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# FISCAL MECHANISM OF FINANCIAL SUPPORT FOR THE TOURISM SECTOR IN CONDITIONS OF MILITARY CHALLENGES

## ABSTRACT

The purpose of the article is to substantiate the fiscal mechanism of financial support for the tourism sector in the con-text of military challenges and to quantify its impact on the tax performance of regions. The empirical base was formed on the basis of open data on tax revenues of the tourism sector and the tourist tax by regions in 2021, 2023, and 2024. To assess regional differences, an integral index of the financial capacity of the tourism sector was constructed, which takes into account the recovery of tax revenues compared to the pre-war level, the dynamics of post-shock recovery, changes in the tourist tax, the share of the tourist tax in total tax revenues, and the scale of the fiscal base of the region. To determine the impact of the main factors on the tax revenues of the tourism sector in 2024, a logarithmic regression model was constructed.

The results of the study showed that the financial recovery of the tourism sector has a pronounced regional character. The highest values of the integral index of financial capacity were formed by regions that combine a significant pre-war fiscal base, positive dynamics of the tourist tax, and a lower depth of the war and financial shock. Regression modeling confirmed that the tax revenues of the tourism sector in 2024 depend most on the pre-war tax base, while the tourist tax has a positive but weaker impact. At the same time, the coefficient of military-financial shock has a significant negative impact, which confirms the need for targeted support for regions that have experienced the greatest reduction in tourism activity after the start of a full-scale war.

**Keywords:** tourism, financial support, fiscal mechanism, tourism fee, tax revenues, military challenges, integral index, regression modeling

**JEL Classification:** C13, C31, H71, L83

## INTRODUCTION

The tourism sector is one of those components of the national economy that are particularly sensitive to changes in the external environment. Its development depends not only on effective demand, transport accessibility, the state of hotel and recreational infrastructure, but also on the security situation, institutional support, the budgetary capacity of communities, tax administration, and the availability of financial instruments capable of ensuring the adaptation of business to crisis conditions. In the conditions of a full-scale war, the tourism sector of our country lost part of its traditional flows, faced with the destruction of infrastructure, a change in the geography of travel, a reduction in inbound tourism and an increase in risks for business entities. At the same time, it did not stop functioning, and in some regions even demonstrated new forms of adaptation related to domestic tourism, business trips, relocation processes, the sanatorium and health sector, and a change in the structure of demand. War threats and challenges have significantly changed the vision of financial support for the tourism sector. If in conditions of relative stability, the main attention was paid to marketing promotion of territories, development of tourist products and improvement of service quality, then under such conditions the issues of financial sustainability, ability of communities to accumulate tourist fees, support of small and medium-sized businesses, preservation of tax base, formation of investment incentives and attraction of funds for restoration of infra-structure come to the fore. Therefore, fiscal mechanisms of financial support of

tourism become not an auxiliary element, but a key condition for preserving the functionality of the sphere during the period of instability.

In this article, the fiscal mechanism of financial support for the tourism sector is understood as an interconnected system of public institutions and fiscal instruments that ensure the mobilisation, allocation and use of financial resources for tourism development, business adaptation and infrastructure recovery. Such a mechanism is not limited to taxation or tourist tax administration. It encompasses state support through budget programmes, subsidies, targeted transfers, compensation schemes and tax incentives, as well as local government support through municipal development programmes, local budget expenditures and co-financing of tourism projects. In addition, the mechanism includes public-private partnerships involving public financial participation in tourism infrastructure development.

In Ukraine, these components are represented by the State Agency for Tourism Development of Ukraine, national, regional and local tourism development programmes, tourist tax revenues, tax incentives for tourism-related activities, budget financing instruments, intergovernmental fiscal support measures, and public-private partnership projects in tourism infrastructure.

The empirical part of this article does not measure the fiscal mechanism in its entirety. Instead, it evaluates selected manifestations of its fiscal dimension through indicators such as tax revenues, tourist tax dynamics, regional recovery outcomes, and the magnitude of the war-related fiscal shock.

## LITERATURE REVIEW

The scientific discussion on financial support for tourism under wartime conditions has become particularly relevant after the beginning of Russia's full-scale invasion of Ukraine. Tomej et al. (2023) analysed tourism business resilience during the first months of the war and showed that tourism enterprises in Ukraine not only reduced their activity, but also searched for new forms of survival, reorientation and adaptation.

Gabryjończyk and Kudinova (2023) examined tourism in wartime Ukraine and emphasised that international tourism declined sharply, while domestic tourism continued to exist under numerous securities, territorial and logistical restrictions.

Zavarika and Zelenko (2024) focused on the organisation of tourism activities under martial law and highlighted the need to restore tourism in post-war territories, taking into account damaged infrastructure, security restrictions and the losses suffered by communities and businesses. These studies are directly relevant to the present research because they show that tourism in Ukraine during the war should be analysed not only as a market activity, but also as a sphere that requires institutional coordination and financial support.

A separate group of studies concerns the institutional and legal basis of tourism recovery in Ukraine. Babushko and Opasiuk (2023) substantiated the need to improve Ukrainian tourism legislation in the post-war period and emphasised that tourism recovery requires changes at the national and institutional levels.

Roik (2025) examined the institutional framework for resource provision in Ukraine's tourism sector and clarified the roles of government bodies, local authorities, private enterprises and destination management organisations in mobilising and allocating resources.

