

RESEARCH ARTICLES

**Determination of Potential of Culture Industry –
Indicators of Integrated Assessment**

**Determinación del potencial de la industria cultural: indicadores
de evaluación integrada**

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Summary

The concept of an Integrated Service Center is reviewed in the article; the author analyzes existing domestic and foreign perspectives on the definition and evaluation of cultural services. The integrating innovative component of the culture industry is revealed. The proposed method allows responding quickly to changes in the environment and adapting to the economy of a particular subject. The research method involves the use of logistics principles in the culture industry, integrated and systematic approaches that determine the need to take into account all factors and their dynamics, a synergetic approach involving the integration of elements that form a comprehensive (integrated) potential of the culture industry. The method proposed in the article allows reducing expenditures on culture, controlling the ratio and quality of free and paid services, making a profit and realizing the internal reserves of cultural enterprises. According to the results of the study, a matrix of SWOT-analysis of the cultural sector has been formed. The relevance of the results consists in the development that allows finding solutions to organizational, economic and financial problems of the cultural sector and will help to increase its contribution to the economic development of the regions and the Russian economy as a whole. The approach to the formation of complex (integrated) potential can include indicators: social potential, economic potential, information potential, resource (infrastructure) potential and cultural potential. Each of the potentials requires assessment (calculation and measurement) and further specific solutions for each subject of the culture industry.

Key words: Culture industry, Business model of culture industries, Culture industry potential, Integrated service complex, Calculation of the integrated complex indicator of the potential of the culture industry.

Resumen

El concepto de un Centro de Servicios Integrados se revisa en el artículo; el autor analiza las perspectivas nacionales y extranjeras existentes sobre la definición y evaluación de los servicios culturales. Se revela el componente innovador integrador de la industria cultural. El método propuesto permite responder rápidamente a los cambios del entorno y adaptarse a la economía de un tema en particular. El método de investigación implica el uso de principios logísticos en la industria de la cultura, enfoques integrados y sistemáticos que determinan la necesidad de tomar en cuenta todos los factores y su dinámica, un enfoque sinérgico que involucra la integración de elementos que forman un potencial integral (integrado) del industria de la cultura. El método propuesto en el artículo permite reducir los gastos en cultura, controlar la proporción y la calidad de los servicios gratuitos y de pago, obtener ganancias y realizar las reservas internas de las empresas culturales. Según los resultados del estudio, se ha formado una matriz de análisis DAFO del sector cultural. La relevancia de los resultados consiste en el desarrollo que permite encontrar soluciones a los problemas organizativos, económicos y financieros del sector cultural y ayudará a incrementar su contribución al desarrollo económico de las regiones y de la economía rusa en su conjunto. El enfoque para la formación de potencial complejo (integrado) puede incluir indicadores: potencial social, potencial económico, potencial de información, potencial de recursos (infraestructura) y potencial cultural. Cada uno de los potenciales requiere una evaluación (cálculo y medición) y más soluciones específicas para cada tema de la industria cultural.

Palabras clave: Industria de la cultura, Modelo de negocio de las industrias de la cultura, Potencial de la industria de la cultura, Complejo de servicios integrados, Cálculo del indicador del complejo integrado del potencial de la industria de la cultura.

Introduction

The definition of the culture industry initially focuses on its integral component – production and distribution of cultural services, namely symbols and texts that affect our perception and understanding of the world. However, the culture industry is a complex business structure interested in profit by producing and distributing symbols and texts (Hesmondalgh, 2014).

The culture industry as an economic sphere considers the provision of paid services only and it is focused on profit. Paid services provided to the population of the Russian Federation are useful results of production activities that meet certain needs of citizens for a fee, but not embodied in the material form. They are the object of purchase and sale and are sold at prices that fully or significantly cover the costs of the manufacturer (from the proceeds of sale) and provide him with a profit.

The novelty of the research objectives is also in the development of theoretical and methodological provisions and organizational and economic mechanisms for the development of the culture industry in the regions of the Russian Federation in the form of integrated service complexes, funding mechanisms based on the use of public-private partnership tools that can improve the efficiency of large-scale investment projects in the culture industry through the participation of private business, ensure the development of the industry and reduce the burden on the budget, attract the best management personnel and technologies, improving the quality of services to end users, focusing the attention of public authorities on their most characteristic administrative functions and reducing the risks of projects by distributing them between a private partner and states.

