Rebuilding Ukraine: Socio-Cultural Strategies for Developing the Hospitality Industry in the Post-War Era

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Abstract: The study's relevance is driven by the critical need to restore Ukraine's hospitality industry after the hostilities, which is crucial in restoring socio-economic well-being and strengthening the country's international relations. The article focuses on socio-cultural clustering as a tool for stimulating economic revival, increasing cultural attractiveness and attracting investment. The study identifies the key characteristics of socio-cultural clusters that allow for the most efficient use of regional resources to create an innovative environment that can attract visitors and new businesses. The dynamics of interactions between the main cluster participants: the state, the private sector, scientific institutions and the public are analysed, and their contributions to the cluster development are assessed. Methodological approaches are presented, and the logical-structural method is used to assess the coordination of efforts of all stakeholders. The study substantiates the importance of socio-cultural clustering for developing the hospitality sector. It proposes models for optimising sustainable cluster management, which aims to create conditions for the full use of the potential of each region in the future realities of the post-war situation in Ukraine.

Keywords: socio-cultural clustering, hospitality industry, post-war recovery, regional development, cultural potential, post-war recovery.

Introduction

In the context of Ukraine's post-war recovery, the development of the hospitality industry is of particular relevance, as this sector plays an important role in stimulating economic growth and, at the same time, serves as a tool for achieving socio-cultural unity in society. Given the negative consequences of the hostilities, including large-scale destruction of infrastructure, a significant decline in foreign investor confidence, and significant migration processes, it is clear that there is a need for a fundamental rethinking of approaches to restoring the hospitality industry, which should be based on current challenges and prospects. The application of the concept of socio-cultural clustering in the restoration of this sector opens up opportunities for a harmonious combination of local cultural, historical and social features with national reconstruction strategies, which in the long run will contribute to the sustainable development of regions, increase their attractiveness to tourists and form a positive international image of Ukraine [1]. In addition, this approach provides a powerful impetus for strengthening social cohesion, actively preserving the unique cultural heritage and developing socio-cultural components in the creative industries. The analysis and further practical implementation of socio-cultural clustering in the context of the hospitality industry recovery allows us to determine the best ways to adapt it to the new realities of post-war society while integrating the fundamental principles of sustainability, socio-cultural components and inclusiveness [2]. As a result, the study responds to urgent social demands, contributing to the effective restoration of the industry and the formation of sound recommendations for improving public policy in tourism and hospitality.

The article aims to form the theoretical and methodological foundations of socio-cultural clustering as an effective tool for stimulating the development of the hospitality industry in Ukraine's post-war recovery.

Literature review

Among the various scientific papers on the socio-cultural space of tourism and hospitality, several approaches should be distinguished that focus on its dynamism, multifunctionality and ability to create unique conditions for market interaction. Shpak et al. [3] and Xu et al. [4] substantiate the conceptual foundations of the formation and scientific analysis of hospitality industry clusters. The authors propose approaches to developing a cluster model at the regional level, outlining the directions of action of innovative factors in the development of the hospitality industry. Later, Benhaida et al. [5] and Lou [6] propose an interpretation of the concept of a "socio-cultural cluster" that reflects its key characteristics. They describe a cluster as a multi-level, open, internally differentiated dynamic system that brings together various institutions and organisations, regardless of their legal ownership, to create a favourable socio-cultural environment and provide high-quality services to the population.

Several researchers, including Petruzzi et al. [7], and Zha et al. [8], emphasise the key role of cultural industrialisation in the context of current trends in society, characterised by informatisation, active networking and significant intensification of communication processes. Later on, other scholars [9, 10, 11] note that, on the one hand, the formation of socio-cultural clusters can perceived as a process of standardisation of cultural products, which can potentially lead to a decrease in the role of the creative component, which is the basis of cultural activity. However, on the other hand, the creation of such clusters, provided that specialisation is maintained and creativity is stimulated in various areas of cultural genesis, can provide hospitality industry representatives with the opportunity to receive not only spiritual but also material satisfaction from their work, which will increase their motivation and engagement.

