Introduction. The use of methodical tools of pricing in the marketing of exhibition activity by the companies-organizers of exhibition events allows to strengthen their competitive positions in the internal and external markets of exhibition services, to improve the financial results of their activities.

The research hypothesis. When improving the methodological tools of pricing in the marketing of exhibition activities, it is advisable to use the concept of extremely high, preventing the formation of demand, the price, which the author called the "price of alternative".

The purpose of this article is to offer methodological tools of marketing pricing in the field of expo business and to substantiate the economic and mathematical model of the optimal market price of the exhibition area.

The methodology of the study: methods of observation and collection of facts, statistical, content analysis, comparative and functional analysis, system approach based on modeling of economic reality, tabular, graphic, specific methods of marketing research: field (surveys of exhibition organizers, participants of expositions) and desk research.

Results. The four-level marketing model of the exhibition service as a set of various interrelated attributes and benefits expressing the usefulness of the considered expo service for the participants of the exhibition event was developed. The use of the developed model allows exhibition organizers to form marketing relations with all market participants in the best possible way, to position the company taking into account consumers' expectations, and to differentiate expo-services suppliers taking into account their quality characteristics.

Conclusions. The use of the "price of alternative" allows the company organizer of the exhibition events to get scientifically grounded toolkit of exhibition pricing, developed on the basis of benchmarking and containing economic and mathematical model of the optimal market price, which takes into account the interests of the client and the organizer of the exhibition events and promotes the development of interaction between them.

Keywords: marketing; price; expoevent; exposervice; exhibition; expobusiness.
Вступ. Використання методичного інструментарію ціноутворення в маркетингу виставкової діяльності фірмами-організаторами експозахідів дозволяє посилюти їх конкурентних позицій на внутрішньому і зовнішньому ринках виставкових послуг, поліпшити фінансові результати їх діяльності.

Гіпотеза дослідження. При вдосконаленні методичного інструментарію ціноутворення в маркетингу виставкової діяльності доцільно використовувати поняття граничної якості, яка перешкоджає формуванню попиту, ціна, яка названа автором «ціна альтернативи».

Мета статті запропонувати методичний інструментарій маркетингового ціноутворення в сфері експобізнеса і обґрунтувати економіко-математичну модель оптимальної ринкової ціни виставкової площі.

Методи дослідження: методи спостереження і збору фактів, статистичний, контент-аналіз, порівняльного і функціонального аналізу, системного підходу, заснованого на моделюванні економічної дійсності, табличний, графічний, специфічні методи маркетингових досліджень: польові (опитування організаторів виставок, учасників експозахідів) і кабінетні.

Результати. Розроблено чотирьохрівнева маркетингова модель виставкової послуги як суккупність взаємопов’язаних між собою різних атрибутів і вигід, що виражають корисність даної експопослуги для учасників виставкового заходу. Використання розробленої моделі дозволяє організаторам виставок найкращим чином формувати маркетингові відносини з усіма учасниками ринку, здійснювати позиціювання компанії з урахуванням очікувань споживачів, а експонентам — диференціювати постачальників експопослуг з урахуванням їх якісних характеристик.

Висновки. Використання «ціни альтернативи» дозволяє для фірми-організатора експозахідів отримати науково обґрунтований інструментарій виставкового ціноутворення, розроблений на основі застосування бенчмаркінгу і містить економіко-математичну модель оптимальної ринкової ціни, що враховує інтереси клієнта і організатора експозахідів і сприяє розвитку взаємодії між ними.

Ключові слова: маркетинг; ціна; експозахід; експопослуга; виставка; експобізнес.
Formulation of the problem. The establishment of market economy in our country, including in the field of exhibition services, began relatively recently – in the 90s of XX century. This led to the use of the marketing concept based on a set of marketing tools. These tools allow us to have a significant impact on the consumer behavior of the target audience and interact with it regularly through the established feedback. The use of a complex of marketing communications in exhibition activities plays a crucial role in a number of economic spheres. In turn, the success of this activity largely depends on the adopted pricing policy for the main exhibition service, which is provided by the organizing firms (sellers) to exhibitors (buyers) in the form of providing them with booth space at market price.

Practice shows that the solution of pricing issues in the exhibition business so far has been carried out mainly on the basis of the cost method, taking into account, first of all, the commercial interests of the firms-organizers of exhibitions, which in a competitive environment does not always lead to the expected results. Besides, their activity is characterized by the insufficient level of practical use of marketing pricing policy instruments. There are market approaches to pricing alternative to cost methods. They are based on research of demand of participants (exhibitors) of exhibition events and competitive environment and are used very rarely due to labor intensity and cost of use. In this regard, the improvement of methodological tools for pricing in the marketing of exhibition activities seems to be quite relevant, which led to the choice of research topics.