The main research hypothesis of the article is based on the search for interdependence of socio-economic development of the region from effectiveness of the culture industry and strengthening of cooperation between subjects, it creates prerequisites for the revival of regional

economy and sustainable economic growth. To this end, an analysis of conditions and possibilities of culture industries and their functioning is carried out. The set of organizational, economic and financial mechanisms developed on the basis of these conclusions for support of the culture industry is of particular importance.

Despite the presence of various approaches, developments, methods and indicators, there is no generally accepted methodology, research tools and organizational and financial support for the culture industry in the Russian practice. Research in this area is just beginning to develop and it is of considerable scientific and practical interest.

Aspects of relationships of cultural institutions with key players in the region have not been studied enough; this leads to the fact that the problems of the development of the culture industry at the systemic level are unexplored. The high degree of novelty of results is also due to the fact that this work is a pilot study.

Literature Review

Research Framework

Economics, organization and management in the culture industry represent a relatively new direction of research and, above all, they have received theoretical and practical justification in the studies of foreign scientists. Since the mid-twentieth century and further a new social, economic and cultural significance of the culture industry was formed in modern society, which became the basis of the “age of cultural production” studied in the works of D. Hesmondalsh (Hesmondalsh, 2002).

The model of business structures of culture industries is studied in the works of P. Bourdieu and consists of “concentrated circles, there is the art industry in the center, and all the rest form their layers or circles, located around the center, extending further as the use of creative ideas is included in a wider production context” (Bourdieu, 1993).

In the works of D. Throsby, a centralized model of culture industries is presented and it includes two main circles (Throsby, 2013). In V. Benjamin’s classic essay, the progressive potential of the culture industry is seen in the spread of mechanization and mass production in the field of culture, he links this process “with the increasing importance of the masses in modern life”, characterized by “a tendency to overcome the uniqueness” and considers it potentially progressive (Benjamin, 1993).

Also in foreign literature the concepts of “culture industry” and “mass culture” are differentiated (Adorno, 2003), (Bernstein, 2008). Cultural artifacts are now subject to the logic of profitability and capital accumulation with greater regularity (Heikkilä, Lauronen & Purhonen, 2018). The critical potential of intellectual culture is undermined by conformist or “affirmative” products of the culture industry, which facilitate adaptation of individuals to capitalism, using various techniques: “standardization”, “pseudo-individualization” (introduction of minor plot differences, obscuring the general formula), “reaction mechanisms” (off-screen laughter, guaranteeing the “proper” response of the audience) (Adorno, 1954).

The role of state support in stimulating the development of creative industries at the national level is presented in the experience of the United States, Great Britain, Germany, Switzerland and the Netherlands (Lähdesmäki, 2016), (Perry, Smith & Warren, 2015), (Harvey, 1989).

Mapping of creative industries (map of creative industries) with recommended categories of creative industries is presented on the example of programs in the UK, Germany, Austria, Spain (Newbigin, 2011).

The role of the creative industry in the development of the urban environment and economic attractiveness of the region, the development of art clusters and art zones, ratings of economic attractiveness of cities and countries, branding of the territory, as well as global and local examples of implementation are studied only in foreign works and on the example, mainly, of the European economy, without adapting it to Russian reality (Kotler & David Gertner, 2002), (Graeme-Evans, 2004), (Papadopoulos & Heslop, 2002).

Case Study

Innovative component in the culture industry

Methods

In the 1990s, in European countries, the economic effect of functioning of cultural sectors was directly used to create investment attractiveness of crisis regions, jobs. However, the overall dynamics of total paid services of the Russian Federation in 2017 shows a sharply negative value in terms of volume, and the indicator with the exception of the seasonal factor fluctuates at about the same level since 2016 (Federal Service of State Statistics). The practice of increasing competitive advantages of regions through the culture industry can provide 5-15% growth in gross regional product (GRP) (Fesel, Söndermann, 2007).

This study suggests a management methodology based on synthesis of complex systematic and synergetic approaches. If complex and systematic approaches determine the need to take into account all factors and their dynamics, the synergetic approach provides for integration of elements that form a complex (integrated) potential of the cultural sphere. The approach to integrated capacity building can be expressed by the following formula:

$$CP = f\{Isoc; Ekp; Einf; PRp; Pk\}, \quad (1)$$

where Isoc – social potential; Ekp – economic potential; Einf – information potential; PRp – resource (infrastructure) potential; Pk – cultural potential.