In turn, we note the works of Kachniewska [12], Lundberg et al. [13], and Metelenko et al. [14], which outline the idea that socio-cultural clusters are closely related to the concepts of the creative economy and creative industries, as the cluster approach to the development of the socio-cultural environment involves the integration of creativity and commercial activity. At the same time, it is aimed at stimulating the development of various areas of creative production that are directly related to the preservation and enhancement of the cultural heritage of a particular region or country.

The importance of factors influencing the formation of clusters is emphasised in the studies by Erkuş-Öztürk [15], Prokopenko and Omelyanenko [16], who emphasise the importance of tourist attractions, the availability of modern infrastructure, and the overall level of development of a particular region. At the same time, Kolesnyk et al. [17] and Vasanicova et al. [18] draw attention to the role of geographical location and the level of cooperation between cluster actors. We note that there are gaps in the development and existence of socio-cultural clusters, which can become a tool for adapting the hospitality industry to new conditions and challenges and, for the future of Ukraine, a source of recovery.

Research methods

The study is based on creating a socio-cultural cluster structure, an integrated system of organisations that interact to develop the hospitality industry. The component method divides the elements under study into subsystems, with special attention paid to educational and scientific, human resources, investment and institutional components. This approach aims to identify and analyse the interrelationships between the subsystems, ensuring the coordination of their functions to achieve sustainable industry development in the context of the country's post-war recovery. The logical-structural method was used to study the interaction between cluster members and define their roles and functions in creating and implementing socio-cultural elements. The construction of logical models made it possible to assess the level of coordination between the main stakeholders.

An econometric method based on the formation of an integral indicator is used to model the socio-cultural clustering of the hospitality industry development. Based on data analysis from four clusters – educational and cultural, personnel, dynamic and institutional – the weighting coefficients (C_j) were calculated using the normalisation formula, which considers the specifics of each indicator in the overall structure. The integral values for each region (I_{ij}) were calculated by aggregating the indicators of the Clusters using the weighting factors. The rating methodology involves assessing the indicators within each cluster and determining the significance of individual clusters. In the course of the study, each of the indicators (X_j) was assigned a rank (R_{ij}) depending on the degree of its importance for assessing the socio-cultural clustering of regions in the hospitality sector. The highest rank ($R_j = 1$) was assigned to indicators of key importance, and the less important indicators received lower ranks ($R_j = 2$) and further, according to the algorithm).

Results

Theoretical and organisational constructs of socio-cultural clustering

The socio-cultural cluster can concentrate all types of resources of the region - material, organisational, infrastructural, human resources – to create a socio-cultural and creative environment attractive to locals and

visitors. Its implementation allows us to give a new meaning to the concept of "cultural service", which previously could cause some rejection among cultural figures [19]. Within the cluster, this term receives a clear meaning aimed at creating new opportunities for cultural development, economic growth and integration of culture into the hospitality industry, which is especially important in the context of Ukraine's post-war recovery [20].

