REVISTA ESPACIOS

Transformation of museum product

Transformación del producto museístico

VISHNEVSKAYA, Ekaterina V. 1; KOROLEVA, Inna S. 2; SLINKOVA, Olga K. 3; KLIMOVA, Tatiana B. 4; GRIGORENKO, Svetlana E. 5

Contents

ABSTRACT:
Today, each museum needs to develop an active strategy of market development, which is preceded by a comprehensive analysis of potential consumers of the museum product, on the basis of which the directions of development will be proposed. The conducted research allowed us to reveal a number of problems which are connected with necessity of transformation of the museum product providing satisfaction of visitor's requirements and, at the same time, increase in the income of the museum.
Keywords: museum, museum product, information technologies

RESUMEN:
En la actualidad, cada museo necesita desarrollar una estrategia activa de desarrollo de mercado, precedida por un análisis exhaustivo de los consumidores potenciales del producto del museo, sobre la base de los cuales se propondrán las direcciones de desarrollo. La investigación realizada nos permitió revelar una serie de problemas relacionados con la necesidad de la transformación del producto del museo que satisfaga los requisitos de los visitantes y, al mismo tiempo, aumente los ingresos del museo.
Palabras clave: museo, producto de museo, tecnologías de la información

1. Introduction

Modern museums provide a diverse range of museum products and services: exhibition activities, expositions and their interpretation; excursions, master classes, lectures; conferences, seminars and additional museum products. Having studied the views of various researchers on the museum object, we can confidently say that, taking into account the modern world realities, it is advisable to call it a museum product, based on its main characteristics and structural and functional features (Rentschler & Gilmore, 2012; Coelho *et al*., 2016). A museum product is a set of basic and additional museum services and goods that are offered to museum visitors. It should be noted that the most part of the museums of the Russian Federation do not seek to transform a museum service into a museum product. This is due to several reasons. First, the poverty of the museum product assortment in domestic museums is due to the fact that in Russia the museum product is considered only as a service. The second reason for the weak development of the museum product is related to the attitude to the production of museum goods as an optional commercial activity. The third reason is the lack of creative approach to the product. In the list of museum services, as a rule, there is a group tour and the range of goods in the museum store is limited to books, magnets and reproductions. Low conversion of the visitor into the buyer is connected with underdevelopment of trading technologies, i.e. inability to sell. For example, the standard assortment of museum shops in France is about 1,000 items.

Nowadays Russian museums are the most accessible and dynamically developing public institutions performing the functions of collection, preservation, study and presentation of cultural heritage (Aksenova, 2014).

The main directions of state support for the development of the industry were equalization and expansion of opportunities for access of different groups of citizens to cultural values, further informatization of the

industry, strengthening of the material, technical and resource base as centers of preservation of unique monuments of national and world cultural heritage. The impressive annual dynamics is demonstrated by the indicators of Russian museums attendance. This is due to the following objective factors: the new functions of the museum, a new model of relations "museum-visitor" and the growth of attendance for the economy of the museum (Bradford, 1994; Amenta, 2016; Ivanov, 2017).

In the Russian Federation, 2,742 museums were operating in 2016; compared to 2015, there was a decrease of 16 museums, but, in general, during the analyzed period of 2008-2016, the growth was 9,9% or 247 new museums were opened (figure 1).

Figure 1
Number of museums and their visits dynamics
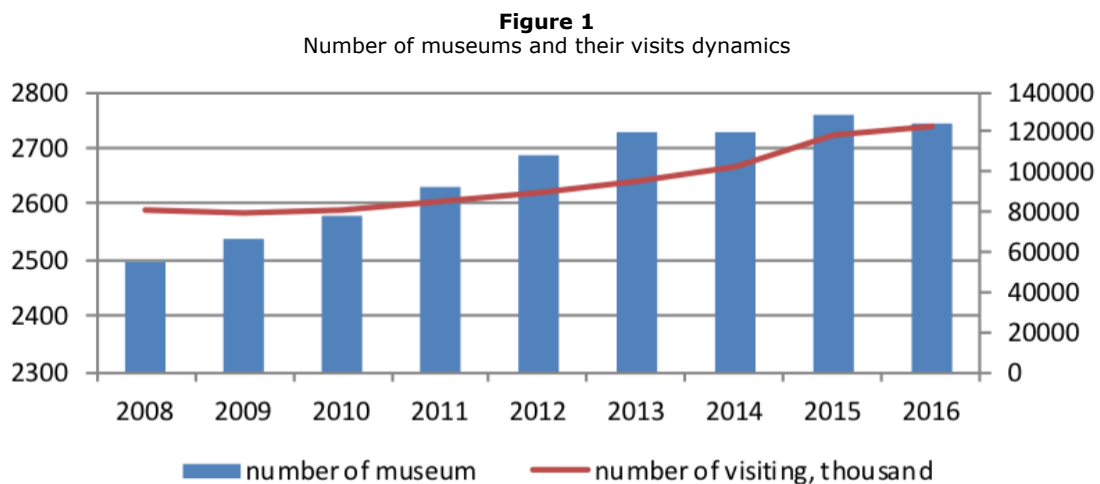
Note: compiled by authors based on the Federal Public Statistics Service https://www.gks.ru/storage/mediabank/rus18.pdf

