

Digital technologies in public catering industry (regional aspect)

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Abstract – Digital technologies have been gradually becoming an integral part of all spheres of human life. At present, it is impossible to imagine our life without electronics, computer, network and many other important automated technologies. Digital environment is everywhere – from communication and purchase of goods to the production of goods and the independent work of a company. Nowadays, such a unique phenomenon as ‘digital economy’ has emerged and is developing. This article focuses on the emergence of a new economic era. It is the era of the digital economy in public catering industry. The article discusses the well-known rating ‘guides’ - websites on which you can easily choose a restaurant or a cafe, such as the ‘guide’ Zagat. In the regional market, the TripAdvisor ‘guide’ is most often used. On this website, anyone can read other people’ reviews about cities and countries, hotels and restaurants, resorts and attractions and plan their leisure time. TripAdvisor ‘guide’ uses such evaluation criteria for catering establishments as food, service, price and quality as well as cuisine, meal times, restaurant features, category of persons who like the restaurant, location. Using this ‘guide’ a study of catering establishments located on the regional market of Kursk was carried out. According to the results of the research, criteria for an expanded marketing analysis of the benefits of services at various catering establishments were proposed.

Keywords – public catering establishments, service quality, digital technologies, regional market, digital marketing, social networking sites.

I. INTRODUCTION

Modern information and communication technologies substantially change all social relations, in connection with which it is noted that a new, information society called the ‘digital economy’ is currently emerging. Despite some similarities with traditional economic relations, it differs in many ways from them, which makes it topical from the point of view of the scientific community. One of the key areas of the state development is economic one. So, the introduction of the ‘digital economy’ is a ‘lever’ for the development of the economic structure and the environment as a whole. Horizons are expanding, new opportunities are arising, especially for the younger generation which can realize their ambitions and knowledge, creating a favourable safe social environment for our future.

Digital technologies have been becoming an everyday part of economic, political and cultural life, economic entities of

the Russian Federation and the engine for the development of the society as a whole. Russia is at a progressive stage of the development of modern civilization which is characterized by the dominance of knowledge, science, technology and information in all spheres of life. Russia is faced with the problem of global competitiveness and national security, guided by the events of foreign policy and global trends, and the development of the digital economy in the country plays a significant role in solving this problem. Some elements of the digital economy have been already successfully functioning [1].

The digital economy operates most effectively in the markets with a large number of players and a high level of ICT services penetration. According to the technological aspect, the digital economy is defined by four trends: mobile technologies, business analytics, cloud computing and social media [2].

Social media marketing entered the realm of business and industry in the mid-2000s and has since stirred significant interest and controversy as a novel means of advertising products and services. Defined as user-generated content delivered via the web- and mobile-based technologies, social media allows users to communicate, discuss, recommend, co-create and modify content [3].

Leading companies are subsequently using the internet today for online marketing activities, [4] through digital tools like blogs and company-owned online communities. A corporate blog is an online webspace where companies can host organizational, brand-related, promotional or relational content in order to be circulated among consumers. As content on a blog starts increasing, online readership and circulation increases through inbound and outbound links from and to other websites respectively. Consumers start responding gradually to the organizational posts by commenting and liking posts and by cross referencing on other sites [5].

Common social channels include Facebook, Twitter, Wikipedia, Pinterest, TripAdvisor and Yelp, as well as a myriad of mobile applications (apps) for smartphones. These channels and others have changed the marketing landscape from a traditional one-to-many broadcast of messages to an inclusive many-to-many conversation that accelerates word-of-mouth (WOM) influence on purchasing decisions. In fact, 50 per cent

of purchases originate from WOM sharing for high involvement products [6].

Digital knowledge-sharing and gathering on multiple social channels encompass the customer's 'digital journey' where the brand experience is social and emotional, as well transactional [7].