Trusova and Trusova (2025) showed that the legal and economic mechanisms of tourism development in Ukraine remain fragmented and require improved financial instruments, stronger institutional capacity and better interregional coordination. These works are important because they make it possible to interpret financial support for tourism not as a set of isolated fiscal measures, but as a fiscal mechanism involving different actors and resource channels.

The role of local communities and public-private partnerships is also essential for understanding the fiscal mechanism of financial support. Yermachenko et al. (2024) argued that sustainable tourism may become an instrument of post-war recovery of territorial communities and proposed a differentiated approach depending on the consequences of hostilities. Ghanem and Ghaley (2024) developed a resilience-based public-private partnership approach, which is relevant for destinations where public resources alone are insufficient for recovery.

Estiri et al. (2022) and Şengel et al. (2023) showed that the effectiveness of crisis support in tourism depends on the speed, targeting and combination of policy instruments, including fiscal, monetary and organisational measures. These conclusions support the view that financial support for tourism should combine budgetary resources, local financial capacity, private investment, credit instruments and institutional coordination.

## AIMS AND OBJECTIVES

The purpose of the article is to substantiate the fiscal mechanism of financial support for the tourism sector in conditions of military challenges and to quantitatively assess its fiscal dimension at the regional level.

To achieve this goal, the following tasks are envisaged:

1. To clarify the economic content of fiscal mechanisms of financial support for the tourism sector in conditions of military challenges.
2. To form a system of fiscal indicators characterising the tax efficiency of the tourism sector, the dynamics of the tourist tax, the level of regional recovery and the depth of the war-related fiscal shock.
3. To construct an integral index of fiscal support and recovery of the tourism sector based on normalized indicators of tax revenues and the tourist tax.
4. To conduct regression modelling of the impact of the pre-war fiscal base, local tourist tax and war-related fiscal shock on tax revenues of the tourism sector in 2024.
5. To substantiate differentiated fiscal support directions for regions with different levels of recovery, fiscal capacity and war-related losses.

## METHODS

The methodological basis of the study is formed on a combination of system-structural analysis, indicator approach, index assessment, statistical grouping, comparative analysis and regression modeling.

At the first stage of the study, the initial database was formed. It includes regional values of tax revenues from the tourism sector for 2021, 2023 and 2024, as well as the value of the tourism fee for 2023 and 2024. These indicators were chosen because they simultaneously characterize the overall fiscal performance of the tourism sector and the ability of the local level to accumulate financial resources from tourism activity. At the second stage, a system of derived indicators was calculated. The first indicator is the rate of recovery of tax revenues in 2024 compared to 2021 (1):

$$K^{21-24}_{\text{tax},i} = (\text{Tax}_{i,2024}) / (\text{Tax}_{i,2021}), \quad (1)$$

where  $\text{Tax}_{i,2024}$  denotes the tax revenues of the tourism sector of region  $i$  in 2024, and  $\text{Tax}_{i,2021}$  denotes the corresponding indicator in 2021.

The value of this coefficient above 1 indicates that the region has not only restored the pre-war level of tax revenues, but also exceeded it.

The second indicator is the short-term recovery rate of tax revenues in 2024 compared to 2023, calculated similarly to (1). The third indicator is the growth rate of the tourist tax (2):

$$K^{23-24}_{\text{fee},i} = (\text{Fee}_{i,2024}) / (\text{Fee}_{i,2023}), \quad (2)$$

where "Fee" denotes the tourist fee of region  $i$  in 2024 and 2023.

The war-related fiscal shock indicator was calculated as the relative decline in tourism sector tax revenues in 2023 compared with the pre-war level of 2021. It shows the depth of the loss of the regional fiscal base after the first full year of the full-scale war. If tax revenues in 2023 exceeded the 2021 level, the value of the shock indicator was set to zero, because no fiscal decline relative to the pre-war base was recorded. The indicator is calculated as follows:

$$\text{WFS}_i = \max(0; 1 - \text{Tax}_{i,2023} / \text{Tax}_{i,2021}).$$

The tourist fee in this study is considered an indicator of local tourist activity and the quality of financial flow administration at the community level.

At the third stage, an integral index of the financial capacity of the tourism sector of the regions was constructed. To ensure comparability, all indicators were normalized using the Min-Max method (3):

$$Z_{ij} = (X_{ij} - X_{j,\min}) / (X_{j,\max} - X_{j,\min}), \quad (3)$$

where  $Z_{ij}$  is the normalized value of indicator  $j$  for region  $i$ ,  $X_{ij}$  is the actual value of the indicator,  $X_{j,\min}$  and  $X_{j,\max}$  are the minimum and maximum values of the corresponding indicator among the regions.

The integral index is calculated as the arithmetic mean of the normalized components (4):

$$IFSR_i = 0.2Z_1 + 0.2Z_2 + 0.2Z_3 + 0.2Z_4 + 0.2Z_5, \quad (4)$$

where *IFSR* is the integral index of fiscal support and recovery of the tourism sector of region  $i$ ;  $Z_1$  - the normalized index of recovery of tax revenues 2024/2021;  $Z_2$  - the normalized index of recovery of tax revenues 2024/2023;  $Z_3$  - the normalized index of the tourist fee 2024/2023;  $Z_4$  - the normalized share of the tourist fee in tax revenues;  $Z_5$  - the normalized scale component of tax revenues in 2024.