Previously proposed models of socio-cultural activity management used in other industries cannot provide adequate efficiency for developing socio-cultural components of activity in the hospitality industry due to its unique features and differences. Management processes in this area are focused on finding a balance between centralised management by public authorities and decentralised decisions at the level of individual organisations. In this regard, there is a need to develop a conceptually new system for managing socio-cultural activity that would take into account the specifics of the hospitality industry and could ensure its effective functioning in the face of modern challenges, in particular during the period of post-war recovery of Ukraine (Figure 1) [21].
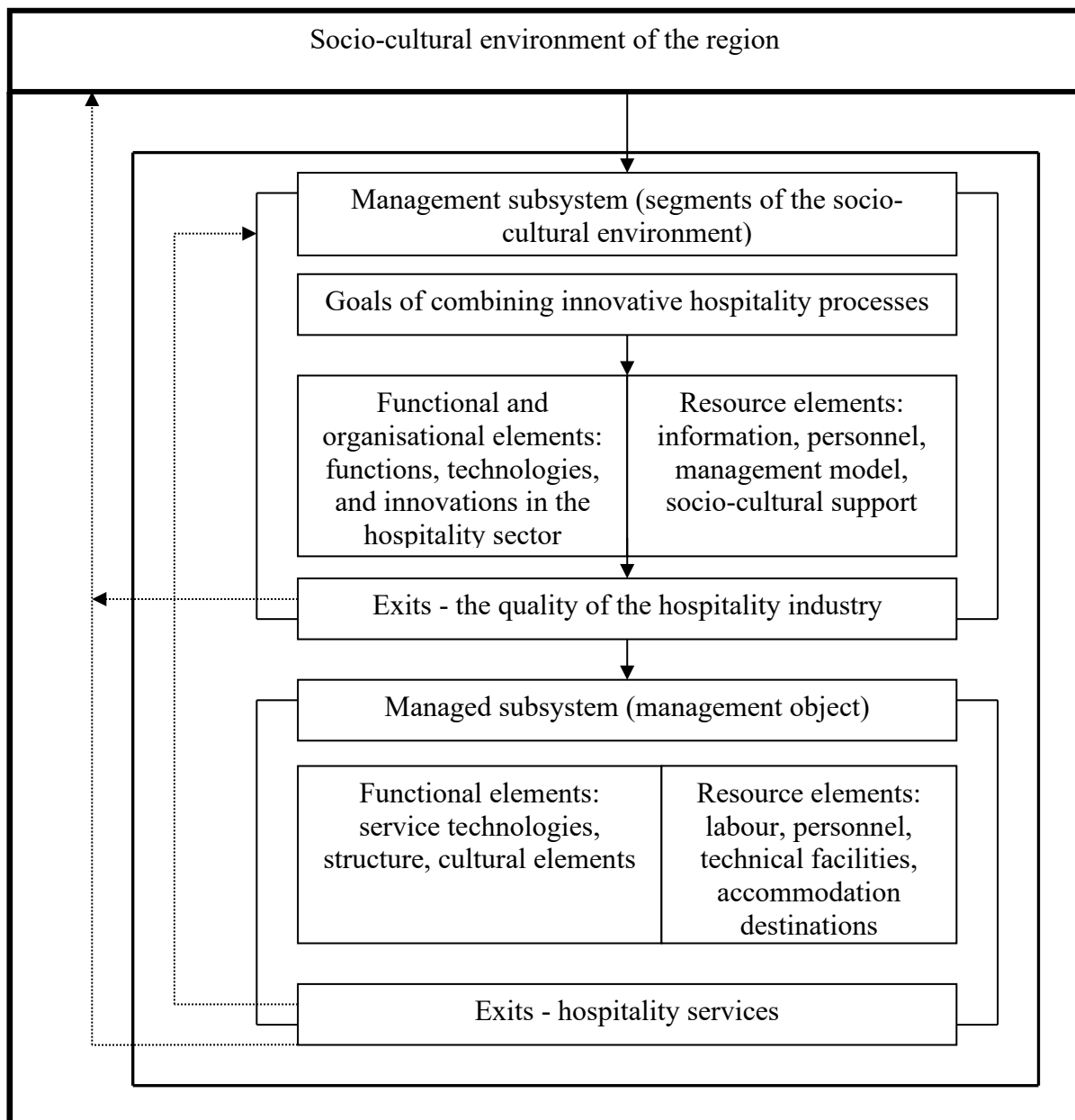

Figure 1. Systemic model of managing the socio-cultural component of innovation processes for the development of the hospitality industry in the further post-war recovery of Ukraine
Source: constructed by the author

The main difference between the proposed management system is the relationship between the support and research subsystems, which in this model are not separate autonomous elements but managed subsystems subordinated to the central management. Unlike other approaches, where these subsystems are considered independent, this model emphasises their dependence on the regulatory and legislative framework and on the decisions and actions of public authorities aimed at supporting the socio-cultural components in the hospitality industry. This kind of integration further ensures greater coherence and increases the efficiency of management processes [22].