Each of the potentials requires assessment (calculation and measurement) and further specific decision on each subject of the sphere of culture.

The author considers that it seems appropriate to introduce a new indicator –integrated potential of the culture industry, consisting of interrelated indicators: economic, social, cultural, information, resource (infrastructure) potential. This will provide the most objective and complete assessment of unused sources of competitiveness of the study area. In addition, the multiplicative effect of realizing the potential of the culture industry will be taken into account; it consists in growth of primary employment directly in this segment of service markets, as well as job creation in interrelated industries, reducing costs in the search and employment of qualified specialists.

According to the formed system of indicators for assessing activities of cultural institutions, they are divided into two groups – economic and social indicators, but they do not take into account specifics of the subject of logistics support and cultural components of

functioning of the culture industry. It is possible to group indicators for assessing potential of the culture industry into three groups: economic, social and cultural indicators (table 1).

Table 1. Grouping of indicators for calculating the potential of the culture industry

Group of indicators (author's)	Groups of indicators	Content of indicators
Economic potential	1. The level of actual provision of cultural institutions in the urban district (municipal district) of the regulatory needs, %	1. A population proportion who are users of public municipal cultural institutions in municipal districts (urban districts), % of the total population 2. Total expenditures of municipal budget on culture, including the volume of budget investments to increase the value of fixed assets, expenses on payment of wages and labor costs (thousand rubles). 3. Satisfaction of population with the quality of services provided in the culture sector (quality of cultural services) (% of respondents) 4. The number of new programs, activities in public municipal cultural institutions per 1 thousand people, units. 5. The number of activities in the public cultural institutions per capita, units.
Economic potential	2. Total expenditures of the budget of the municipality on culture, including the amount of budget investments to increase the cost of fixed assets, labor costs and payroll, thousand rubles.	2. The number of club groups per 1.000 inhabitants, units
Economic potential	3. The proportion of the population participating in paid cultural and leisure activities organized by local governments of urban districts and municipal districts, %.	3. The total number of cultural and leisure activities per one club institution, units. 4. A population proportion involved in the work of club formations and amateur associations, %. Calculation formula: $I = A_{16} / P \times 100$, where I – an indicator: a population proportion of urban districts and municipal districts engaged in club formations of cultural and leisure institutions, %; A ₁₆ – the value of the number of participants in the club formations (people) column A ₁₆ of the form 7–NK Rosstat; P – population of urban districts or municipal districts, people.
		5. The level of efficiency of transport and logistics infrastructure: • Continuity of the production process, measured in the number of operations and cycle time. (S details*T cycle time/R reject) • The uniformity of the optimal level of reserves (according to the Pareto principle) without overstocking, downtime and failure. Axes are the times of entry and exit of goods according to the FIFO at a given cycle of production and consumption of stock by the product group.

		<ul style="list-style-type: none"> • Production downtime and product flows. • Waiting time for shipping. • Accuracy of performance of predictions and discrepancies between planned and actual indicators with modeled optimal statistics. • Cost of storage. • Processing speed of pallets (finished goods storage) for each warehouse operation. • Transport cost per unit of output/service.
Social potential	Create conditions for leisure activities and provide the residents of the settlement with the services of cultural organizations	<p>1. Attendance of paid cultural and leisure activities carried out by state and municipal cultural institutions per year, units.</p> <p>$P = P \text{ recreational activities} + P \text{ museum} + P \text{ theatre} + P \text{ cinema} + P \text{ park} + N \text{ annual average number}$</p> <p>$P$ – attendance of paid cultural and leisure activities carried out by municipal cultural institutions;</p> <p>P recreational activities – the number of visitors of cultural and recreational activities ;</p> <p>P museum – the number of museum visitors, total;</p> <p>P theater – the number of activities visitors (carried out by the theater and the forces of third-party organizations in the theater and within its territory);</p> <p>P cinema – the number of movie visitors;</p> <p>P park – the number of recreation parks visitors (city garden);</p> <p>P recreational activities – the number of events visitors held by concert organizations, an independent team and the forces of third-party organizations within its territory;</p> <p>N annual average number – the annual average number of permanent population of stakeholders.</p>
Social potential	2.Satisfaction of the population with the quality of services provided in the field of culture (the quality of cultural services) (percent of the number of respondents)	<p>2. The share of expenditure of consolidated budget of city districts or municipal districts on culture, %.</p> <p>Calculation formula: $SC=BC/CBmd \times 100$,</p> <p>Where SC – the share of expenditure of consolidated budget of city districts or municipal districts on culture, %;</p> <p>BC – expenditure of consolidated budget of city districts or municipal districts on culture, thousand rubles.;</p> <p>$CBmd$ – consolidated budget of city districts or municipal districts, thousand rubles.</p> <p>3. The expenditure of consolidated budget of city districts or municipal districts, aimed at strengthening the material and technical base of cultural institutions, thousand rubles.</p>
		<p>4. The total number of club formations of amateur folk art per 1000 inhabitants, units.</p> <p>5. The expenditure of consolidated budget of city districts or municipal areas directed on the support of national art crafts and club formations of folk art, thousand rubles.</p> <p>6. The level of actual provision of municipal cultural institutions in the urban district or municipal district of the regulatory needs, %:</p>