At the fourth stage, regression modeling was applied. The dependent variable is the logarithm of tax revenues from the tourism sector in 2024. The independent variables are the logarithm of tax revenues in 2021, the logarithm of the tourism fee in 2024, and the coefficient of military-financial shock.

## RESULTS

The tourism sector under military challenges demonstrates heterogeneous fiscal dynamics, which creates the need to move from a general description of national tax revenues to a regional assessment of fiscal support and recovery. According to the State Agency for Tourism Development, in 2024 tourism entities transferred UAH 2,938 million in taxes to the budget, compared with UAH 2,049 million in 2023 and UAH 2,232 million in 2021. The largest share of tax revenues in 2024 was generated by hotels, which paid UAH 1,954 million, or 66.5% of total tourism sector tax revenues. Tax revenues from tour operators also increased in 2024 and amounted to UAH 304.7 million, compared with UAH 205.8 million in 2023. These figures show that the tourism sector not only experienced a wartime decline, but also formed a certain adaptive fiscal potential. At the same time, aggregate national indicators do not explain regional differences in fiscal recovery. In western and central regions, the financial activity of the tourism sector is supported by internal tourist flows, recreational resources, relatively lower security risks, and the ability of communities to administer the tourist tax. In southern and eastern regions, the consequences of the war-related shock remain more significant because of damaged tourism infrastructure, reduced numbers of business entities, restricted mobility and the weakening of traditional resort activity. Therefore, the empirical analysis should not be limited to total national tax revenues. It requires a regional calculation matrix that combines sectoral tax revenues and the tourist tax as measurable fiscal indicators of tourism recovery.

To quantitatively assess fiscal mechanisms of financial support for the tourism sector, indicators of tax revenues from tourism entities and the tourist tax were used. Tax revenues reflect the overall fiscal performance of the sector, while the tourist tax characterizes the ability of local communities to accumulate fiscal resources from tourism activity. For this reason, Table 1 presents regional data on tourism sector tax revenues for 2021, 2023 and 2024, as well as tourist tax revenues for 2023 and 2024. These indicators form the empirical basis for calculating the integral index of fiscal support and recovery and for further regression modelling.

**Table 1. Initial data for modelling the financial capacity of the tourism sector by region, UAH million.** (Source: State Statistics Service of Ukraine)

Region	Tax revenues 2021	Tax revenues 2023	Tax revenues 2024	Tourist tax 2023	Tourist tax 2024
Kyiv city	773.902	499.291	982.020	30.378	49.182
Lviv region	215.380	345.484	439.978	46.085	47.108
Ivano-Frankivsk region	131.955	138.842	248.469	20.408	33.099
Cherkasy region	22.994	20.675	34.205	21.574	23.532
Zakarpattia region	59.527	94.175	130.445	22.161	23.093
Dnipropetrovsk region	98.400	98.113	128.805	13.219	15.960
Vinnitsia region	27.394	29.948	41.303	3.897	5.453

(continued on next page)

**Table 1.** Continued.

Region	Tax revenues 2021	Tax revenues 2023	Tax revenues 2024	Tourist tax 2023	Tourist tax 2024
Poltava region	43.452	45.352	65.108	6.414	7.070
Kirovohrad region	15.185	15.819	22.340	1.633	1.871
Khmelnyskyi region	21.446	31.158	41.169	5.914	8.136
Ternopil region	17.347	19.639	27.519	1.548	1.986
Chernivtsi region	18.190	28.804	39.085	3.318	4.047
Volyn region	13.345	15.918	24.343	3.184	3.815
Rivne region	16.213	20.122	31.507	2.630	3.047
Odesa region	210.786	98.845	160.488	8.648	14.518
Mykolaiv region	45.926	21.685	25.616	0.897	1.536
Zaporizhzhia region	98.580	15.193	25.779	1.938	1.747

Table 1 does not include all regions of Ukraine. The selection was limited to regions for which all indicators required for the calculation were available and comparable for the selected years, namely tax revenues of the tourism sector for 2021, 2023 and 2024 and the tourist tax for 2023 and 2024. In addition, the war caused significant distortions in regional statistical comparability, especially in territories affected by active hostilities, temporary occupation, large-scale destruction of tourism infrastructure, forced business relocation and limited administrative capacity. Therefore, the table should not be interpreted as a complete ranking of all regions of Ukraine, but as a comparable sample for modelling the fiscal dimension of financial support and recovery of the tourism sector.