An analysis of recent research and an unresolved part of the problem. The substantive essence of the concept of marketing in the service sector is considered in the works of foreign authors: G. Armstrong, R. Best, F. Kotler, J.-J. Lamben, E. Rice, D. Trout, J. Evans. The study of exhibition and fair activity and its marketing aspects are devoted to the works of I. Antonenko, T. Duplyak [1], M. Arshevskoy [3], N. Aleksandrova, I. Arshevskoy [3], I. Filonenko [4], I. Burgela [5], T. Tkachenko [6], E. Dobrobabenko, N. Dobrobabenko [7], G. Zaharenko [8], O. Melnikovich, T. Burgimova [9], V. Pekar [10] and other authors. Nevertheless, the issues of scientific substantiation and effective use of methodological tools of pricing in the sphere of exhibition services are not fully developed.

Their solution would contribute to the improvement of marketing pricing for the main exhibition service, which is provided by the companies-organizers to the participants of exhibitions in the form of providing them with the stand space at the market price, and at the same time – to the development of interaction between the buyers of the service (exhibitors) and its sellers (organizers), which was the basis for choosing the topic of the article.
The aim of the article is the theoretical substantiation and improvement of the methodical tools of pricing in the marketing of exhibition activities, which allows to increase the competitiveness of the companies-organizers of exhibition events on the internal and external markets of exhibition services.

Research results. For deeper understanding of the need to improve the methodological tools of pricing in the marketing of exhibition activities, the author has analyzed and systematized various approaches to the definition of the concept of "marketing". By analogy with the three-level model of F. Kotler's goods, the author developed a four-level marketing model of the exhibition service, which contains a set of hierarchically interrelated attributes and benefits, reflecting its overall utility, or consumer value, for the participants of the exhibition event, that is, exhibitors (Figure 1).

Source: [2].

Figure 1. Four-level marketing model of exhibition service

As a result, the concept of marketing of exhibition activities was clarified and thoroughly disclosed – as a multifunctional communication process providing interaction between subjects of the exhibition services market to meet the commercial interests of each participant of this process through the implementation of product, price and other strategies of the exhibition organization. The author considers the price strategy in the expo business as an
important element of the marketing policy of the exhibition company which is aimed at formation and management of the expo space price taking into account the characteristics of the exhibition service, factors of the marketing environment, conditions of the expo services market, goals and financial possibilities of the company.

According to the graphical representation of the linear function of demand (1) presented in Figure 2, the sought optimal market price of the exhibition area is in the gap between the above marginal values of the original price ($P$). The marginal high price, at which the zero value of exhibitors' demand for the exhibition area is set, is proposed to be called the "alternative price" and denoted ($P_{alt} = a/b$). Then the equation of linear demand function (1) can be presented in the following form:

$$Q = a(1 - P/ P_{alt}), \quad (1)$$

which also makes it possible to better understand the economic essence of the price of the alternative ($P_{alt}$) in relation to the export-oriented business. It consists of the fact that at the specified "alternative price" the demand of exhibitors for this exhibition event disappears due to the possibility of participation at the same price in an alternative exhibition event characterized by higher quality.

The economic and mathematical model of determining the optimal market price of the exhibition area (point G, Figure 2), which together with the price of the alternative (point J, Figure 2) takes into account the marginal costs (MC) of the organizer of the exhibition events:

$$P_{Opt} = 0,5(P_{alt} + MC), \quad (2)$$

where $P_{Opt}$ – the optimal market price of the exhibition area (UAH/m²), which maximizes the total profit of the company organizing the exhibition. This is possible if ($P_{Opt}$) is higher than the average full costs ($P_{Opt} > ATC$), and the marginal income (MR, UAH/m²) is equal to marginal costs (MC, UAH/m²), which arise at the organizer firm in connection with the service to the exhibitor and its stand space during the opening, holding and completion of the exhibition event.

The process of determining the optimal market price is presented in Figure 2.

In a market economy, the main exhibition service is in the form of goods and therefore has two important properties – utility, or consumer value – for the buyers of the service represented by exhibitors, and value – in the form of the market price of the exhibition space.
Proceeding from the assumption that in the market conditions the only source of positive cash flow is the client, the author has placed the target audience of the exhibitor in the "core" of the model under consideration (its first level – exhibition service by design), which is represented by clients in the form of visitors to the exhibition. In the course of searching for ways to improve the methodical tools of pricing in the marketing of exhibition activities was conducted a study of pricing policy of exhibition companies in Kiev (Ukraine) and a survey of exhibitors to identify their attitude to exhibition pricing. The results are presented in Table 1.

The conducted research has shown that at the exhibition enterprises of Kiev (Ukraine) there is an insufficient level of practical use of tools of marketing price policy, and the survey of exhibitors has allowed to reveal their attitude to the exhibition price formation carried out by the organizing firms. According to the results of the marketing research, the author made recommendations to the companies-organizers of exhibitions to establish the price of the booth space offer taking into account the competitive situation on the market of expo
services and the attitude of the exhibitors to the exhibition pricing, which should contribute to the development of the expo business sphere.