		<p>a) recreation parks; b) clubs and club-type institutions. 7. The expenditure of consolidated budget of city districts or the municipal areas on wages of employees of cultural institutions and cinematography, thousand rubles.</p>
Social potential	3. Other issues of regulation in the sphere of culture, in accordance with the current legislation	<p>8. The share of students of municipal institutions of additional education in the sphere of culture (music, art schools for children) of the number of students of secondary schools, grades 1-9, % 9. The share of municipal institutions of additional education in the sphere of culture (music, art schools for children) transferred to normative per capita financing; 10. The number of employees of cultural institutions (by types of institutions); 11. The share of specialists of municipal institutions of culture and art who have undergone training and retraining within one year to the total number of specialists of municipal arts and cultural institutions, %.</p>
Cultural potential	1. Protection and preservation of cultural heritage (historical and cultural monuments) of local significance, safety of buildings and premises of municipal arts and cultural institutions	<p>1. The level of actual provision of cultural institutions in the urban district (municipal district) of regulatory needs (percent): a) recreation parks; b) clubs and club-type institutions. 2. The share of registered protection obligations of users and owners of cultural heritage objects (except for archaeological monuments) in % of the total number of cultural heritage objects included in the Unified Register of objects in the territory of city districts or municipal districts. 3. The share of objects of cultural heritage (historical and cultural monuments) in satisfactory condition of the total number of objects of cultural heritage, %. 4. The level of certification of objects of cultural heritage in the territory of city districts or municipal areas. This indicator = the number of objects with passports / total number of objects of cultural heritage of the Unified Register of objects of cultural heritage in the territory of city districts or municipal areas. The indicator reflects the control over the implementation of the Federal law "On Protection of Cultural Heritage" and registration of passports in accordance with the Order of Federal Service for Supervision of Law Observance in the Field of Protection of Cultural Heritage No. 100 (21 June 2010). 5. The premises proportion of municipal cultural institutions (in a satisfactory condition), % 6. The expenditure of the consolidated budget of the city district or municipal district on the protection of cultural heritage, restoration, conservation and repair of cultural heritage, thousand rubles.</p>

		7. The expenditure of consolidated budget of city districts or municipal areas on capital repairs of municipal institutions of culture and cinematography
Cultural potential		8. The number of municipal targeted programs on development of cultural sectors, implemented in the urban district or municipal district. 9. The volume of expenditures of consolidated budget of city districts or municipal districts on the planning and implementation of municipal programs for development of cultural sectors. 10. The total number of applied research in the field of culture, cinematography

International systems of indicators of CI assessment explore potential of developed countries; therefore, they do not take into account a number of factors, specific to the formation of this sphere of activity in the Russian Federation. It is necessary to adapt the considered indicators based on a number of factors affecting the effectiveness of applied improvement processes and socio-economic development of the country (table 2).