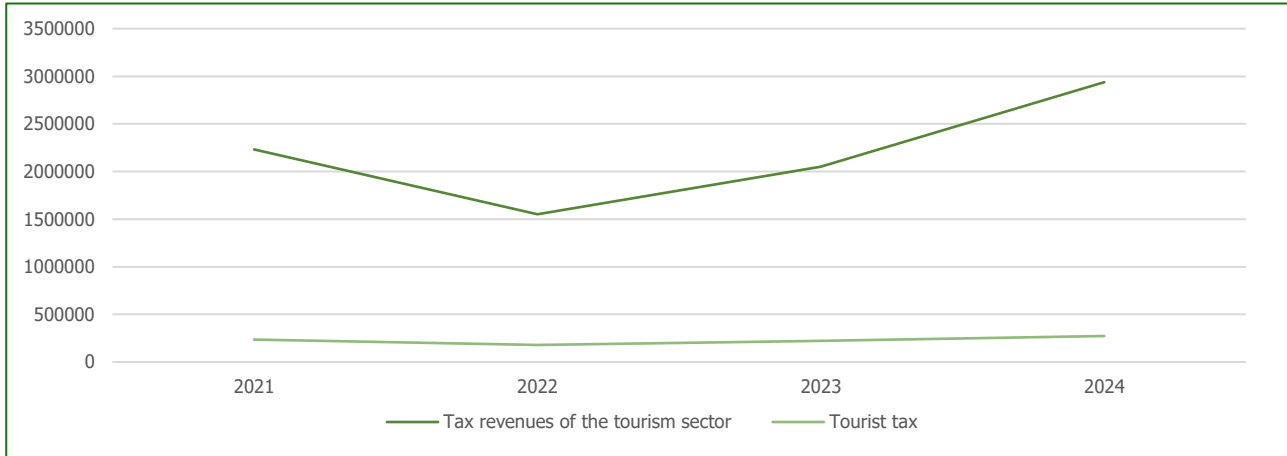
The year 2025 was not included in the empirical model because the study is based on complete annual and regionally comparable data (Table 1). At the stage of forming the calculation matrix, the empirical period was limited to the latest year for which a complete and internally verified regional dataset was used for all selected indicators, namely tax revenues from tourism entities and the tourist tax. The inclusion of 2025 would require a full reconstruction of the database, repeated normalization of all regional indicators, and re-estimation of the regression model, because even later-published aggregate or periodic information for 2025 is not automatically comparable with the closed annual matrix used for 2021, 2023 and 2024. Therefore, 2024 is treated as the terminal comparable year in this version of the study. After the publication and verification of a full annual regional matrix for 2025 according to the same indicators, the model can be updated by adding 2025 as a new observation period and recalculating the integral index and regression parameters.

To assess the financial capacity of the tourism sector of the regions, an integral index (4) is proposed, which includes five indicators. Table 2 shows that the highest values of the integral index were obtained by the city of Kyiv and the Ivano-Frankivsk region. In the first case, the result is explained by the high absolute scale of tax revenues and a strong recovery in 2024. In the second case, the combination of tax revenue growth, tourism fee growth, and the absence of a deep collapse in 2023 is important. Odesa region occupies a relatively high position due to a rapid recovery in 2024, although the shock coefficient remains significant. Zaporizhzhia region has the lowest value, which is explained by a critical drop in tax revenues in 2023 and weak dynamics of tourism fees in 2024 (Table 2).

**Table 2. Calculation of the integral index of financial capacity of the tourism sector.**

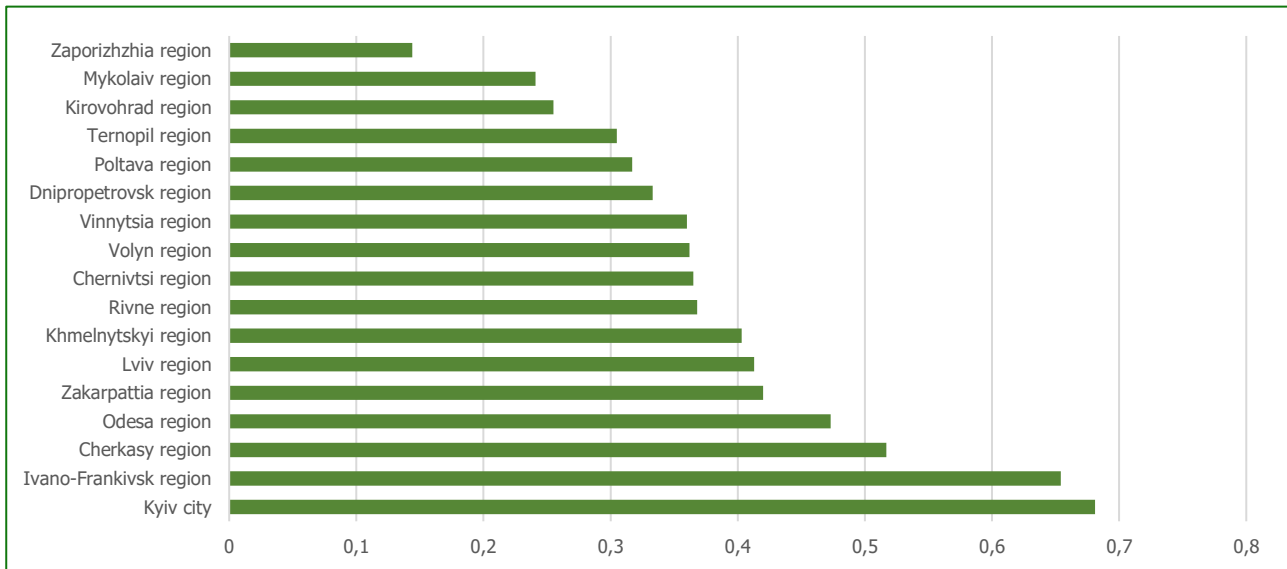
Region	Tax recovery index 2024/2021	Tax recovery index 2024/2023	Tourist tax index 2024/2023	War-related fiscal shock 2021–2023	Integral index
Kyiv city	1.269	1.967	1.619	0.355	0.681
Ivano-Frankivsk region	1.883	1.790	1.622	0.000	0.654
Cherkasy region	1.488	1.655	1.091	0.101	0.517
Odesa region	0.761	1.624	1.679	0.531	0.473
Zakarpattia region	2.191	1.385	1.042	0.000	0.420
Lviv region	2.043	1.274	1.022	0.000	0.413
Khmelnyskyi region	1.920	1.321	1.376	0.000	0.403
Rivne region	1.943	1.566	1.159	0.000	0.368
Chernivtsi region	2.149	1.357	1.220	0.000	0.365
Volyn region	1.824	1.529	1.198	0.000	0.362
Vinnysia region	1.508	1.379	1.399	0.000	0.360
Dnipropetrovsk region	1.309	1.313	1.207	0.003	0.333
Poltava region	1.498	1.435	1.102	0.000	0.317
Ternopil region	1.586	1.401	1.283	0.000	0.305
Kirovohrad region	1.471	1.412	1.146	0.000	0.255
Mykolaiv region	0.558	1.181	1.712	0.528	0.241
Zaporizhzhia region	0.262	1.697	0.901	0.846	0.144