**Table 1**

<table>
<thead>
<tr>
<th>Questionnaire &quot;Tools of marketing price policy&quot;</th>
<th>Level of practical use of pricing tools</th>
<th>Questionnaire &quot;Tools of marketing price policy&quot;</th>
<th>Attitude of exhibitors to exhibition pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of the pricing algorithm in practice.</td>
<td>Not used by any exhibition company.</td>
<td>The role of the price for exhibitors when deciding on the purchase of exhibition services.</td>
<td>Price is important, but not a determining factor (140 exhibitors, 44.4%). Price is the key factor (119 exhibitors, 37.8%).</td>
</tr>
<tr>
<td>Setting the pricing goals.</td>
<td>One company out of five.</td>
<td>Factors that influence the decision to buy an exhibition service.</td>
<td>1st place – event theme, 2nd – related services, 3rd – price.</td>
</tr>
<tr>
<td>Study of demand and competitive environment.</td>
<td>Two out of five companies.</td>
<td>Optimal price for exhibitors.</td>
<td>The average market price of the exhibition area (175 exhibitors, 55.6%).</td>
</tr>
<tr>
<td>Pricing methods use.</td>
<td>Predominantly expensive method (three companies out of five).</td>
<td>Threshold price for exhibitors, above which they will give up the company's services.</td>
<td>Above the average market price or 3.5–4.0 thousand UAH (133 exhibitors, 42.2%).</td>
</tr>
<tr>
<td>Account in exhibition pricing of strategically important factors of internal and external marketing environment of an enterprise.</td>
<td>No company takes such factors into account: &quot;availability of specialized exhibition space&quot;.</td>
<td>Qualitative characteristics of an exhibition event for which exhibitors are willing to pay a higher price than specified in the price list at the time of purchasing the service.</td>
<td>Large-scale advertising campaign (210 exhibitors, 66.7%), territorial (geographical) location (71 exhibitors, 22.5%), availability of specialized exhibition space (42 exhibitors, 13.3%).</td>
</tr>
<tr>
<td>Optimal price of stand space for organizers.</td>
<td>&quot;energy appreciation&quot;, &quot;foreign policy&quot; and &quot;unemployment rate&quot;.</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>The use of discounting system.</td>
<td>A price that covers costs and makes a profit (5 companies).</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
In order to establish the price of the exhibition space depending on the quality of the exhibition events, the author, through a correlated analysis, has processed a large amount of information about 67 international exhibitions held in 2019 in four countries (Ukraine, Germany, Italy, France) in such a leading sector of the economy as "Machine Building, Industry, Manufacturing, Machinery, Tools, Equipment" (Table 2).

**Table 2**

**Estimate the tightness of the relationship by using the correlation coefficient between the number of visitors, exhibitors and the size of the leased space at exhibitions (Ukraine, Germany, Italy, France) in 2019**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>The size of the exhibition area, sq. m.</th>
<th>Number of exhibitors, legal and physical persons</th>
<th>Number of visitors, person per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>The size of the exhibition area, sq. m.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>0,930718</td>
<td>0,781029</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>0,8011913</td>
<td>0,810515</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>0,964913</td>
<td>0,934048</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>0,916914</td>
<td>0,979132</td>
<td></td>
</tr>
<tr>
<td>Number of exhibitors, legal and physical persons</td>
<td>0,950608</td>
<td>Ukraine</td>
<td>0,886711</td>
</tr>
<tr>
<td>Germany</td>
<td>0,811923</td>
<td>0,644155</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>0,964913</td>
<td>0,869213</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>0,927964</td>
<td>France</td>
<td>0,881019</td>
</tr>
<tr>
<td>Number of visitors, people per day.</td>
<td>0,790029</td>
<td>0,886751</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Germany</td>
<td>0,810505</td>
<td>0,634355</td>
<td>Germany</td>
</tr>
<tr>
<td>Italy</td>
<td>0,923038</td>
<td>0,869213</td>
<td>Italy</td>
</tr>
<tr>
<td>France</td>
<td>0,9591132</td>
<td>0,881019</td>
<td>France</td>
</tr>
</tbody>
</table>

As can be seen, correlation coefficients are close to one, which indicates a high degree of correlation between random variables that characterize the quality of exhibitions. Similar researches of the author of statistical data on exhibitions for 2019 confirmed the regularity established in Table 2, which is inherent to specialized exhibitions held in other sectors of economy, as evidenced by the research conducted by the author. Due to the fact that in practice the contract for participation in an exhibition and fair event is based on the size of the leased exhibition space by the exhibitors, rather than the number of visitors or exhibitors, this gave the author a reason to consider the size of the leased exhibition space as a generalized (integral) indicator of the quality of the conducted exhibition event. It allows to determine the value of the relative price/quality ratio established at this or that exhibition event.

**Conclusions and suggestions.** Justified recommendations for improving the methodological tools of pricing in the marketing of exhibition activities take into account the interests of both the organizers of exhibitions and their participants (exhibitors). Thus, in accordance with the author's recommendations, exhibitors will pay for their participation in a particular
exhibition at a price determined depending on its quality, and the organizers of exhibition events at this price will maximize the total profit, but only if the market price calculated by the proposed methodology covers the costs of the exhibition. Offering the exhibition area to the exhibitors at the market price calculated in accordance with the methodology developed by the author will lead to an increase in competitiveness of the organizer firms. The coincidence of interests of the main subjects of the exhibition market will contribute to the development of cooperation between the organizers of exhibition events and exhibitors.

References


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