Analysis of statistical data on museums attendance in Russia allows us to come to the following conclusions. In 2016, for the first time, a number of museums were closed. The number of museums has traditionally increased since 2008 till 2016, and their number increased by 247 museums, but the dynamics of growth varies each year. So the maximum increase was observed in 2012, when 56 new museums were opened. In 2015, museum visits increased by 39%. Revenues also increased: the five-year increase from paid services at Federal museums amounted to 123%. The analysis of the dynamics of museums visits showed an annual increase in visits during the analyzed period, the maximum annual increase was observed in 2015 (15,95%) or 16,375 million of people. In 2016, 123,555 million of people visited museums in Russia. The structure of museum's visits shows that 34-39% are group visits , individual visits respectively 61-66% (Russia in figures, 2018). It should be noted that the share of group excursion museum's visits is decreasing, so if in 2008 their part in the structure was 39,26% or 31,713 thousand visits, in 2016 it amounted to 44,403 thousand rubles or 35,94%.

One of the indicators of museum's consumer demand was an increase by 31,2% in the number of mobile exhibition projects in the territories of the Russian Federation (676 exhibitions were implemented in 2017; 515 in 2011) (Russia in figures, 2018). At the same time, the monitoring shows that the weak material, technical and resource equipment of the sites, the difficult accessibility of many settlements and the insufficient financing of regional museums limit the possibility of organizing of painting and drawing original works exhibitions in small towns and rural settlements, allowing only copies and photographs to be exhibited (State report, 2017). The growth of public interest in museums and museum exhibitions can be supported through the development of new technologies of museum business, increase of communication activity of museums, modernization of their material and technical base, and creation of virtual museums (currently, 246 virtual museums/excursions are placed on the portal "Culture. RF" https://www.culture.ru/) (Koveshnikov, 2014).

Currently, the museum network of the Belgorod region is represented by 44 museums (of which 11 are branches): 6 state museums (with 1 branch) and 38 municipal museums of the region (with 10 branches). During this year, 51,687 items were exhibited in permanent and temporary exhibitions, which is 26% of the total main museum's fund. Significant success of the museums of the region was achieved in the organization of exhibition activities. At the end of 2017, the Belgorod region ranked 8th among the subjects of the Central Federal district in terms of the number of exhibitions held (on average, in the Belgorod region, 28 exhibitions are organized per museum). Analysis of museum visits of the Belgorod region showed that in 2017, 1 016,3 thousand people visited museums, of which 40% or 408,9 thousand people came to the museum on their own, and 60% or 607,4 thousand people did it with an excursion group. On average each museum in the Belgorod region accounts 833 excursions and, among the Russian regions, ranks 19th on this indicator. And the part of excursions in the general structure of the visits is 59,8%, so according to this indicator the region is located on the 9th place. Also in 2017, 13,907 lectures were held in museums of the Belgorod region.

The main source (71%) of funding for the museums of the Belgorod region is budget allocations. Labor remuneration is 26,97% in the structure of expenditure of museums in the region; informatization of

museums activities accounts for only 0,07% of expenses (figure 2).

Figure 2
Number of visits and exhibitions held
in museums in Belgorod in 2017

Note: compiled by authors on the basis of the Federal Service of State Statistics of the Belthe region

The problems facing museums include: lack of modern specialized infrastructure for storage and public presentation of museum objects; outdated material and technical base; low level of use of modern information technologies. Today, each museum needs to develop an active market development strategy, which is preceded by a comprehensive analysis of potential consumers of the museum product, on the basis of which directions of development will be proposed. It is necessary to identify key points in the work of the museum with visitors in order to improve the quality and availability of services.