Figure 1 shows the overall trajectory of the tourism sector's financial recovery. In 2022, there was a sharp decline in tax revenues, which was a direct result of the war shock, the reduction in the number of taxpayers, the destruction of tourism infrastructure, and the reorientation of demand. However, in 2023–2024, a gradual recovery is observed, and in 2024, tax revenues exceeded the pre-war level of 2021. The tourism tax also shows a recovery, although its scale remains significantly smaller compared to total tax revenues.



**Figure 1. Dynamics of financial revenues of the tourism sector, UAH million.**

Figure 2 confirms the spatial unevenness of financial support for the tourism sector. The leadership of Kyiv is explained by the concentration of taxpayers, a high level of business activity, and a significant amount of tourist tax. Ivano-Frankivsk, Lviv, Zakarpattia and Khmelnytskyi regions form a western vector of relative stability, which is associated with the reorientation of internal tourist flows. The southern and eastern regions have lower positions due to military risks, mobility restrictions, and the loss of part of the tourist potential (Figure 2).



**Figure 2. Financial capacity index of the tourism sector.**

To quantify the impact of basic financial capacity, local tourist tax, and war-financial shock on tourism tax revenues, a logarithmic regression model was constructed. Table 3 shows that the key factor in tourism tax revenues in 2024 remains the region's pre-war fiscal base. The coefficient of 0.962 means that a 1% increase in tax revenues in 2021 is associated with an increase in revenues in 2024 of approximately 0.96%. The coefficient for the tourism tax has a positive sign, confirming the relationship between the local ability to accumulate tourism payments and the overall fiscal performance of the sector. At the same time, its statistical significance is lower, which indicates the auxiliary nature of the tourism tax compared to the overall tax base. The most critical negative factor is the war-financial shock. An increase in this indicator by 0.1 points reduces the expected level of tax revenues by approximately 16–17%.

**Table 3. Results of regression modelling of tax revenues of the tourism sector in 2024.**

Variable	Coefficient	Economic interpretation
Constant	0.461	Basic level of the model
ln Tax revenues 2021	0.962	Strong dependence of current revenues on the pre-war fiscal base
ln Tourist tax 2024	0.119	Positive, but weaker effect of local tourist tax
War-related fiscal shock 2021–2023	-1.826	Strong negative effect of the wartime declines in 2023
R2	0.982	The model explains 98.2 % of the variation in the dependent variable
Adjusted R2	0.978	The model remains highly explanatory after adjustment for the number of factors

The results obtained give grounds to argue that fiscal mechanisms for financial support of the tourism sector in the context of military challenges have unequal effectiveness in the regional context. Tax revenues are restored more quickly in those regions where a strong fiscal base for tourism activity already existed before the full-scale war, as well as where local communities have retained the ability to administer the tourist tax. At the same time, the tourist tax itself cannot be considered as a self-sufficient mechanism for financial support of the sector. Rather, it acts as an indicator of local tourist activity and the quality of institutional administration. The greatest limitation for financial recovery is formed by the military-financial shock, which accumulates the consequences of the loss of tourist flows, destruction of infrastructure, relocation of business, and reduced safety of movement.

## DISCUSSION

The obtained results should be interpreted primarily as evidence of regional asymmetry in the fiscal recovery of the tourism sector under military challenges. The proposed index does not measure the complete institutional structure of tourism financing, because such a structure would require a separate assessment of the roles of state authorities, local governments, banking institutions, international donors, investment institutions, public-private partnerships and professional associations. Instead, the index measures the fiscal manifestation of financial support and recovery through tax revenues, tourist tax dynamics, short-term post-shock recovery, the share of the tourist tax in sectoral tax revenues, and the scale of the regional fiscal base.

The regression model deepens this interpretation. The coefficient for pre-war tax revenues equals 0.962, which means that current tax results in 2024 are almost proportionally connected with the fiscal base accumulated before the full-scale war. This result indicates path dependence in tourism recovery. Regions that had a larger and more diversified tourism business base before the shock were able to restore tax revenues more quickly. This finding is consistent with Sun et al. (2025) and Adedoyin et al. (2022), who emphasize that institutional quality strengthens the relationship between tourism and economic growth. However, the present study clarifies this relationship at the regional fiscal level by showing that institutional capacity operates through the preservation and recovery of tax-generating businesses, not only through abstract governance quality.