Table 2. Main factors for assessing the potential of CI subjects

№	Factors	Indicators
1	Economic	Budget expenditure on culture; The level and rate of inflation; The structure of funding for culture from extra budgetary sources (from income-generation activities, from the rental property, etc.); The unemployment rate in the entities of the Russian Federation (municipality); Opportunities of the service market of culture in this region (municipality), reflecting its development, which is characterized by the number of state cultural institutions by types of institutions and services; The volume of services (by types of services) in the sphere of culture (free of charge, on preferential grounds, on a paid basis); Presence or absence of competitors; The standard of living in the entities of the Russian Federation; Tax policy at the regional and local levels of government.
2	Political	Progress in public administration reforms; Legislative activities on the establishment and functioning of autonomous institutions; Cultural policy of the state..
3	Social	Number of target categories of consumers of cultural services; Expenditures of the population on culture; Public demand for cultural services; Cultural expectations in society, cultural values inherent in the population.
4	Informational	Introduction of information and communication technologies in the field of culture; Improvement of management technologies; Development of technologies in the field of financial management and budgeting.

However, the calculation and analysis of such indicators in domestic practice is limited both by the lack of relevant information (especially at the regional level) and by the lack of methods for their calculation. There is also no scientific justification for the necessary and

sufficient number and composition of indicators that assess the integral potential of the socio-cultural sphere.

Paper results

Integrated service complex

The implementation of this model of a set of factors is possible through the development and application of the organizational and economic mechanism (OEM) to support the culture industry (CI). The research of principles of formation and practical implementation of the OEM to support the system of CI services can ensure the development of the service industry as a whole and it will improve the efficiency of the system of socio-cultural services of undeveloped entities of the Russian Federation. The specificity of culture industries and its high competitiveness reaffirms the need for creating *integrated service complexes* (IntegSC) (Malshina, 2012). IntegSC may be considered in the form of autonomous organizations involved in the stakeholder system consisting of agents, requirements, mechanisms, and rules of activities. Then actions of management of state (municipal) cultural institutions are focused on interests of different groups of stakeholders, contributing to maximization of profits in accordance with the priorities of social policy, it demonstrates a convergence of interests between the service sector of culture and the state. In this case, IntegSC as a multi-actor, multi-purpose system transforms individual goals of subjects in the unified activity, making a profit. Integrated service complexes of the culture industry can implement the functions of social responsibility of business.

The formation of integrated service complexes is based on the compliance with a whole range of business interests, financial and information structures of service providers, consumers, regional and local government agencies and other stakeholders. The identification of localized partners and end-users in the culture industry is a fundamental task of creating integrated service complexes. Financial interests consist in the search of organizational structures providing uninterrupted supply, production and provision of services subject to the cost reduction of flow processes. The fulfillment of these interests is reduced in providing joints of various types of flow processes within the integrated service complexes. The quantity and quality of cultural services should meet market needs.

The interaction of integral flows in the form of completed services and consumers is implemented on the stage of direct culture services in integrated service complexes, involving time when consumers and producers meet.

The number of combinations between the elements of the integral flow can be found by the formula (2)

$$C = n(n - 1), \quad (2)$$

where n is the number of elements within the system.

The totality of connecting elements based on external and internal elements for the system is an order of magnitude greater than their number. The characteristics of elements of environment and its internal environment elements (service flows), surrounding service system, can be represented as a function of entropy distribution:

$$S = f \ln f, \quad (3)$$

where f is the number of degrees of freedom.

Entropy for socio-economic systems can be found by the formula of A. Lyapunov. Under some very general conditions, it turns out that this sum of socio-economic phenomena has a distribution close to normal, although each of the terms may not be subject to the law of probability distribution (Pontryagin, 1974). The concept of entropy is associated with the optimal use of the system of available resources, as their organization and functioning increases the efficiency of the entire system. Optimality is the degree to which the system uses resources, that is, the ratio of resources to be consumed to the resources actually consumed.

This model will allow to form the development mechanism of services of the culture industry which is based on organizational, behavioral, technical interrelations, and also to develop measures of the state policy for realization of this form of logistic support of the industry of culture in modern economy, increasing competitiveness of each organization.

Integral flow industry culture

The state interest in the creation of integrated service complexes is to provide the regulatory framework for creation and use of integrated service complexes, standardization and licensing of services, as well as to provide the necessary resources to the consumer sector of the economy. The interest of Russian constituent entities in creating IntegSC consists in expecting income from the operation and placement of integrated service centers, generating employment and standard of living of the local population, improving the ecological environment.