Now customers expect companies to have a social media presence, which adds brand credibility. [8]

Savvy companies position themselves in their customer's environments and allocate marketing budgets to the digital economy. A recent social media marketing survey found that 92 per cent of brand managers felt social media was indispensable to their firm's marketing objectives. [6]

Gains are best achieved by the companies that strategically implement social media campaigns, including key performance metrics and web analytics. In fact, the digital consulting firms Econsultancy and Redyeye surveyed 700 digital marketers and found that strategic conversion practices increased sales [9].

That data suggest that social media engagement, such as monitoring and responding to customer review sites like TripAdvisor and Yelp, may be important to driving sales. [6]

Moreover, that data suggest that the participation of social networks, such as monitoring and responding to customer review sites, such as TripAdvisor and Yelp, may be important to facilitate sales.

Currently, there is an increase in competition in all sectors of the economy. The problem of attracting customers is also relevant for firms operating in the field of public catering, whose activities result in services.

The emergence of competition causes an increased interest and special attention to the activities of an enterprise, to the development and implementation of special programs aimed at promoting the services offered, attracting and retaining customers, and increasing the level of a service.

The level of a service has an impact on the financial performance of catering enterprises, since it forms regular customers who want to use the services offered.

On the one hand, the regional consumer market of any region is represented by a network of stores of small wholesale and retail trade, wholesale and intermediary organizations as well as catering and service enterprises; on the other hand, it is represented by individual buyers and households in general [10].

As of 01/01/2018, there are 444 catering facilities in Kursk.

The infrastructure of the consumer's market is annually replenished with new modern formats of catering enterprises. They are fast-food establishments, cafes, bars. Such type of service as 'Home Delivered meals' became widespread. Fast food restaurants located in large shopping and entertainment centers and hypermarkets are still a popular and accessible type of catering. The demand in public catering is one of the main needs for food and catering services [11].

Catering facilities can be classified according to several criteria and, depending on the type of catering business, its

activity is regulated by different rules. So, it is important to correctly identify a type of a catering. A category of the public catering establishment is a type of institution that has special features and parameters, the permitted and prohibited range of food items sold, a list of related services provided, a number of distinctive features.

In Kursk, in accordance with GOST, which regulates the classification of the public catering establishments, the following characteristics are taken into account:

- the composition of the range of food offered for sale, a variety of dishes, the complexity of their preparation;
- technical facilities, which include the material and technical equipment, premises of the enterprise, the architectural design of the building, the layout and other factors;
- servicing methods;
- employees' number and qualification, the requirements for employees in Kursk;
- the degree of comfort provided and the degree of service maintenance — the ethics of communication, the aesthetics of the premises, etc.;
- list of services rendered to the population;
- other factors [12].

II. RESEARCH OBJECTS AND METHODS

The most obvious and popular way to navigate the variety of restaurants and cafes is to take advantage of the famous 'guides'. 'Guides' are the ratings published in the press, collections or on certain networking sites. They are fair and incorruptible, and have a multi-stage evaluating system. Specially trained strict experts work in some of them; the opinions of ordinary visitors just influence on the position of the restaurant in the ranking of others. Let us consider such a system in the case of the world famous restaurant guide – Zagat guide.

Restaurants are chosen and rated by the visitors themselves. Customers rank and review restaurants and cafes on the website of restaurants, and the system compute the total coefficients. Zagat has been owned by Google since September 2011. Thus, everyone can become a restaurant critic. You just need to register and fill out a short questionnaire [13].

Zagat is not the only guide of this kind. There is also Yelp and TripAdvisor. They are networking sites and can be used as mobile apps. Any restaurant can get into Zagat. Any person can create a restaurant page on the site, and if you are the owner, you can change information [13].

All the evaluation criteria are known and everything is important: cuisine, prices, service, the number of visitors, the colour of the tablecloths and even whether the restaurant works on Sunday. Each establishment is evaluated according to four criteria: food, interior, service and prices. In addition, visitors rate restaurants on the 30-point system and must indicate a price category. Moreover, everyone leaves a comment in free form and they can be read on the site.