The positive but weaker coefficient of the tourist tax indicates that the local tourist tax is an important but auxiliary financial support mechanism. It reflects the activity of accommodation facilities, the effectiveness of local tax administration and the presence of tourist flows, but it cannot replace the wider fiscal base of the tourism sector. This result complements the conclusions of Şengel et al. (2023) and Estiri et al. (2022), who show that crisis support in tourism should combine fiscal instruments, business adaptation and policy targeting. For this study, the tourist tax is not treated as a self-sufficient source of sectoral financing. It is more correctly interpreted as a local indicator of institutional activity and a supplementary resource for community-level recovery.

The negative coefficient of the war-related fiscal shock confirms that the decline in 2023 had a persistent effect on the financial results of 2024. This result corresponds to the conclusions of Papagianni et al. (2024), Gozgor et al. (2022), Lee et al. (2021), and Hu and Wang (2025), who show that geopolitical risks affect tourism demand, tourism supply, and the image of destinations through several channels. The present study adds that, in wartime conditions, this influence is also visible in tax performance. An increase in the shock indicator by 0.1 points reduces the expected level of tourism tax revenues by approximately 16-17%, which confirms that financial support should be spatially differentiated. Regions affected by direct military risks, destroyed infrastructure, and reduced mobility require not only general tourism promotion, but also compensatory grants, restoration programs, safe route development, and support for small businesses.

Compared with Tomej et al. (2023), who demonstrated the operational resilience of tourism businesses in the first months of the invasion, the present study shows the fiscal manifestation of this resilience at the regional level in 2024. Compared with Gan et al. (2024) and Ghanem and Ghaley (2024), who emphasize the role of state intervention and public-private partnership in crisis response, the obtained results confirm that such mechanisms should be linked to measurable regional indicators. Therefore, the practical value of the proposed index lies in its ability to distinguish regions with high recovery potential from regions where the war shock continues to suppress the financial base of the tourism sector.

At the same time, the study has several limitations. First, the empirical base includes only open tax and tourist tax data, which means that informal accommodation, shadow transactions, unpaid services, volunteer mobility, and non-commercial travel are not fully reflected. Second, the model covers 2021, 2023 and 2024, while 2025 is not included because complete and comparable annual regional data were not part of the verified calculation matrix at the time of the study. Third, the regression results should be interpreted as associations, not as proof of direct causality, because tax revenues are influenced by security conditions, migration, infrastructure damage, transport accessibility and local policy measures that cannot be fully included in the model. Fourth, Min-Max normalization is sensitive to extreme values, especially in the case of Kyiv city, which has a much larger fiscal base than other regions. Fifth, equal weighting of index components ensures transparency but may not fully reflect the real priority of indicators in different types of regions. These limitations do not reduce the analytical value of the model, but they define the boundaries of its application and justify further research based on expanded regional, community-level, and firm-level datasets.

## CONCLUSIONS

The tourism sector during the war does not function according to the previous trajectory, since its development is determined not only by market demand, but also by security risks, local government capabilities, the quality of tax administration, budget support, and the ability of regions to quickly reorient tourist flows. Therefore, the financial support of tourism needs to be assessed not only through the absolute volumes of revenues, but also through indicators of recovery, adaptation and sustainability. According to the results of the calculations, the highest index values were obtained by Kyiv and the Ivano-Frankivsk region. In the first case, the result is explained by the scale of the fiscal base and the concentration of taxpayers. In the second case, the decisive role is played by the rapid recovery of tax revenues, the growth of the tourist tax, and the strengthening of the internal tourist flow. At the same time, low index values in some southern and eastern regions indicate that security risks and the loss of part of the infrastructure continue to limit the financial performance of the sector.

Econometric modeling confirmed the significant dependence of tax revenues of the tourism sector in 2024 on the pre-war fiscal base. The coefficient for the 2021 tax revenue variable is 0.962, which indicates an almost proportional relationship between the pre-war scale of tourism activity and current tax performance. At the same time, the tourist tax has a positive, but weaker effect. This result means that the tourist tax is an important indicator of local activity, but cannot be the only basis for financing the tourism sector. Its importance increases when it is combined with the tax capacity of businesses, budget programs, regional support policies, and infrastructure restoration tools.

The most negative impact in the model is the coefficient of military-financial shock. Its value is minus 1.826, which confirms the deep connection between the fall in tax revenues in 2023 and lower financial results in 2024. Thus, the regions that suffered the most failure after the start of a full-scale war need not only generally support measures, but also specially adapted fiscal mechanisms. These include grant programs for tourism businesses, compensatory instruments for the restoration of accommodation facilities, support for safe tourist routes, the development of domestic tourism, stimulation of small businesses, and strengthening the financial capacity of communities.

The practical significance of the results is that the proposed approach can be used by state authorities and local governments to identify regions with high potential for rapid recovery, as well as territories where targeted financial support is needed. The integral index can be the basis for comparing regions, forming budget financing priorities, substantiating tourism development programs, and assessing the effectiveness of local policies in the field of tourism fees.

Further research should be directed at expanding the database by indicators of the number of taxpayers, the number of collective accommodation facilities, the volume of local budget programs, capital investments in tourism infrastructure, the number of internally displaced persons, transport accessibility, and the security situation. Such an expansion will allow us to more accurately determine which fiscal mechanisms have the greatest impact on the financial recovery of the tourism sector in conditions of prolonged instability.

## ADDITIONAL INFORMATION

### AUTHOR CONTRIBUTIONS

All authors have contributed equally.

