Kateryna Fedosova

## DEVELOPMENT OF AN EFFECTIVE RESTAURANT MENU. RESEARCH AND RECOMMENDATIONS

The restaurant menu is a key factor in the choice of certain dishes by the guest, and the profit of the establishment directly depends on this. The object of research is the restaurant business, and the subject is the influence of the restaurant menu on the choice of dishes by its consumers. One of the major problems is that restaurant owners often underestimate the importance of the structure and content of their restaurant menu - the names and descriptions of dishes, the sequence of their arrangement, the number of certain items, the selection and recording of prices, the quality of photographs and the overall appearance of the menu. This task is most often shifted to a graphic designer who does not have a certain competence in this matter.

The paper describes various psychological techniques that can have a direct impact on the choice of dishes by the guest on the menu. The method of menu engineering by Michael Kasanava and Donald Smith, the features of the psychology of choice and neuromarketing in the restaurant business are considered. The study used the methodology of focus groups and content analysis. 73 printed restaurant menus were analyzed and 3 focus groups were conducted with specific target audiences. Focus group participants were asked to familiarize themselves with different types of restaurant menus. During the discussion, the participants expressed their opinions, comments and recommendations on the arrangement of dishes in the menu, structure, number of positions, sequence of dishes, etc.

Interesting results were obtained, which proved the importance of not only the appearance and beautiful design of the restaurant menu, but also the need to pay great attention to its content, a certain arrangement of texts and structure. This is due to the peculiarities of the psychology of choice and neuromarketing.

Thanks to the study, recommendations have been developed on the use of certain psychological techniques for the menu of any restaurant. The implementation of the techniques described in the paper made it possible to create an effective menu for the BLOOM healthy food cafe (Odesa, Ukraine), which led to an increase in sales of the establishment by $15.8 \%$ compared to the previous printed cafe menu.

Keywords: menu engineering, neuromarketing, restaurant business, restaurant pricing, Kasavana and Smith model, restaurant menu structure.

Received date: 28.10.2021 © The Author(s) 2022
Accepted date: 14.12.2021 This is an open access article
Published date: 22.02.2022
under the Creative Commons CC BY license

How to cite
Fedosova, K. (2022). Development of an effective restaurant menu. Research and recommendations. Technology Audit and Production Reserves, 1 (4 (63)), 32-35. doi: http://doi.org/10.15587/2706-5448.2022.253040

## 1. Introduction

In addition to the design and presentation of dishes, an equally important element of the success of a restaurant is the presentation of dishes on the menu - names, descriptions, structure, positioning, pricing, graphic design and visualization. Usually restaurant guests look through the menu very quickly [1]. The restaurateur must make a list and present all the dishes as efficiently as possible so that the guest has time to get acquainted with them and make the right choice.

First it is necessary to analyze the menu and determine which dishes bring more profit (high margin dishes), which are popular, but only distract the attention of guests and eat up most of the restaurant's profit.

The idea of a systematic approach to menu structuring was proposed by the authors of [2], who analyzed a large number of approaches to analyzing a restaurant menu.

In the 1980s, the menu engineering method of Michael Kasavana and Donald Smith [3] was created, based on the classic Boston Consulting Group product offer analysis model.

Adapting this technique to the restaurant business made it clear how different items on the menu work [4]. Restaurant owners use the Kasavana and Smith model (Fig. 1) as the main tool for developing menus and analyzing the sales of certain dishes. The methodology is based on the division of all dishes into 4 categories:

- Stars. They sell well and have high margins. It is they who bring the biggest profit to the restaurant.
- Workhorses. They are in demand among visitors, but their margin is small. It is not necessary to remove them from the list of dishes, but it is necessary to reduce their cost or increase the price.
- Puzzles. They are characterized by high margins, but they are sold poorly. The task of the restaurateur
is to stimulate demand for these dishes (promotions, special offers, etc.).
- Dogs. They sell poorly and have low margins (they can be safely removed from the menu).
So far, such an analysis can be easily carried out using restaurant accounting and automation programs (Poster, Iiko, R-kiper, and others).