The Zagat company's website beats all attendance records, so restaurants which are in the top ten of the ranking work

really hard: the tables are booked two months in advance. Moreover, additional distinguishing feature of the guide which was introduced by the company’s marketing department is Zagat branded stickers for positively restaurants influence their attendance. Most often, the owners of the rated restaurants place them on the doors or windows of the establishments, so that a passer-by could understand that these cafes can be trusted.

The Zagat guide is an excellent example of the fact that people trust the opinions of ordinary visitors rather than restaurant critics. One restaurant in Brooklyn which got 28 scores out of 30 for its food in Zagat guide can be given as an example. Then, The New York Times devoted its front page to the restaurant and now it is booked two years ahead [13].

For the analysis of the catering establishments in this work, the authors used data of the TripAdvisor guide [14].

This is the world’s largest website for those who love travelling, by which they can plan a perfect trip. Here everyone can read other people’s reviews about cities and countries, hotels and restaurants, resorts and attractions (the website contains over 225 million reviews of nearly 5 million tourist sites). This guide is quite popular in Russia, and many consumers leave their reviews on it. They use the following evaluation criteria: the overall rating, which includes food, service, price and quality, the cuisine, mealtime, restaurant features, category of persons who like the restaurant, location.

For the analysis, data from 272 catering establishments registered on the website were used. Evaluation is carried out by means of the six-point scale: excellent, very good, good, not bad, bad, and terrible.

III. RESULTS AND DISCUSSION

In accordance with GOST 30389-2013, classification criteria were identified and the analysis of public catering enterprises was carried out by:

- types;
- location [12].

The catering establishments are divided by types into restaurants, cafes, bars, canteens, fast food restaurants, buffets, cafeterias, deli counters. Two catering establishments “Restoratsiya” and “Bulanzhe”, based on the information provided on their official websites, do not refer themselves to any type, therefore, we will not take them into account in the analysis. In addition, a number of the establishments, such as “Amsterdam” and “Pelikan”, refer themselves to café-bars, and “Biblioteka” and “Tabasco” refer themselves to be restau-bars, although the classification does not include such a type, and we will consider them in a separate group. Fig. 1 presents the analysis by the type of the catering establishment.

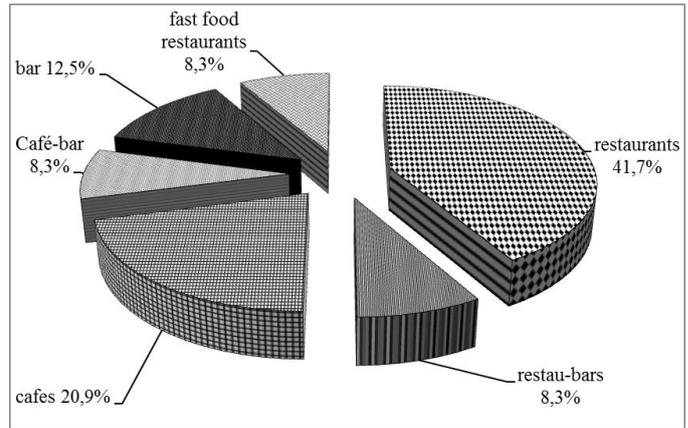


Fig. 1. Analysis by the type of the catering establishment

The rating includes 41.7% of restaurants, 20.9% of cafes, 12.5% of bars, and 8.3% of fast-food restaurants, restau-bars and cafes-bars, from which we can conclude that the most popular catering establishments are restaurants.

Based on the data given on the ‘guide’ website, a summary Table 1 was compiled according to overall ranking of the best Kursk restaurants using such indicators as food, service, and price/quality.