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### CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

## REFERENCES

1. Adedoyin, F. F., Erum, N., & Bekun, F. V. (2022). How does institutional quality moderates the impact of tourism on economic growth? Startling evidence from high earners and tourism-dependent economies. *Tourism Economics*, 28(5), 1311–1332. <https://doi.org/10.1177/1354816621993627>.
2. Akram, S., Sultana, N., Sultana, T., Majeed, M., & Saeed, R. (2021). Country governance, tourism and environment quality: An emerging economy perspective. *Management Science Letters*, 11(6), 1737–1746. <https://doi.org/10.5267/j.msl.2021.2.009>.
3. Babushko, S., & Opanasiuk, N. (2023). Directions for improving Ukrainian legislation on tourism in post-war times. *Studia Regionalne i Lokalne, Special Issue on Ukraine*, 111–119. <https://doi.org/10.7366/1509499552308>.
4. Chiu, C.-N. (2026). The cost of war and peace: Evidence from the impact of the Russia–Ukraine war on European tourism. *Current Issues in Tourism*, 29(6), 1216–1226. <https://doi.org/10.1080/13683500.2025.2472415>.
5. Estiri, M., Dahooie, J. H., & Skare, M. (2022). COVID-19 crisis and resilience of tourism SMEs: A focus on policy responses. *Economic Research-Ekonomska Istraživanja*, 35(1), 5556–5580. <https://doi.org/10.1080/1331677X.2022.2032245>.
6. Gabryjończyk, P., & Kudina, I. (2023). Tourism in war-time Ukraine: Condition, restrictions and prospects. *Turystyka i Rozwój Regionalny*, 19, 29–38. <https://doi.org/10.22630/TIRR.2023.19.3>.
7. Gan, J.-E., Lim, J. P. S., Trupp, A., & Poon, W. C. (2024). State intervention and tourism business resilience: Exploring firm-level crisis responses. *Annals of Tourism Research Empirical Insights*, 5(2), Article 100142. <https://doi.org/10.1016/j.annale.2024.100142>.
8. Ghanem, M., & Ghaley, M. (2024). Building a framework for a resilience-based public–private partnership. *Journal of Destination Marketing & Management*, 31, Article 100849. <https://doi.org/10.1016/j.idmm.2023.100849>.
9. Gill, C., & Kenworthy, A. L. (2025). Leading in response to crisis: Business war volunteer tourism. *Annals of Tourism Research*, 112, Article 103952. <https://doi.org/10.1016/j.annals.2025.103952>.
10. Goktepe, S., Cetin, G., Antonovica, A., & de Esteban Curiel, J. (2024). The impact of government legitimacy on the tourism industry during crises. *European Research on Management and Business Economics*, 30(3), Article 100259. <https://doi.org/10.1016/j.iiedeen.2024.100259>.
11. Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment. *Journal of Sustainable Tourism*, 29(1), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>.
12. Gozgor, G., Lau, M. C. K., Zeng, Y., Yan, C., & Lin, Z. (2022). The impact of geopolitical risks on tourism supply in developing economies: The moderating role of social globalization. *Journal of Travel Research*, 61(4), 872–886. <https://doi.org/10.1177/00472875211004760>.
13. Hu, P., & Wang, D. D. (2025). The impact of war on tourism: A synthetic control and causal configuration analysis. *Annals of Tourism Research*, 114, Article 104014. <https://doi.org/10.1016/j.annals.2025.104014>.
14. Kuščer, K., Eichelberger, S., & Peters, M. (2022). Tourism organizations' responses to the COVID-19 pandemic: An investigation of the lockdown period. *Current Issues in Tourism*, 25(2), 247–260. <https://doi.org/10.1080/13683500.2021.1928010>.
15. Lee, C.-C., Olasehinde-Williams, G., & Akadiri, S. S. (2021). Geopolitical risk and tourism: Evidence from dynamic heterogeneous panel models. *International Journal of Tourism Research*, 23(1), 26–38. <https://doi.org/10.1002/itr.2389>.
16. Ofori, I. K., Dossou, T. A. M., & Akadiri, S. S. (2023). Towards the quest to reduce income inequality in Africa: Is there a synergy between tourism development and governance? *Current Issues in Tourism*, 26(3), 429–449. <https://doi.org/10.1080/13683500.2021.2021157>.
17. Papagianni, E., Evgenidis, A., Tsagkanos, A., & Megalooikonomou, V. (2024). Tourism demand in the face of geopolitical risk: Insights from a cross-country analysis. *Journal of Travel Research*, 63(8), 2094–2119. <https://doi.org/10.1177/00472875231206539>.
18. Restrepo, N., & Anton Clavé, S. (2023). Exploring institutions' perceived roles in regional tourism development: An institutional thickness approach. *Journal of Policy Research*