In the context of Ukraine's post-war recovery, the development of an effective system for managing socio-cultural activity in the hospitality industry is becoming an integral component of supporting the industry's sustainable development, facilitating its integration into the international market and meeting the needs of society. Such an approach will ensure effective coordination between key actors in the socio-cultural process, using all available resources at the macro and micro levels. It will help restore the economic and social stability of the country. The organisation of a socio-cultural cluster in the hospitality industry can be an effective mechanism for stimulating this industry, directly affecting the formation and development of the country's socio-cultural environment [23]. In the course of the socio-cultural cluster's functioning, the final results are achieved, which have different meanings for each stakeholder. For investors, this means an increase in additional income; for managers of hospitality industry organisations – ensuring a high level of competitiveness and increased profitability; for public authorities – an increase in tax revenues and employment; and for citizens – access to quality socio-cultural services and new jobs in the hospitality sector [24].

Such a system should pay particular attention to cluster structuring, which should be based on several important factors. First, it is an opportunity to preserve and strengthen a single economic space through the integrated development of socio-cultural component-oriented clusters, implemented through systemic and targeted approaches to strategic management. Secondly, the cluster approach ensures that socio-cultural support is closer to sources of raw materials, energy, fuel, and places of consumption for finished products, which reduces logistics costs and increases efficiency. Thirdly, it promotes an even distribution of production across the country, which is important for levelling the socio-economic development of regions. Finally, clustering strengthens the country's competitiveness and promotes stability, critical for Ukraine's post-war recovery process.

The defining element of the system of managing socio-cultural activity in the hospitality industry is a socio-cultural cluster, which can be represented as an integrated set of organisations that interact to develop the industry. This cluster includes various institutions, including hospitality industry organisations, higher education institutions, research institutes, and management and coordination organisations. The identified actors focus on forming socio-cultural components that serve as the basis for the growth of component activities in the hospitality industry [25].

The central component of a socio-cultural cluster is its core, which includes organisations directly involved in developing and implementing socio-cultural components, as well as the infrastructure that facilitates the dissemination of these innovations. The cluster core is where ideas, technologies and resources are actively integrated to create competitive hospitality products and services [26]. A systematic classification of the key participants in this process was developed to gain a deeper understanding of the processes within the cluster core. This classification takes into account the specific characteristics of each group of participants, in particular their functions, roles and interactions in the process of developing, implementing and scaling socio-cultural components, which makes it possible not only to identify the main growth points in the hospitality industry but also to optimise management processes, increasing the efficiency and effectiveness of the cluster in the context of post-war measures to restore Ukraine (Table 1).

Table 1. Classification of stakeholders in the development of socio-cultural clusters in Ukraine for post-war recovery programmes

Category	Examples of stakeholders	Key role in the cluster	Expected results
1. State	Ministries, local administrations	Coordination and development of the legal and regulatory framework	Promoting regional recovery
2. Business	Hotels, restaurants, travel agencies	Investing in and implementing socio-cultural components	Increase profitability and competitiveness
3. Communities	Residents, cultural organisations	Preserving traditions and participating in cluster projects	Creating jobs and improving the quality of life
4. Science	Universities, research institutes	Development of socio-cultural component solutions	Implementation of modern technologies
5. International partners	Donor organisations, investors	Financial and technical support	Attracting international resources

Source: constructed by the author

The coordinates of such a structure reveal a complex network of interconnections between different cluster members. For example, socio-cultural activities should be integrated at all stages of socio-cultural provision in the hospitality industry, ensuring service efficiency and quality. Related and ancillary industries play an important role, providing the cluster with additional resources, such as investments, material and technical means, and services from other sectors of the region's economy. Through the relevant authorities, the state coordinates the cluster's activities, creating favourable conditions for its functioning [27].

