation is neither stable nor profitable. If an establishment is located in a free territory, its operation is influenced by factors such as population migration, proximity to the border with occupied territories, frequency of shelling, and consequently air raids, disruptions in water and power supply, availability of communication, and others. If the establishment is located in the western part of Ukraine, where life is more tranquil than in the east, there are more people visiting public catering establishments, and the situation with water and power supply is more stable. However, these establishments also face many difficulties, such as increased rent.

Depending on the city, the statistics of open establishments varied [8]. Based on information about the percentage of operational establishments by regions in Ukraine as of March 19, 2022, Table 1 has been compiled.

Based on the available statistics, it can be concluded that in regions far from the active frontline, the attendance at establishments was higher, whereas in those located in or near combat zones, the attendance rate sharply declined. According to the study [8], as of March 24, 2022, compared to the pre-war period, 38% of users had resumed their operations. The study was based on more than 9,000 establishments that are clients of the Poster company.

By April 20, 2022, the situation had improved [9]: 41% of public catering enterprises were operational in the Kyiv region, and 40% in Kyiv itself. This change was influenced by the liberation of northern Ukraine from the occupiers at the beginning of April.

Particularly, the number of open establishments increased in all regions of Ukraine, except the East. The largest improvements were observed in the Zakarpattia region, where 86% of establishments were operational on April 20, 2023, compared to the pre-war statistics. In

Table 1

Percentage of Operational Establishments in Ukrainian Regions as of 19.03.2022				
The regions located far from the front line	% of operating establishments	Regions in the combat zone	% of operating establishments	
Transcarpathian region	84	Kyiv region	16	
Chernivtsi region	77	city of Kyiv	18	
Ternopil region	73	Chernihiv region	1	
Khmelnytsky region	75	Sumy region	16	
Ivano-Frankivsk region	72	Kharkiv region	16	
Lviv region	69	Luhansk region	0	
Mykolaiv region	16	Kherson region	24	

Percentage of Operational Establishments in Ukrainian Regions as of 19.03.20

Source: developed by the author based on [8]

from February 14-20, 2022, to February 13-19, 2023 (operational establishments)				
Region	Deviation in the number of transactions, %.	Region	Deviation in the number of transactions, %.	
Chernihiv region	-4	Luhansk region	-24	
Chernivtsi region	+14	Kirovograd region	+16	
Cherkasy region	+9	Kyiv region	-20	
Khmelnytsky region	+11	city of Kyiv	-15	
Kherson region	-62	Ivano-Frankivsk region	0	
Kharkiv region	-45	Zaporizhzhya region	-30	
Ternopil region	-4	Transcarpathian region	+17	
Sumy region	-13	Zhytomyr region	+7	
Rivne region	+4	Donetsk region	-30	
Poltava region	+3	Dnipropetrovsk region	-16	
Odesa region	-7	Volyn region	+6	
Mykolaiv region	-27	Vinnytsia region	+1	
Lviv region	+25	Autonomous Republic of Crimea*	-	

Dynamics of Transactions in Public Catering Establishments om February 14-20, 2022, to February 13-19, 2023 (operational establishments)

Source: developed by the author based on [2]

Khmelnytskyi, 83% of establishments were operational; in Chernivtsi, 81%; and in Lviv region, 79%. The lowest figures were in the Eastern regions: 9% in Kharkiv, 5% in Donetsk, and 0% in Luhansk.

Let's examine these indicators of transactions for the same period before and after the beginning of the fullscale invasion. Based on the available data, it can be noted that while the number of sales fell in the East of the country, it rose in the West.

Reviewing the map of military operations at that time [10], one can conclude that these changes occur depending on the proximity of establishments to the sites of military action. Based on this observation, we can note that the security factor has a very significant impact on the operation of public catering establishments (PCAs).

The war in Ukraine has caused a very serious humanitarian crisis, leading to both internal (within the country) and external (abroad) displacement of the population. According to a report on internal displacement in Ukraine by IOM [6], during the period from January 16 to January 23, 2023, the estimate of internally displaced persons reached 5,352,000 individuals.

Table 3
Statistics on the Number of Internally Displaced
Persons in Ukraine

Macro-regions	Number of internally displaced persons	
East	1964000	
Center	928000	
West	863000	
North	604000	
Kyiv	497000	
South	496000	

Source: developed by the author based on [5; 6]

In Table 3, the statistics regarding the number of internally displaced persons are presented.