- in *Tourism, Leisure and Events*, 15(4), 486–501. <https://doi.org/10.1080/19407963.2021.1962891>
19. Roik, O. R. (2025). Institutional determinants of resource provision for Ukraine's tourism sector within the framework of public-private partnerships. *Economics of Systems Development*, 7(1), 49–57. <https://doi.org/10.32782/2707-8019/2025-2-15>
  20. Roik, O. R., & Bublyk, L. Ya. (2024). Synergy of investment, innovation and financial mechanisms in the development of resource provision in the tourism sector. *Economics and Region*, 3(94), 22–29. [https://doi.org/10.26906/EiR.2024.3\(94\).3478](https://doi.org/10.26906/EiR.2024.3(94).3478)
  21. Schönherr, S., Peters, M., & Kuščer, K. (2023). Sustainable tourism policies: From crisis-related awareness to agendas towards measures. *Journal of Destination Marketing & Management*, 27, Article 100762. <https://doi.org/10.1016/j.jdmm.2023.100762>
  22. Şengel, Ü., Işkin, M., Çevrimkaya, M., & Genç, G. (2023). Fiscal and monetary policies supporting the tourism industry during COVID-19. *Journal of Hospitality and Tourism Insights*, 6(4), 1485–1501. <https://doi.org/10.1108/JHTI-08-2021-0209>
  23. Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321. <https://doi.org/10.1016/j.jbusres.2020.06.015>
  24. State Agency for Tourism Development of Ukraine. (2024). *The dynamics of tax revenues by regions for the year 2023*. <https://www.tourism.gov.ua/en/eng-blogs/the-dynamics-of-tax-revenues-by-regions-for-the-year-2023>
  25. State Agency for Tourism Development of Ukraine. (2025). *U 2024 rotsi turystychna sfera Ukrainy prynesla v biudzhet maizhe 3 mlrd hrn [In 2024, Ukraine's tourism sector brought almost UAH 3 billion to the budget]*. URL: <https://www.tourism.gov.ua/blog/u-2024-turystychna-sfera-ukrayini-prynesla-v-byudzhet-maizhe-3-mlrd-grn>
  26. State Statistics Service of Ukraine. (n.d.). *Official website*. <https://stat.gov.ua/>
  27. Sun, Z., Liu, L., Pan, R., Wang, Y., & Zhang, B. (2025). Tourism and economic growth: The role of institutional quality. *International Review of Economics & Finance*, 98, Article 103913. <https://doi.org/10.1016/j.iref.2025.103913>
  28. Tan, J., & Cheng, M. (2025). Tourism, war, and media: The Russia-Ukraine war narrative. *Journal of Travel Research*, 64(5), 1031–1044. <https://doi.org/10.1177/00472875241245047>
  29. Tomej, K., Bilynets, I., & Koval, O. (2023). Tourism business resilience in the time of war: The first three months following Russia's invasion of Ukraine. *Annals of Tourism Research*, 99, Article 103547. <https://doi.org/10.1016/j.annals.2023.103547>
  30. Trusova, N., & Trusova, A. (2025). Mechanisms for legal and economic support of tourism development in Ukraine. *Economic Forum*, 15(4), 68–80. <https://doi.org/10.62763/ef/4.2025.68>
  31. Yeh, S. S. (2021). Tourism recovery strategy against COVID-19 pandemic. *Tourism Recreation Research*, 46(2), 188–194. <https://doi.org/10.1080/02508281.2020.1805933>
  32. Yermachenko, V., Melnychenko, S., Sidak, M., Dupliak, T., & Lositska, T. (2024). Sustainable tourism in the post-war reconstruction of territorial communities in Ukraine. *Access Journal*, 5(1), 34–57. [https://doi.org/10.46656/access.2024.5.1\(3\)](https://doi.org/10.46656/access.2024.5.1(3))
  33. Zavarika, H., & Zelenko, O. (2024). An analysis of the features of the organisation of tourist activities in the conditions of martial law in Ukraine. *Studia Regionalne i Lokalne, Special Issue*, 118–134. <https://doi.org/10.7366/15094995S2409118>

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## ФІСКАЛЬНИЙ МЕХАНІЗМ ФІНАНСОВОЇ ПІДТРИМКИ ТУРИСТИЧНОГО СЕКТОРА В УМОВАХ ВОЄННИХ ВИКЛИКІВ

Метою дослідження є обґрунтування фіскального механізму фінансової підтримки туристичної галузі в умовах воєнних викликів і кількісне оцінювання його впливу на податкову результативність регіонів. Емпіричну базу сформовано на основі відкритих даних щодо податкових надходжень туристичної галузі та туристичного збору за регіонами протягом 2021, 2023 та 2024 років. Для оцінювання регіональних відмінностей побудовано інтегральний індекс фінансової спроможності туристичної галузі, який ураховує відновлення податкових надходжень порівняно з довоєнним рівнем, динаміку післяшокового відновлення, зміну туристичного збору, частку туристичного збору в загальних податкових надходженнях і масштаб фіскальної бази регіону. Для визначення впливу основних факторів на податкові надходження туристичної галузі 2024 року побудовано логарифмічну регресійну модель.

Результати дослідження показали, що фінансове відновлення туристичної галузі має виражений регіональний характер. Найвищі значення інтегрального індексу фінансової спроможності сформували регіони, які поєднують значну довоєнну фіскальну базу, позитивну динаміку туристичного збору та нижчу глибину воєнно-фінансового шоку. Регресійне моделювання підтвердило, що податкові надходження туристичної галузі 2024 року найбільше залежать від довоєнної податкової бази, а туристичний збір має позитивний, але слабший вплив. Водночас коефіцієнт воєнно-фінансового шоку має суттєвий негативний вплив, що підтверджує необхідність цільової підтримки регіонів, які зазнали найбільшого скорочення туристичної активності після початку повномасштабної війни.

**Ключові слова:** туристична галузь, фінансове забезпечення, фіскальний механізм, туристичний збір, податкові надходження, воєнні виклики, інтегральний індекс, регресійне моделювання

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