Econometric modelling of socio-cultural clustering of hospitality industry development in the regions of Ukraine

Several regions, including Poltava (PR), Odesa (OR), Kyiv (KR), Zaporizhzhia (ZR), Lviv (LR,) and Ivano-Frankivsk (IFR), were selected to study the socio-cultural clustering of hospitality industry development in the context of post-war recovery in Ukraine. The selected regions were identified as key for the study due to their unique cultural potential, tourist attractiveness, and importance in the context of the further post-war restart of the hospitality industry [3].

The rating of socio-cultural clustering was compiled using data provided by the State Agency for Hospitality Development of Ukraine and the National Tourism Organisation of Ukraine, as well as information from state programmes for the development of culture and hospitality and data published on the official resources of regional authorities [28]. The involvement of official statistical and analytical sources ensured the results' objectivity, transparency and openness. In addition, such an approach allows adapting the developed system of indicators to analyse all regions of Ukraine [29]. The final results of the ranking are presented in Table 2, which demonstrates the importance of different components in the overall process of assessing socio-cultural clustering (Appendix A).

Table 2. Results of ranking of socio-cultural clustering indicators

Cluster 1		Cluster 2		Cluster 3			Cluster 4		
$R_{(11)}$	$R_{(12)}$	$R_{(21)}$	$R_{(22)}$	$R_{(31)}$	$R_{(32)}$	$R_{(33)}$	$R_{(41)}$	$R_{(42)}$	$R_{(43)}$
1	2	2	1	2	1	3	1	2	3

Source: compiled by the author

Similarly, ranks ($R_{(i)}$)) were assigned to clusters of indicators ($R_{(ij)}$)).

The ranking results are presented in Table 3.

Table 3. Results of ranking the Clusters of socio-cultural clustering indicators

$R_{(1)}$	$R_{(2)}$	$R_{(3)}$	$R_{(4)}$
1	4	2	3

Source: compiled by the author

I. Let's build a rating of socio-cultural clustering of regions in the hospitality sector. In the first stage, we calculate a composite indicator for each cluster. We calculated the weighting coefficients (C_j) according to formula (1):

$$C_j = 1 - \frac{R_j - 1}{K} \tag{1}$$

Let's use formula (2) to determine the normalisation of the weighting coefficients ($\bar{C}_j$) of the indicators of each of the 4 Clusters.

$$\bar{C}_j = \frac{C_j}{\sum\limits_{j=1}^{n} C_j} \tag{2}$$

The results of the calculations are presented in Table 4.

Table 4. Calculation and normalisation of weighting coefficients (indicators)

X_j	X_{11}	X_{12}	X_{21}	X_{22}	X_{31}	X_{32}	X_{33}	X_{41}	X_{42}	X_{43}
C_j	1	0,5	0,5	1	0,667	1	0,333	1	0,667	0,333
$\overline{C}_j$	0,7	0,3	0,3	0,7	0,3	0,5	0,2	0,5	0,3	0,2

Source: compiled by the author

The second stage of the study involves calculating the weighting coefficients for each of the regions being compared, considering all the indicators that make up the four main clusters. After that, it is necessary to determine the generalised indicators for each region by integrating the data obtained for all four clusters.

The results of the calculation of the weighting coefficients (C_{ij}), which characterise each region by the indicators of each of the clusters, are presented in Table 5. The formed coefficients are calculated by the formula (1), which takes into account the specifics of the indicators and allows for an objective comparative assessment of the regions in the context of their contribution to the development of socio-cultural clustering of the hospitality industry (Table 5) [30].