The creation of organizational structures of the integrated service complex includes two stages:

1. preparation of spatial distribution, development of feasibility studies, investment projects and business plans of participants (with documentation support);
2. structural and functional content that unites all participants in a single system of services. The investment project involves co-founders and federal or regional administrative bodies on the principle of public-private partnership.

The main functional task of integrated service complexes should be optimization of business processes through contracting, including all operations to create and provide services to the end user with implementation of operational control at any stage. Achieving this goal is possible on the basis of information interaction between all participants of the business process.

As a result, the components of the process of providing cultural services in integrated service complexes include:

1. Internal logistics: data collection, service, work with clients and staff, etc.;
2. Marketing: promotion and sale of tickets and services, related products, advertising, information support, preparation of proposals, etc.;
3. External logistics: order processing, delivery of tools and personnel, reporting;
4. Provision of services: direct contact between the consumer and the producer of services as a result of the implementation of cultural services;

5. Post-realization service: customer support, customer feedback, claims management, repair, etc.

Based on the potential of a particular support subject, the following types of support are selected: infrastructure development; resource flow processes management; social capital; innovation climate; information support; supply (tools, advertising and space, etc.); these types of support can be carried out by both state and non-state organizations and enterprises of various sectors of the economy.

Connecting the stages of the process of providing services and culture, the support matrix for provision of cultural services (table 3), demonstrating connection between measures and culture services and the process of provision of cultural services to the culture industry has been developed.

Table 3. Matrix of organization and support measures for cultural services

<i>Supporting institutions</i>	<i>Support measures</i>				
	<i>Internal logistics</i>	<i>Marketing</i>	<i>External logistics</i>	<i>Provision of services</i>	<i>Post-realization services</i>
State organizations	Development programs of line ministries	Mass media	Development programs of line ministries	Public-private partnership, public programs	State development institutions
Commercial organizations	Private grants, venture funds, seed funds	Private firms, banks	Private grants, venture funds	Corporate and shopping centers, private equity funds	Private grants, venture funds
Non-profit organizations (grantees), public sector	Grantmakers, sponsors, trade unions	Public organizations, trade unions	Grantmakers, sponsors	Professional associations and unions	Public organizations, trade unions, grantmakers, sponsors

Depending on specifics of branch systems of a particular subject, the structure of matrix may change.

In this sense, services of the culture industry are an innovative product and there is a qualitative relationship between the provision of services, profit and the life cycle of cultural services and measures to support the services of the culture industry.

Currently, there is a need for new forms of interaction between government agencies, public organizations, non-profit organizations and the business community. These support measures can lead to the creation of conditions for attracting investment, improving the competitiveness of cultural services, the efficiency of the culture industry, the modernization of the infrastructure of the Russian Federation, improving the quality of cultural services.

Increase of efficiency of culture industry and its functioning

The initial stage of improving efficiency of functioning of CI as a sector of the economy is the definition of indicators for calculating potential in value terms. The system of indicators for calculating potential of the culture industry in value terms takes into account the objectives of

socio-economic development of the country, the means to achieve them and the results obtained, as well as economic and social effects. According to the author, it is possible to determine the indicators of the potential of the subject of CI by combining the most important factors of assessing the possibility of creating cultural institutions in this municipality and their further functioning, and then we can calculate them in value terms.

According to these generalized factors, it is possible to assess the potential of the entity of the Russian Federation for the functioning of organizations of culture industry in accordance with the proposed procedure. Further study and evaluation of the potential of the culture industry in Russia is impossible without taking into account regional peculiarities, as there are different conditions of economic, social and cultural development in different entities of the Russian Federation. Thus, for the data-processing according to a uniform standard, the Ministry of Culture of the Russian Federation has developed and approved the main indicators of the activities of cultural and leisure-type institutions (CLI), consisting of two groups: productivity indicators of the CLI in terms of social efficiency; productivity indicators of the CLI in terms of economic efficiency.