For this purpose, we conducted a study of the museum product's consumers in Belgorod in order to compile a social portrait of visitors, determining the target orientation and identifying the level of compliance of information services to their expectations, for the subsequent development of priority directions of the museum activities and development, increasing the availability and quality of museum services and products.

2. Methodology

The official statistical data characterizing the development of museums in the Russian Federation and the Belgorod region, analytical reports of research on trends in the development of information technologies in museum activities were used as a source material. Theoretical and comparative analysis was applied as the research methodology.

Quantitative and qualitative methods of sociological research were applied. The survey and meaningfull interpretation of the data were conducted. The target group of the study was individual visitors (50 people) and museum staff in contact with the public (10 people). The structure of the study includes the following aspects: social portrait (gender, age, education, frequency of visits) of the audience and visitors of the museum at the time of the study; awareness of the museum and its activities; expectations of museums visitors, satisfaction of visitors with the museum's activities, motivation for visiting museums. Analyzed period: 2008-2016. A significant proportion of visitors to Belgorod museums are women (61%). The age of the survey participants was initially divided into several age groups (under 15 years, 16-20 years, 21-35, 36-45, 46-60, over 60). The study also used data from state statistics and reports from the Ministry of culture of the Russian Federation.

3. Results

The predominant group was the age range from 21 to 35 years (34%). It should be noted age groups 36-45 and 16-20 (14%) and before 15 years old (25%) (Table 1).

Table 1
Characteristics of Survey Participants

Criteria	Percentage, %
Age	
up to 15 years old	25
16-20 years	14
21-35 years	34
36-45 years	14
45-60 years	10
More than 60 years	3

gender	
female	61
male	39

For almost a third of respondents (38%) in this study, visiting the museum occupies a significant place in their leisure activities. However, a third of respondents (23%) are those who first visited the museum. The last two groups are potential visitors to the museum. Potential visitors to the museum include 39% of respondents; this group of respondents visits the museum once a year (Table 2).

Table 2
Frequency of museums visits

Characteristic	Percentage, %
Visiting the museum for the first time	23
Once a year	39
3-4 times a year	36
5 and more times a year	2

The reasons for visiting are interest in history (32%), familiarity with sights (34%) and the third group of respondents is visitors with children (18%) (Table 3).

Table 3
Motivation for visiting museums

Motivation	Percentage, %
interest in history	32
familiarity with sights	34
visitors with children	18
Other reasons	16

Respondents use a rather narrow range of resources to obtain information about museums, exhibitions and exhibitions. The most part of respondents (63%) named their immediate environment as information channels. Unfortunately, the advertising of the museum does not work effectively: some respondents (5%) learned about the museum through the Internet, and 7% of visitors-learned from the media (Table 4).

Table 4
Ways to get Information about the museums

Means	Percentage, %
Internet	5
Friends	63
Mass media	7
Business contacts	16
By chance	9

A significant part (84,1%) liked the exhibits presented in the museum expositions. More than half noted the staff of the museums (Table 5).

Table 5
Satisfaction of visitors with the museum's activities

Criteria	Percentage, %
Exhibits	84
Informative content of the exhibition	34
Cost of services	27
Decorating	36
Work of the Museum staff	55
Technical equipment	21

Visitors (59%) would like to see new museum exhibitions, the other part of visitors (48%) feel the need for tactile sensations and want to touch the exhibits. Visitors have a need to purchase souvenirs depicting museum objects (50%), books, museum publications (25%), photographing in the museum interior or with a museum object (11,4%) (Table 6).

Table 6
Expectations of museum visitors

Variants	Percentage, %
New exhibitions	59
Modern information technologies	11
Possibilities to touch the exhibits	48
Audio guide	37
Game programs	14
Master classes	11
Souvenirs sale	50
Books, museum publications sales	25
Possibility to take a photo	11,4

Thus, the conducted research of preferences of consumers of museum services allowed revealing a number of problems which are connected with necessity of transformation of the museum product, providing satisfaction of visitor's needs and at the same time the increase of the museum income. It follows to offer a "product" that meets the needs of the visitor and distinguishes a particular museum from its competitors. The problem is complicated by heterogeneity of the museum audience.