Table 5. Results of the calculation of regional weights

Region (i) / X_j	X_{11}	X_{12}	X_{21}	X_{22}	X_{31}	X_{32}	X_{33}	X_{41}	X_{42}	X_{43}
Lviv region	0,31	0,3	0,25	0,21	0,3	0,18	0,002	0,2	0,19	0,17
Poltava region	0,09	0,11	0,17	0,37	0,15	0,28	0,28	0	0,125	0
Ivano-Frankivsk region	0,17	0,09	0,14	0,22	0,1	0,02	0,005	0,2	0,125	0,33
Kyiv region	0,09	0,22	0,08	0,05	0,06	0,03	0,001	0,2	0,31	0
Zaporizhzhya region	0,14	0,09	0,18	0,1	0,14	0,15	0,002	0,2	0,125	0,17
Odesa region	0,2	0,19	0,18	0,05	0,25	0,34	0,71	0,2	0,125	0,33

Source: compiled by the author

II. Using the formula (3), let us calculate the generalised indicator for each of the compared regions ($\overline{X_{re}}$) within each of the 4 clusters.

$$\overline{X_{re}} = \overline{C}_j \times C_j$$

(3)

2.1. The generalised indicator for each of the compared regions ($\overline{X_{re}}$) within the same cluster is calculated:

$\overline{X}_{PR} = 0,31 \times 0,7 + 0,3 \times 0,3 = 0,307,$

$\overline{X}_{OR} = 0,09 \times 0,7 + 0,11 \times 0,3 = 0,096,$

$\overline{X}_{KR} = 0,17 \times 0,7 + 0,09 \times 0,3 = 0,146,$

$\overline{X}_{ZR} = 0,09 \times 0,7 + 0,22 \times 0,3 = 0,129,$

$\overline{X}_{LR} = 0,14 \times 0,7 + 0,09 \times 0,3 = 0,125,$

$\overline{X}_{IFR} = 0,2 \times 0,7 + 0,19 \times 0,3 = 0,197.$

2.2. The generalised indicator for each of the compared regions ($\overline{X_{re}}$) within the 2nd cluster is calculated:

$\overline{X}_{PR} = 0,25 \times 0,3 + 0,21 \times 0,7 = 0,222,$

$\overline{X}_{OR} = 0,17 \times 0,3 + 0,37 \times 0,7 = 0,31,$

$\overline{X}_{KR} = 0,14 \times 0,3 + 0,22 \times 0,7 = 0,196,$

$\overline{X}_{ZR} = 0,08 \times 0,3 + 0,05 \times 0,7 = 0,059,$

$\overline{X}_{LR} = 0,18 \times 0,3 + 0,1 \times 0,7 = 0,124,$

$\overline{X}_{IFR} = 0,18 \times 0,3 + 0,05 \times 0,7 = 0,089.$

2.3. The generalised indicator for each of the compared regions ($\overline{X}_{re}$) within the 3rd cluster is calculated:

$\overline{X}_{PR} = 0,3 \times 0,3 + 0,18 \times 0,5 + 0,002 \times 0,2 = 0,1804,$

$\overline{X}_{OR} = 0,15 \times 0,3 + 0,28 \times 0,5 + 0,28 \times 0,2 = 0,241,$

$\overline{X}_{KR} = 0,1 \times 0,3 + 0,02 \times 0,5 + ,005 \times 0,2 = 0,041,$

$\overline{X}_{ZR} = 0,06 \times 0,3 + 0,03 \times 0,5 + 0,001 \times 0,2 = 0,0332,$

$\overline{X}_{LR} = 0,14 \times 0,3 + 0,15 \times 0,5 + 0,002 \times 0,2 = 0,1174,$

$\overline{X}_{IFR} = 0,25 \times 0,3 + 0,34 \times 0,5 + 0,71 \times 0,2 = 0,387.$

2.4. The generalised indicator for each of the compared regions ($\overline{X}_{re}$) within the 4th cluster is calculated:

$\overline{X}_{PR} = 0,2 \times 0,5 + 0,19 \times 0,3 + 0,17 \times 0,2 \times 0,191,$

$\overline{X}_{OR} = 0 \times 0,5 + 0,125 \times 0,3 + 0 \times 0,2 \times 0,0375,$

$\overline{X}_{KR} = 0,2 \times 0,5 + 0,125 \times 0,3 + 0,33 \times 0,2 \times 0,2035,$