For implementation of these calculations on economic and social indicators of efficiency of CLI's activity the heads of ministries of culture of entities of the Russian Federation were offered a technique at the XIII Meeting of Coordinating Council on Culture at the Ministry of Culture of the Russian Federation (28-29 March 2011, Moscow), where approved data are provided and proposed for use. Report forms are approved the main sources for the raw data collection. On the basis of the standard developed by the Ministry of Culture of the Russian Federation it is possible to define indicators of capacity assessment of the culture industry (CI) consisting of groups:

1. Indicators of capacity assessment of CI potential in terms of economic efficiency.
2. Indicators of capacity assessment of CI potential in terms of social efficiency.
3. Indicators of capacity assessment of CI potential in terms of cultural efficiency.
4. Indicators of capacity assessment of CI potential in terms of information technology efficiency.

Traditionally, the main type of assessed potential is economic potential. According to statistics, it is possible to calculate the economic potential of the culture industry in terms of value. To determine the significance of each of the indicators in the final indicator in the first approximation, one can estimate their average values. The greater the average value of a single factor calculated by a large number of units of observation, the more significant the value of this indicator and makes a notable contribution to the final result.

If in the sphere of economy the criterion of efficiency is indicators of economic efficiency – the ratio of costs and benefits, then in the cultural sector this evaluation scheme is only partially applicable.

Accepting the value of creative industries, culture industries and their need to transform external environment, public spaces, we must not forget their borderline status at the intersection of economy and culture.

The calculation of the economic potential of culture industries, in our view, is possible by means of 4 indicators:

1. The indicator of economic potential of cultural institutions
2. The indicator of family consumption
3. The indicator of household savings
4. The indicator of economic status of families.

Socio-cultural resources are added to material and technical resources and they often dominate. Non-material resources of the range of cultural services are expressed in qualitative indicators – creativity, spiritual and intellectual costs of the creator when producing a work of art that forms a museum, music collection, etc.

To solve the management problems of the culture industry, there are criteria expressed in quantitative terms, quite amenable to calculation.

It is also possible to calculate the quantitative indicators of the existing social potential of the culture industry using 5 indicators:

1. The indicator to measure the standard of living of families;
2. The indicator to measure consumption of additional socio-cultural services;
3. The indicator to measure the level of employment/free time;
4. The indicator of mortality;
5. Birth rate indicator.

It should be reminded that only “institutional” and “materialized” potentials can be assessed. The “assimilated” cultural potential is not quantifiable and it is expressed in qualitative terms. In the study, the quality is considered as the degree of utility of the value of services, i.e. the degree of its compliance with the needs, suitability to meet the need for specific economic conditions.

According to the author, it is possible to calculate the potential of the functioning of cultural institutions or the cultural potential of the CI in value terms by 5 indicators:

1. The indicator of provision of cultural services
2. The indicator of consumption of family cultural services
3. The indicator of educational level of family members
4. The service update indicator
5. The indicator of access to cultural services

At the final stage of capacity assessment of the culture industry on the basis of generalizing indicators, it is possible to calculate an integral complex indicator of potential of this sphere.

Discussion

To clarify the possibility of implementing the author’s economic and mathematical model in a particular subject, it is necessary to make calculations based on the data of a particular subject, which can vary based on the indicators of social, economic and cultural potential of the subject. It has been estimated by the state statistics of Saratov region – this region has integrated potential for realization of author’s economic-mathematical model support the culture industry, it provides an opportunity for the further development of the toolkit support mechanism of the services of the culture industry. According to the results of the study, it is possible to form a matrix of SWOT analysis of the culture industry institutions (table 4).

Table 4. SWOT-analysis of the culture industry of Saratov

		External environment		
		Opportunities	Threats	
		<ul style="list-style-type: none"> • Tax incentives; • Access to new regional markets; • Economic stability; 	<ul style="list-style-type: none"> • A rise in the inflation rate; • New technologies of competitors; • Changes in demand; 	
Internal environment	Strong	<ul style="list-style-type: none"> • Multidimensional character of activities; • Good reputation; • High quality service; 	<p>Further development of the organization:</p> <ul style="list-style-type: none"> • Formed customer base is maintained; • The growth of quality, volumes and the range of services, favorable policy of the state; • The quality and range of services contribute to new markets entry; 	<p>Threat prevention:</p> <ul style="list-style-type: none"> • Cost optimization; • Development of new service programs; • Participation in international projects and programs; • Attracting investment and private financing; • Information support; • Application of new service technologies; • Incorporate perspectives of competitors;
	Weak	<ul style="list-style-type: none"> • Seasonal fluctuations; • Lack of experience; • Uncertainty of initial goals and objectives 	<p>Reducing the impact of weaknesses:</p> <ul style="list-style-type: none"> • Highly experienced management; • Individual approach to each order; • Expansion of the list of additional services 	<p>Anti-crisis actions:</p> <ul style="list-style-type: none"> • Effective marketing policy; • Redistribution of basic and additional services; • Expanding the potential customers outreach; • Improving the skills of the management structure;