In this regard, there is a need to develop a concept to improve the organization of visitor services through the industrialization of the museum sphere and the updating of the museum product by means of information technologies. Preserving its main general purpose –the storage and transmission of values and achievements of mankind from the past to the future–, over the past few decades the museum has expanded a number of functions, adding to them the recreation (organization of free time) and communicative functions. Analysis of the results of the survey and other authors' research showed the importance of digital technologies in museums activities (Rentschler & Gilmore, 2012; Gribkov, 2013; Cerquetti, 2017). Let's analyze digital technology as a necessary resource for the development of the museum in relation to the last two functions.

Digitization of museum's collections allows expanding opportunities for visitors, and they can access exhibits from the repositories in electronic form. All this has a positive effect on museum's image and increases the number of visitors. Digitization of the museum collection gives it a number of opportunities,

namely: ensuring the preservation of museum collections; wide access to scientific research and facilitating restoration work through high-quality digital media; translation of the museum fund in digital form for commercial use; providing access to the electronic fund to people who are physically unable to familiarize themselves with the original collection; information support of the main (physical) exposition through access to the virtual collection (Lewis, 1994; Maksimova, 2012).

There are two models of interaction between the exposition and digital technologies directly in the exposition space of the museum: digital technologies play an auxiliary role in the interpretation of the exhibition, support its design and provide additional information to visitors and digital technology (equipment) itself acts as a museum object, replacing the original exhibits. In classical museums, the first model is mainly used, while when creating exhibition projects, new museums increasingly present the exposition itself on digital media (Vishnevskaya, 2017; Machnev & Duklsky, 2018).

The basis of the museum remains as a genuine museum object, while digital technologies can and should convey the context, history and idea of the exposition (Marakos, 2014). Today there are three main directions of using digital technologies in the museum space: technical, conceptual and communicative ones (Shea, 2014; Pulh & Mencarelli, 2015).

It is possible to allocate three degrees of security of a digital museum about the equipment, depending on its complexity. The first degree is the implementation of the basic configuration of the equipment. Simple equipment, such as touch screens or information panels are installed mostly often in Russian museums. In this case, technologies act as auxiliary information resources, including the function of a navigator in the exhibition, but do not play a semantic role in the museum exhibition (Rubino *et al*., 2015). But at the same time, the risk of disruption of this part during the exhibition is extremely small, and the technical problems can be solved by the staff of the museum.

The second degree is the installation of a complex of digital technologies in the museum space. At this stage, the meaning of the exhibition is still focused on the museum object, but at the same time digital technologies expand the information about it (Courvoisier & Courvoisiera, 2018). The introduction of digital technology into the exposition increases its attractiveness and allows to provide the functionality of the museum display.

The third level is the complete digitization of the museum space, turning it into an interactive environment. In this case, there is a formation of a complete digital complex, and the ideological content of the exposition depends entirely on the digital equipment, with the help of which it is transmitted (Gribkov, 2013; Vishnevskaya *et al*., 2017). The exhibitions of this level are filled with digital technologies, which often replace the museum itself. In our opinion the role of digital technologies in museums exhibition activities is shown in figure 3.