TABLE I. OVERALL RANKING OF THE BEST KURSK RESTAURANTS USING SUCH INDICATORS AS FOOD, SERVICE, AND PRICE/QUALITY

Restaurant name	Food	Service	Price/Quality
Bykovsky restaurant	4	3.5	4
Kotlta restaurant	4.5	4.5	4.5
Dikanka restaurant	4.5	4.5	4
Akvamarin restaurant	4.5	4.5	4.5
Prestizh restaurant	4.5	4.5	4
Pasta Basta cafe	4.5	4.5	4.5
Amsterdam café-bar	4	4	4
Nevskiy restaurant	5	5	4
Fresh Cafe	4.5	4.5	4.5
Biblioteka restau-bar	4.5	3.5	3.5
Piratskaya pristan shashlik-bar	4	4	4
Restoratsiya	4	4	4
Zhar ptitsa fast food chain	3.5	4	4.5
Bulanzhe	4	4	4
McDonald's fast food chain	4	5	4
Pelikan café-bar	5	5	5
Mezonin restaurant	4	3.5	4.5
BLACK BEAR Bar Boutique	4.5	5	4.5
Riviera cafe	4	4.5	4
SAVA cafe	3.5	4	3.5
Stariy Tbilisi restaurant	4	3.5	4
Premiera restaurant	No evaluation		
Tabasko restau-bar	4	4	4
Serebryanaya FABRIKA Bar&Grill	4	3.5	3.5
Pronto café	3.5	3	3
Parkovka pub beer restaurant	3.5	4	3

In this table, the catering establishments are listed in the descending order of their positions in the ranking i.e., the Bykovsky restaurant is in the first place, and the Pronto cafe is ranked 25th respectively. This ranking also does not distinguish the establishments by type; it includes restaurants, cafes,

and fast food businesses. According to the evaluation data of the overall ranking using such indicators as food, service, price/quality, presented in the table, it is possible to conclude that basically all catering establishments got scores from 4.5 to 3.5, which characterizes them as good ones and they have built credibility with clients. Table 2 shows the ranking of the best restaurants in Kursk, according to customers' reviews.

TABLE II. RANKING OF THE BEST RESTAURANTS IN KURSK, ACCORDING TO CUSTOMERS REVIEWS

Restaurant name	Number of re-views	Share according to evaluation,%				
		Ex-cel-lent	Very good	Not bad	Bad	Terri-ble
Bykovsky restaurant	144	54	20	15	6	5
Kotleta restaurant	60	76	13	3	5	3
Dikanka restaurant	82	57	20	15	4	4
Akvamarin restaurant	31	69	22	6	3	0
Prestizh restaurant	54	58	24	14	3	1
Pasta Basta cafe	31	72	19	3	6	0
Amsterdam café-bar	79	43	35	17	2	3
Nevskiy restaurant	40	71	20	2	2	5
Fresh Cafe	34	58	35	0	5	2
Biblioteka restaurant	46	54	23	13	6	4
Piratskaya pristan shashlik-bar	98	47	24	11	5	13
Restoratsiya	58	55	20	12	8	5
Zhar pítsa fast food chain	33	24	52	21	3	0
Bulanzhe	88	47	32	7	7	7
McDonald's fast food chain	26	44	30	26	0	0
Pelikan café-bar	25	88	8	0	0	4
Mezonin restaurant	42	49	14	21	14	2
BLACK BEAR Bar Boutique	31	69	12	16	3	0
Riviera cafe	17	60	35	0	0	5
SAVA cafe	43	46	23	9	16	6
Stariy Tbilisi restaurant	38	52	15	13	18	2
Premiera restaurant	17	80	5	5	5	5
Tabasko restaurant	21	42	50	4	0	4
Serebryanaya FABRIKA Bar&Grill	17	67	11	0	11	11
Pronto café	64	26	35	15	12	12
Parkovka pub beer restaurant	15	6	20	56	12	6

Fig. 2 presents data on the number of reviews. Fig. 3-5 present data on the enterprises assessed as "excellent", "very good" and "terrible".