The calculation of potential of the culture industry in value terms serves as the basis for development of organizational mechanisms and makes it possible to calculate effects of implementation of the program to support the culture industry defined at the time of the program. The integral effect can be expressed by the following formula (Novikov, 2012):

$$W_{i=1}^n(C) = \sum_{k=0}^k (\sum^k Q(C_0) + \Delta^0(C_i^k, \dots, C_i)) + \Delta_n(C_n^k, \dots, C_n), \quad (8)$$

where $W^k(C^k)$ – the effect achieved by k-subsystem in its separate functioning in the case of own production, implementation of transport operations for transportation of consumers

or producers of cultural services; $\Delta (C_i^k, \dots, C_i^k)$ – the synergetic component of the integrated effect due to interaction of subsystems; $\Delta_n (C_n^k, \dots, C_n^k)$ – the synergetic component of the integrated effect of the system, due to cooperation with independent companies; n – the number of companies with which the interaction is carried out; C – systems; k – subsidiaries (integrated) companies; $W(C)$ – the integrated effect.

In this case, it is possible to consider the impact of support for the culture industry on the quality of life (the level of consumption of material, cultural and social goods, estimated mainly by the volume of gross domestic product per capita and the level of social stability of society), on competitiveness of the state.

Conclusion

Unified object management of provided paid and free services of culture in integrated service complexes on the basis of public-private partnership allows reducing budget expenditures for cultural services, controlling the ratio and quality of free and paid services, increasing the profitability of producers of services, realizing the internal reserves of enterprises of the culture industry.

Creation of a new type of autonomous organization of culture – an integrated service complex, allows achieving a practical result expressed in the combination of different forms of ownership and management within the same organization, therefore, it attracts different sources of funding and improves the efficiency of operation and profitability. Financial independence of cultural organizations creates the conditions for a combination of different activities, the involvement of partner organizations both Russian and foreign service providers.

As a result, the funding of services of the culture industry on the basis of public-private partnership, based on the proposed differentiation of the potential of services of the culture industry and their effects, it will take into account both social interests and economic benefits of each specific subject of cultural activity (Malshina, Bryntsev, 2017). Subsequently, the solution of optimization tasks will increase efficiency of the system of cultural services.

Further global integration of society, culture and business requires new mechanisms to ensure the development of the culture industry in Russia, taking into account the world experience of development, maximum use of resource potential and the adoption of proven organizational and economic mechanisms for managing the development of the culture industry.

Currently, the lack of development of organizational and economic forms and insufficient development of support mechanisms and strategic development of the culture industry hinders the development of this sector and the structure of sources of social and cultural projects funding of the Russian Federation reveals the imbalance between the public and private sectors, and the asymmetry between needs and opportunities of these projects funding. The culture industry is becoming attractive for investment through the development of project activities, organizational and economic support mechanisms in the form of integrated structures, clusters and service complexes, as well as through the development of mechanisms for its funding: multi-channel financing of culture and public-private partnership, which will create prerequisites for the emergence and implementation of new ideas and projects in the field of culture, contributing to its formation as a full source of state revenue. These aspects of the development of the culture industry are of paramount importance and require practical implementation, which confirms the novelty and high relevance of this study.

The relevance of findings consists in the following significant developments that allow finding solutions to organizational, economic and financial problems of the culture industry and

can increase its contribution to the economic development of the regions and the Russian economy as a whole:

- the degree of development of the service market and analysis of the main indicators of the culture industry for use in the creation of integrated service complexes, which allows organizing a multi-level system of customer service, optimization of the structure and service manufacturers;

- new organizational and economic mechanisms for the provision of services to the culture industry have been developed to ensure the sustainable development of this sphere;

- mechanisms of integrated service complexes in the culture industry have been created;

- ways to improve the efficiency of the system of services of the culture industry.

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