Moreover, potential PCA customers are also leaving for abroad. According to Dmytro Lubinets, the Human Rights Ombudsman in the Verkhovna Rada, 14.5 million Ukrainians have left the country's territory [5].

Based on the available statistical information, it can be concluded that the migration of the population is most acutely felt in the East and the center of the country. This factor leads to a decrease in the attendance of public catering establishments (PCAs) in parts of the country that are close to the aggressor country and those that have been occupied or are places of active conflict. Consequently, we can understand that there is a change in the attendance of restaurant establishments. All these changes lead to an increase in the number of visitors to restaurant establishments in Western Ukraine.

Data on revenue from small and medium-sized establishments also indicate an increase in the number of

Table 4

Table 2

Revenue of Small and Medium-Sized Establishments in May 2022 Relative to the Pre-War Period

to the Pre-war Period			
Percentage relative to pre-war time, %			
152			
124			
119			
115			
106			
105			
103			
102			
102			

Source: developed by the author based on [3]

visitors (Table 4). For comparative analysis, data before the full-scale war (February 14-20, 2022) were used along with a week in May 2022 (May 16-22) [3].

As people moved, restaurateurs who either relocated their business or opened new ones followed. These included forced migrants due to military actions in their cities, such as Daria and Stanislav Dmitriyev from Mariupol who opened the "Bluefin" restaurant in Lviv, as well as restaurateurs who recognized the increase in the number of potential visitors. For instance, the wellknown Ukrainian restaurateur Dmytro Borisov opened "The Last Barricade" in Lviv – a venue that has been operating for many years in Kyiv; another example is the restaurateur Alex Cooper, also a prominent figure, who opened "Shalom" in Lviv [1].

This demand has led to sharp increases in rental prices for premises. Due to a large number of businesses relocating to Lviv, the demand for commercial properties has risen. There is very high competition for suitable premises. The high cost of rent is also influenced by the fact that in Lviv, it is tied to the dollar rate, making the cost significantly higher compared to the time before the full-scale invasion.

The location of active military operations also affects how effectively an establishment can operate due to conditions affecting water and electricity supplies. Due to the constant terrorizing of Ukrainian cities with bombs and other types of attacks, electricity and water supplies are not constant. Thus, public catering establishments also face the challenge of adjusting their operations under such unstable conditions.

Meanwhile, new establishments continue to open in Ukraine. Throughout 2022, 106 public catering establishments opened in Kyiv.

An analysis of the problems faced by the restaurant industry during the full-scale war in Ukraine. The ongoing war in Ukraine has had serious consequences for the restaurant industry. The author has identified the following problems:

1. The conflict caused economic instability and reduced consumers' purchasing power, leading to a significant drop in client demand. People are more concerned about their basic needs, resulting in reduced spending on dining out.

2. Decreased attendance due to danger. The analysis in section 1.2 shows that in territories of Ukraine under occupation or near or in combat zones, the attendance of public catering establishments drops sharply compared to areas away from active combat. Thus, a problem with attendance depending on location within Ukraine has been identified.

3. The war created an atmosphere of fear and uncertainty. Restaurants in affected areas face security problems, including the risk of damage or destruction due to shelling or military operations. Security concerns deter clients from visiting restaurants, affecting business operations.

4. Air sirens and curfews also affect public catering establishment attendance. Due to the curfew, establishments are forced to limit their operating hours, leading to decreased revenue. This is particularly felt by bars and restaurants that typically have a high number of visitors in the latter part of the day.

5. The war disrupted transport routes and logistics, making it difficult to maintain a steady supply of raw materials.

6. In areas directly affected by the war, restaurants suffered physical infrastructure damage. Buildings, equipment, and facilities were destroyed or seriously damaged, requiring significant repairs or even closure.

7. Disruptions in city and territory life support systems (electricity, water, gas). Under conditions of power disconnection, it is very difficult for establishments to operate, as many appliances in such enterprises are powered by electricity. For example, in a coffee shop where the main service is coffee preparation, the stable operation of the coffee machine, which relies on electricity, is very important. Additionally, establishments face communication problems with guests, as landline phones and the internet, which are used for communication with clients and suppliers as well as management, do not work during power outages.

The absence of water supply significantly impacts the operations of establishments, particularly in the restaurant industry where sanitary safety is crucial. The lack of water makes it much more challenging to adhere to sanitation standards. This absence of basic operational necessities leads to reduced working hours and accelerated wear and tear of equipment. For instance, consider water filters, which are always present in high-end cafés; the disconnection of water supply causes filters to become contaminated more quickly, necessitating more frequent replacement. Additionally, the absence of water access causes coffee machines to fill their boilers with air, which alters the pressure and consequently, the quality of their operation.