Figure 3
Digital technologies in the exposition
activities of the museum
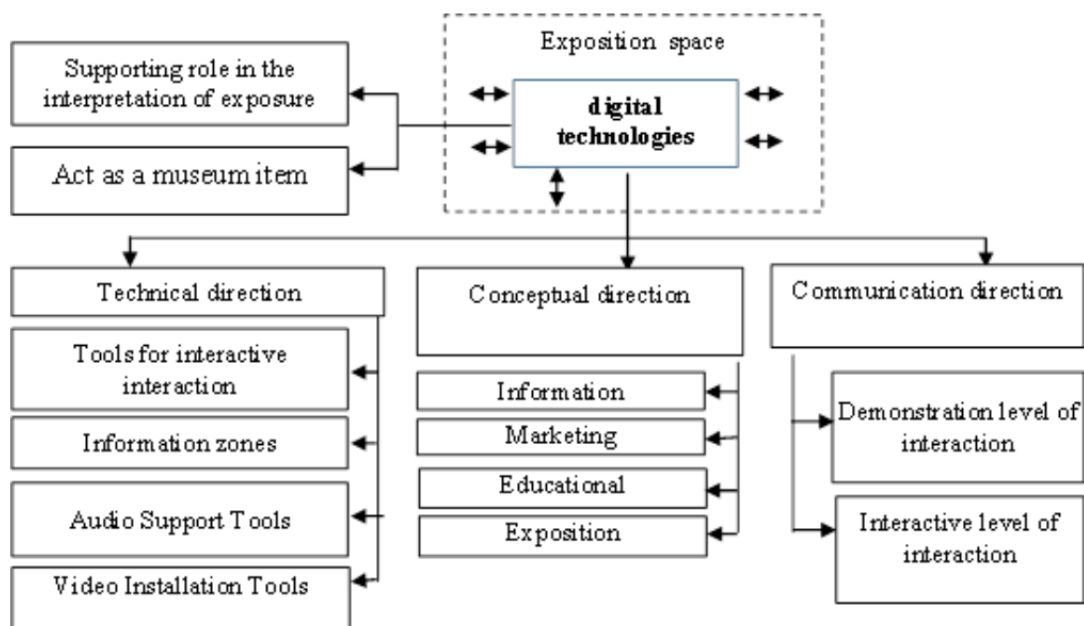
Note: compiled by the authors on the basis of the studied material

Digital means in the museum sphere are used for the content of the exposition of the museum and have a multimedia character (Nikishin, 1999). The multimedia method of presenting information, in contrast to the classical one, can provide more additional information about the exposition, thereby significantly

expanding its context. This can include searching for information on a topic, providing additional information on request, and providing a clear and expressive way to deliver information.

In relation to the introduction of digital technologies in the activities of the museum, the exhibition is considered as a form of basic communication with the visitor (Werner, Hayward & Laroche, 2014). Digital technologies help to develop the main idea, the idea of the exposition, to diversify the information field of the museum object and the entire collection as a whole. Communication direction implies the level of involvement of digital technologies in the information exchange between the exposition and its audience. In this case it is possible to allocate: demonstration level of interaction (a monologue of the museum, direct influence of an exposition on the visitor who "reads" its ideological plan, does not imply receiving feedback); interactive level of interaction (dialogue of the visitor and a museum subject) (Katina, 2014).

The stage of communication development is the stage at which the museum is transformed from an exclusively information field into an attractive system, which successfully combines the information function and the attractiveness of presenting information to the visitor. In addition to the mentioned levels, it is also necessary to indicate the level of communication based on participation (participatory museum), in which communication with the museum takes place in the social plane of interaction, as discussed earlier. Creating a dialogue with the user is the aspect that defines the value of a modern digital museum (Cepeda-Galvis *et al.*, 2018). The trends in the development of museum business that exist today require further integration of new digital tools into museum practice, both in the exhibition activity and in other areas of the museum's activity.

Virtualization of the museum collection and its placement in the online environment allows to expand the audience and solves the problem of accessibility of cultural heritage. Moreover, the intensive activity of the museum in the web space, social networks and online communities provides an opportunity for its audience not only to visit the virtual museum from anywhere in the world, but also to unite them in communities of interest and implement virtual projects in the field of science, education, culture and social activities. Active interaction is possible not only "within the walls" of the virtual museum, but also in the classical museum itself, where today the visitor gets the opportunity to interact with various exhibitions.

4. Conclusions

Research of consumers of museum products in Belgorod, drawing up a social portrait of the audience of visitors, determining target orientations allows to determine priority areas of museums activity. One of them is the introduction of information technologies to improve the availability and quality of museum services and products. The majority of visitors are people under 35 years old -73%. Their perception of the museums information is greatly influenced by the level of digitalization. Digital technologies can become a tool that can make a museum modern and relevant to the public, and increase the attendance of museums.

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1. The brief curriculum is missing Belgorod State University Russia, 308015, Belgorod, Pobeda str., 85 Contact e-mail: vishnevskaya@bsu.edu.ru

2. The brief curriculum is missing Contact e-mail: koroleva_i@bsu.edu.ru

3. The brief curriculum is missing Contact e-mail: slinkova@bsu.edu.ru

4. The brief curriculum is missing Contact e-mail: tklimova@bsu.edu.ru

5. The brief curriculum is missing Contact e-mail: sgrigorenko@bsu.edu.ru

[Index]

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