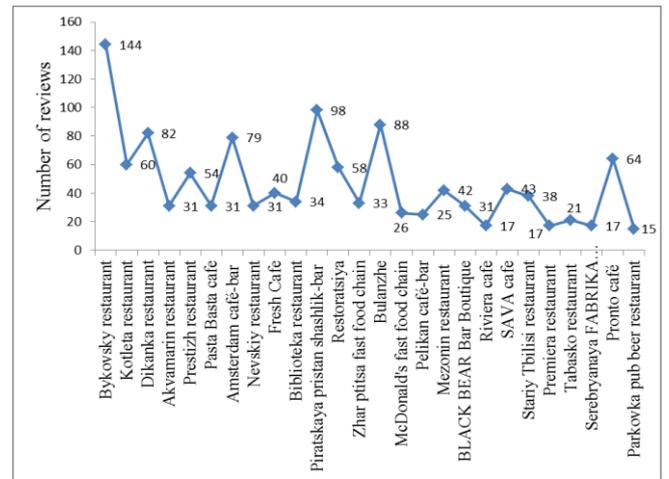


Fig. 2. Information on the number of reviews

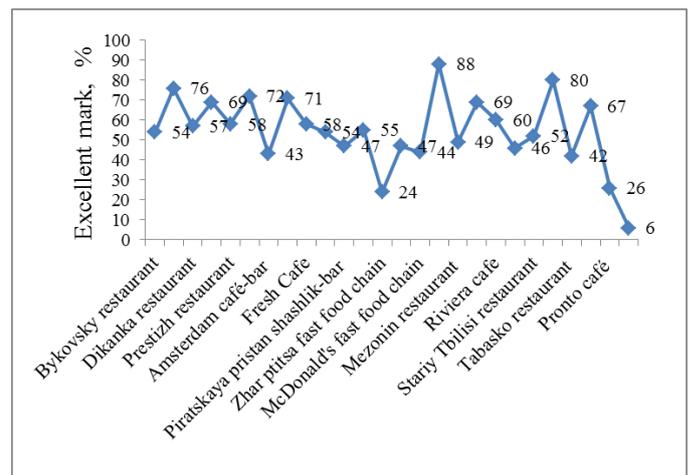


Fig. 3. Enterprises assessed as "excellent"

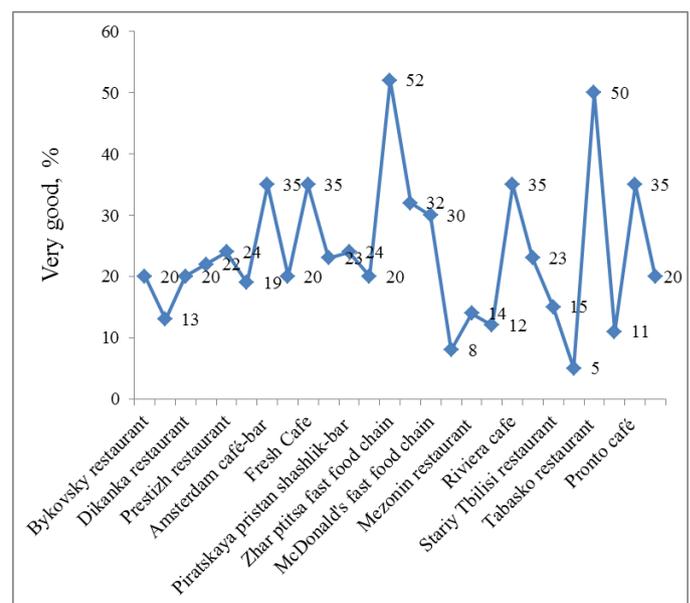


Fig. 4. Enterprises assessed as "very good"

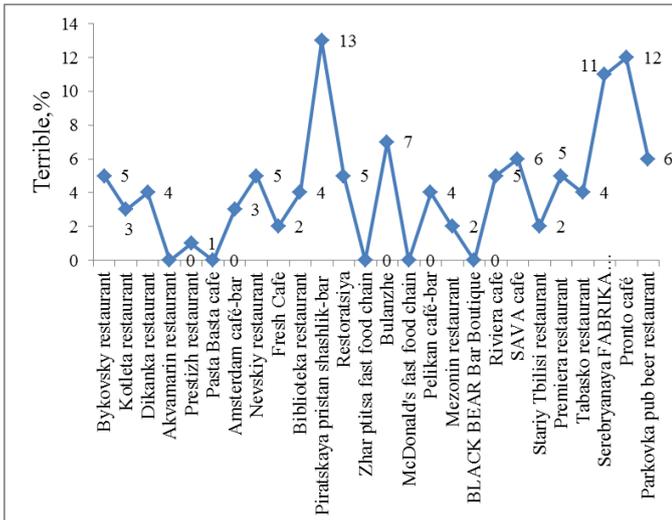


Fig. 5. Enterprises assessed as "terrible"