8. The conflict has caused population displacement, with many people leaving affected regions. Restaurants face difficulties in retaining skilled staff as employees move to safer areas or seek alternative employment opportunities. This staff shortage impacts the overall operation and quality of service in restaurants.

9. The war has adversely affected the tourism industry in Ukraine. Many tourists avoid visiting conflict-affected areas for safety reasons. Restaurants, heavily reliant on tourist traffic, have experienced a sharp decline in visitors, exacerbating their financial difficulties.

10. Establishments in the restaurant industry located in conflict-affected areas may face challenges in accessing state support and financial aid due to the overall strain on resources and prioritization of other urgent needs during the war. The lack of support further complicates their ability to overcome the difficulties they face.

It is important to note that the problems vary depending on the specific location and proximity to the military demarcation zones. Eateries in regions less affected by the war may also encounter some of these issues due to the economic and social consequences of the conflict.

Based on the analyzed information, the most influential factors are the location of the establishments within Ukraine, infrastructure destruction, the country's economic condition, disruption of urban and regional life-support systems. The location within Ukraine is determined to be the most influential factor because it affects most other factors, namely: infrastructure destruction, disruption of life-support systems for cities and regions, changes in raw material prices and rent, logistics disruptions, population migration, curfews, and air raids. Infrastructure destruction ranks second because it can completely halt an establishment's operations and cause material losses (destruction of equipment, raw materials). The country's economic state affects logistics, the purchasing power of visitors, and the rise in prices of raw materials and rent (which is higher during the war compared to the COVID-19 conditions). Disruption of life-support systems for cities and regions affects an establishment's ability to operate or limits the number of possible services and products offered.

The analysis showed that during the times of the COVID-19 pandemic and the war, the restaurant industry found ways to adapt and transform to meet new industry challenges. Innovative solutions for adapting to COVID-19 may include: changes in business models to focus on delivery and takeaway services; new zoning of premises considering quarantine requirements for social distancing and maintaining seating capacity; collaboration with local farmers and suppliers to ensure uninterrupted logistics; increased online presence and active use of social media platforms; implementation of trendy approaches to sustainable consumption and ecologization.

Innovative solutions for increasing resilience during the war may include: collaboration with local charitable organizations and community groups; use of alternative sources of electricity and water supply; enhanced online marketing and engagement with social networks; menu adaptation to offer affordable and convenient food options suitable for delivery or takeaway; increasing focus on local residents rather than tourists; conducting charitable actions; optimizing the operation of establishments (enhancing staff efficiency, optimizing inventory management); improving delivery logistics; applying for available state support programs or subsidies.

**Conclusions.** The restaurant industry has undergone significant changes during 2020–2023 due to COVID-19 and the war. Overall, the food service industry has demonstrated its ability to quickly adapt and adjust to extraordinary conditions, although not all establishments have survived the crises.

It has been determined that during the war, delivery-focused establishments experienced the least impact from the quarantine, while restaurants and bars suffered the most. The number of visitors and revenue decreased compared to previous years. Low profitability led to staff reductions or complete closure of establishments, which increased the unemployment level in the restaurant sector. Major limiting factors for the profitability of food service establishments included: constant changes in legislation and restrictions on the operation of these establishments during quarantine; the emotional state of potential consumers who limited visits to crowded places due to fear of infection; the duration of enhanced quarantine measures; and the economic state of the country.

Analysis of statistical information has led to conclusions that during the war, the dynamics of visitation to food establishments sharply declined. Since the beginning of April 2022, the number of open establishments and attendance began to increase in all regions of Ukraine, except the East. It should be noted that in the Western part of the country, sales continue to grow, and new establishments are appearing. This is associated with internal migration of both potential visitors and employees and owners of food service establishments to safer regions, as well as the relocation of some establishments. Therefore, it can be concluded that safety is a significant factor affecting the operation of food service establishments. The farther the establishments are from the front line, the higher the attendance and profit, but simultaneously, the higher the rent. In addition, disrupted traditional logistics forces the search for new raw material suppliers. The operation of food service establishments is also affected by infrastructure damage, curfew, and the number of air raid alarms. Unfortunately, there are no effective solutions to the problems related to the war.

Further research in this area could focus on exploring more adaptive strategies for businesses to survive and possibly thrive under such challenging conditions, studying the long-term effects of these disruptions on the industry, and developing more robust frameworks for emergency response and business continuity in the face of crises.

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