$\overline{X}_{ZR} = 0,2 \times 0,5 + 0,31 \times 0,3 + 0 \times 0,2 \times 0,193,$

$\overline{X}_{LR} = 0,2 \times 0,5 + 0,125 \times 0,3 + 0,17 \times 0,2 \times 0,1715,$

$\overline{X}_{IFR} = 0,2 \times 0,5 + 0,125 \times 0,3 + 0,33 \times 0,2 \times 0,2035.$

III. At the third stage of the study, a generalised integral indicator must be calculated for each of the regions compared within the framework of the hospitality industry's socio-cultural clustering.

First, the weighting coefficients for the clusters of indicators are calculated according to formula (4), which takes into account the importance of each Cluster in the overall assessment structure.

$$C_i = 1 - \frac{R_i - 1}{K}$$

(4)

After that, the obtained weighting coefficients are normalised using formula (5), which ensures their proportional distribution and is the basis for considering each cluster's specifics in the final assessment (Table 6).

$$\overline{C}_i = \frac{C_i}{\sum\limits_{j=1}^{n} C_i}$$

(5)

Table 6. Results of calculation and normalisation of weighting coefficients of the indicator clusters

$X_{(i)}$	$X_{(1)}$	$X_{(2)}$	$X_{(3)}$	$X_{(4)}$
$C_{(i)}$	1	0,25	0,75	0,5
$\overline{C}_j$	0,4	0,1	0,3	0,2

Source: compiled by the author

IV. The fourth stage involves calculating the integrated indicator for each region under comparison ($\overline{X_{re}}$). Based on the analysis and the results obtained, a rating of the regions under study will be formed, considering the criterion of the maximum value of the integrated indicator. All results are presented in Table 7. They form the basis for a visual representation of the regions' position in terms of their potential in the socio-cultural clustering of the hospitality industry in the expected conditions of further post-war recovery of Ukraine [31]

Table 7. Ranking of Ukrainian regions by the level of socio-cultural clustering of the hospitality industry

Register *(i)*	$\overline{X_{re}}$	Place in the ranking
Poltava region	0,24919	2
Ivano-Frankivsk region	0,15666	3
Zaporizhzhya region	0,13755	5
Odesa region	0,11136	6
Kyiv region	0,13852	4
Lviv region	0,25673	1

Source: compiled by the author

Let us determine the rating of regions based on the results of the methodological approach to socio-cultural clustering (Table 8).

Table 8. Final rating of selected regions of Ukraine

Place in the ranking	Register *(i)*
1	Lviv region
2	Poltava region
3	Ivano-Frankivsk region
4	Kyiv region
5	Zaporizhzhya region
6	Odesa region

Source: compiled by the author

According to the results of the analysis, the Poltava region was ranked second in the level of socio-cultural clustering in the hospitality sector, behind the Lviv region. The proposed methodology allows for determining the overall place of regions in the ranking and a detailed comparison of each indicator of a particular cluster type. For example, the Poltava region demonstrates a significant advantage over other regions regarding scientific and educational potential, indicating a high training level in hospitality-oriented educational institutions. However, concerning human resources potential, the Poltava region is inferior to the Ivano-Frankivsk region due to insufficient funding for retraining, advanced training and certification of hospitality professionals.

Discussion

The study's results on the formation of the practice of socio-cultural clustering of the development of the hospitality industry from the perspective of active post-war recovery of Ukraine are mainly consistent with previous scientific research. However, at the same time, new methodological and structural interpretations are proposed within the framework of the goal. In particular, the final findings confirm the thesis formulated by Yermak [24] that cluster initiatives can integrate diverse resources at the regional level and ensure sustainable development while preserving cultural heritage. In addition, the study deepens the concepts outlined in Lewandowska et al. [27], emphasising the components of achieving a balance between centralised cluster management and possible autonomy towards the socio-cultural component.