Overlapping diagram of the number of positive and negative reviews are presented in Fig. 6.

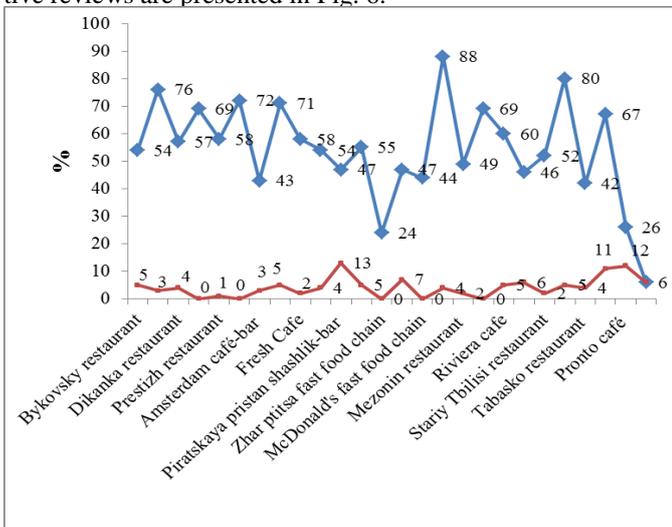


Fig. 6. Overlapping diagram of the number of positive and negative reviews

IV. DISCUSSION OF RESULTS

On the basis of the conducted research it can be concluded that the ranking is formed on the basis of a number of reviews, a number of positive reviews and absence of "terrible" reviews, so despite the low overall scores including such indicators as food, service, price and quality, the restaurant "Bykovsky", for example, having scores 4; 3.5, 4 respectively, occupies the top position, as it has the largest number of reviews - 144, of which "excellent" is 54%, and "terrible" is only 5%. If we compare the indicators with ones of cafe bar "Pelican", we can see that this catering company got "fives" in the overall scores for each of the three indicators, but having only 25 reviews with 88% of "excellent" assessment and 4% of "terrible" assessment, takes only the 16th position in the ranking. It can be concluded, therefore, that guide TripAdvisor takes into account a significant number of indicators and assessment which can be considered quite objective. But it should be noted that not all Kursk catering companies that could provide competition are registered in this guide. Managers of the cater-

ing enterprises can be advised to post information about their enterprises in various assessment systems more actively and register their establishments on websites. Now, at the time of the worldwide computerization, active development of gadgets, choosing a place to spend time consumers often use similar sites including this popular in Russia guide TripAdvisor. Also, enterprise management should monitor and analyze the information provided by consumers, who in this case are independent experts, and can objectively assess a particular catering company while visiting it. And managers can on the basis of the reviews evaluate the services provided by their company and the quality of their implementation and then work out a program of the strategic development of the company to improve service activities, attract more customers, which will lead it to higher positions in the ranking.

V. SUMMARY

Having studied and analyzed in detail various systems - "guides", based on which the ranking of the catering enterprises is built to assess the service activities and services provided by the enterprise, it is proposed to use the following criteria in the comparative analysis of the selected enterprises:

- menu at the entrance to the restaurant, or a small advert providing information about approximate prices in the outlet - plus 5 points. If there is such an advert but it presents information about the cheapest offers of the menu or time or other obligatory items, feel free to put the catering enterprise from 1 to 3 minus points;
- availability of a cloakroom. It should be located in front of the entrance to the hall - plus 5 points. Customers should enter the hall without outerwear because no one will be pleased if in their plate there is fur from a fur coat or a drop of rain from the wet raincoat of the customers at the next table. That is why you can put the catering enterprise minus 1 to 3 points;
- option to reserve tables is of course plus 1 point, but if you see the "reserve tables" from morning till 5 PM, the staff deceive visitors by selling tables for a small bribe - in this case this is minus 1. There can be some very minor exceptions when tables are reserved for power lunches, but this is true only for good restaurants, but not in restaurants where a set menu is provided for local clerks;
- restaurants or cafes where smoking is allowed, automatically drop out of all possible rankings and are blacklisted;
- table with a white and clean tablecloth - plus 5 points. Any other neutral colors can be estimated as plus 3 points. No tablecloth or a paper or bamboo one - definitely minus 1 point;
- a number of cutleries left on the tables which after customers take their places equals to the number of customers - plus 1 point;
- a served glass of water. And basically, when you are served with clean water without request - definitely plus 1 point;

- textile napkins - plus 1 point. Paper napkins of good thick paper should be available in special containers. There should be 6-9 pieces, conveniently folded, and not a whole pack of them - minus 1 to plus 1 point.
- salt and pepper should be in transparent containers - plus 1 point. Several grains of rice in these containers to absorb moisture - plus 1 point as salt and pepper are spices whose quality and taste are very much affected by moisture. The availability of additional container with sea salt and red pepper - plus another point;
- availability of other sauces, sticks, cutlery on the tables is not evaluated- 0 points;
- waiter's clothes are also assessed, a waiter/waitress should wear tailored clothes with light-colored top and long sleeves, should not wear a watch and bracelets. Waitresses should not wear rings. This criterion is evaluated from minus 1 to plus one point;
- a waiter should always have a lighter (not to help smokers, but for little things like candles and fondue) - plus 1 point, matches are not allowed - minus 1 point.;
- food served only on porcelain white plates - plus 3 points. If the restaurant does not pretend to be reputable, glass dishes can be used - plus 1 point. If the restaurant does not claim high positions in the ranking, food can be served on wooden trays, in pots, pans, and other "designer" things - put minus 1 point;
- water and drinks of third-party manufacturers, should be brought only in glass containers, and opened in your presence; this criterion is estimated from plus 1 point to minus 1 point;
- the dishes should not be heavy. Customers come to have a rest, not to move weight. And in Moscow restaurants, plates weighing more than 1 kg are found everywhere. It is not quite right to serve 250 grams of salad on a plate several times heavier than the food-estimated from plus 1 to minus 1 point;
- fresh flowers are allowed - plus 1 point. If you see pot plants on the tables, such restaurant can face Sanitary-Epidemiological inspection service, but not improvement of the ranking - minus 1 point;
- drinks should be served only in containers that are intended for this purpose, and this criterion will be evaluated from plus 1 to minus 1 point;
- waiters should not touch money and accessories where money is put (menu booklets and other containers). A special person should do this, plus 1 point if there is such a person in the restaurant;
- waiters have not learned yet to put dishes on the table without grasping the inner part of the dish close to the food with their upper finger. And we know very well how much dirt settles on hands after contact with money – minus 1 point;
- special staff, not waiters should wipe the tables. Waiters are allowed only to serve and take away dishes - plus 1 point;
- tables should be placed so that people feel comfortable to hear each other, but not other people's conversations – plus 1 point;
- of course, music volume should be slightly louder than a quiet voice – plus 1 point.

To assess the level of the competitive advantages of services at various catering enterprises in any Russian region the proposed method of evaluation of services criteria can be applied.

New conditions determine the use of both traditional marketing and development of innovative marketing ideas, techniques and methods for assessing factors of service activities of public catering enterprises, corresponding to a fundamentally different Internet Communication environment. The evolutionary development of the theory of marketing under new conditions reflects the unique opportunities provided by the Internet environment and their impact on the efficiency of public catering, formation of new competitive business strategies, use of innovative technologies for creation, distribution and promotion of goods and services.

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