At the same time, some of the final aspects of the results obtained contradict the findings of a group of researchers [20], who focused on a group of risks associated with the excessive specialisation of regions within clusters. The current study proves that strategic diversification of cluster initiatives, which includes the active involvement of intersectoral links, can qualitatively provide a broader economic and socio-cultural effect. In particular, in the proposed methodological approach to the implementation and introduction of socio-cultural clustering in the hospitality sector, the importance of using a systematic approach to identifying research factors to improve the efficiency of clusters was emphasised.

The study's novelty lies in its creation of an integrated approach to assessing the effectiveness of socio-cultural clustering, based on the use of weighting coefficients for a detailed analysis of four main clusters: educational and cultural, personnel, dynamic, and institutional. The developed methodological approach forms a scientific contribution to developing the hospitality sector at the level of the country's regions. It helps to determine strategic directions for further improvement, which significantly contributes to the scientific discourse on socio-cultural development.

Conclusion

The study has shown that socio-cultural clusters can effectively consolidate various regional resources, such as material, organisational, infrastructure and human resources, to create an innovative and creative environment that simultaneously meets the needs of residents and attracts visitors. The peculiarity of this approach is that it promotes harmonious interaction between cluster members, which, in turn, increases the competitiveness of regions and facilitates their successful integration into the global economic system. At the same time, the cluster's support and scientific subsystems act as managed elements, allowing for centralised coordination of their activities and achieving a significant synergistic effect.

The proposed model for managing socio-cultural activity aims to ensure sustainable development of the hospitality industry through optimal use of available resources and integration of socio-cultural components. The identified strengths, such as the high educational and scientific potential of certain regions, and the identified challenges, such as insufficient funding, are the basis for developing adaptive development strategies that play a crucial role in the post-war recovery of Ukraine and achieving social stability.

The study of the selected regions showed that Lviv and Poltava regions have significant potential due to their well-developed educational and research infrastructure and high level of hospitality training. However, to maximise the use of this potential, it is necessary to address existing problems, such as insufficient funding for research and development, and ensure more effective integration of available resources at both the regional and national levels. The developed methodology for assessing socio-cultural clustering allows for the identification of both strong and weak aspects of the development of each region. It aims to form innovative strategies based on the rational use of cultural destinations and hospitality components.

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Appendix A

Indicators for measuring the socio-cultural provision of the hospitality sector in some regions of Ukraine

Indicator code (j)	Indicator (X_{ij})	Unit of measurement	Lviv	Poltava	Ivano-Frankivsk	Kyiv	Zaporizhzhya	Odesa
1. Educational and cultural support								
X_{11}	Number of higher and secondary vocational education institutions that provide training for the hospitality industry	units	11	7	9	8	3	4
X_{12}	Number of internal and external conferences, forums, and seminars on the development of the regional hospitality industry	units	30	25	20	18	15	10
2. 2.								
X_{21}	Number of employees employed in the hospitality industry in the region	man.	5000	4500	4000	3500	3000	2500
X_{22}	Amount of funding for retraining, advanced training and certification of personnel in the hospitality sector	thousand UAH.	2000	1800	1600	1400	1200	1000
3. Dynamic and guest support								
X_{31}	The volume of inbound guest flow within the tourist and excursion destination	thousand people	4000	3500	3000	2500	2000	1500
X_{32}	Share of hospitality revenues in the gross regional product, taking into account the multiplier effect	%	6,0	5,5	5,0	4,5	4,0	3,5
X_{33}	Share of R&D expenditures in the total funding of the regional hospitality development programme	%	3,0	2,5	2,0	1,8	1,5	1,3
4. Institutional environment for socio-cultural support								
X_{41}	Availability of regional regulations governing socio-cultural activities in the hospitality sector	yes = 1, no = 0	1	1	1	1	1	0
X_{42}	Number of regional hospitality regulations in force	units	10	8	7	6	5	4
X_{43}	Number of projects in the form of public-private partnerships in the field of recreation and hospitality	units	5	4	3	3	2	1

Source: [32]