Fig. 1. Menu Engineering Model (MEM) by Kasavana and Smith
Next, it is necessary to pay special attention to the structure, positioning of texts and creative descriptions of dishes on the menu in order to convince guests to choose the right items (bringing the most profit). It is also possible to influence certain expectations of the guest. For example, studies [5] have shown that when the menu font is in italics, potential visitors perceive the establishment as a top-class restaurant. The same conclusions turned out to be true for the weight of the menu. Heavier menus, as opposed to lighter ones, affect the perception of scale and expected quality of service. All this becomes possible by taking into account the peculiarities of the psychology of choice and neuromarketing.

Neuromarketing involves the use of neuroscience methods to determine the characteristics of a person's consumer behavior in response to various marketing incentives [6].

Cognitive warning is a deviation in judgment, accompanied by a possible illogicality in drawing conclusions about other people and situations. People create its «subjective social reality» on the basis of its own perception of the data of the external world [7].

These consumer impact tools combine different marketing strategies with brain science. Manipulations with the consumer's subconscious can increase sales and influence the behavior of the target audience. Our choice is influenced by emotional and volitional processes, while decision-making is influenced by cognitive ones [8]. Therefore, instead of acting rationally, people often prefer to act with hunches and intuition. All this knowledge can be effectively applied in practice to create a restaurant menu that will sell better and bring profit to the establishment.

Therefore, a deeper study of the influence of the restaurant menu on the choice of dishes by its consumers is relevant. Thus, the restaurant business was chosen as the object of research. The aim of the work is to study the
influence of the menu structure, names and descriptions of dishes, the sequence of their arrangement, the number of certain positions, the choice and recording of prices, the quality of photographs and the general appearance of the menu on the choice of guests.

## 2. Research methodology

During the study, 73 printed menus of different types of restaurants were analyzed.

Also, 3 focus groups were held with different target audiences:

- Group A - men and women aged 21-35, active users of social networks who visit restaurants at least 2-3 times a week.
- Group B - men and women aged 35-55 who visit restaurants at least once a week.
- Group C - men and women aged 21-30, active users of social networks, food bloggers, restaurant critics who visit restaurants at least $3-5$ times a week.
Focus group participants were asked to familiarize themselves with different types of restaurant menus. During the discussion, the participants expressed their opinions, comments and recommendations on the arrangement of dishes in the menu, structure, number of positions, the order in which dishes are listed on the menu, etc.


## 3. Research results and discussion

As a research result, it is possible to identify ten effective psychological tricks that can influence the choice of dishes on the restaurant menu. Let's consider each of them in more detail.
3.1. Menu structure. For convenience and easy perception, all dishes should be divided into groups (snacks, salads, soups, for children, vegetarian, etc.). It is also possible to select groups of dishes on the menu by type of product - chicken, fish, pork ... So the guest will be able to navigate much faster and make the choice easier. It is recommended to place an odd number of positions in each group - ideally $3-5$, but no more than 7 .
3.2. Assortment and number of items in the menu. The paradox of choice is a cognitive bias, when too much choice repels the consumer [9]. The more options, the more difficult it is to make a choice and the more likely that as a result the guest will be dissatisfied with his/her final decision. For example, you may feel that the unselected salad could have been tastier. From the abundance of positions, the client is lost, and orders only familiar popular dishes, which, most likely, are not the most profitable. A small menu with the optimal number of target items will allow to more convince the guest to choose dishes with a higher margin.
3.3. The order of the dishes on the menu. Restaurant guests usually do not read the entire list of dishes, but quickly look through the menu. More often, the eye focuses on the first two positions, and then goes to the last item in the list. The middle is often simply ignored. The most margined positions are best placed first, second and last in the list. In order to draw the guest's attention to a dish in the middle of the list, the number of positions must be odd.

It is not recommended to sort dishes by price. Some establishments list the cheapest items first and end up with the more expensive ones. All prices must be mixed so that they are difficult to rank and impossible to select by price.

At the same time, if the most expensive dishes are placed at the top, the rest of the menu may seem cheaper. However, in general, the guest will have the wrong feeling about overpriced prices, because it is the extreme positions of the list that are remembered.
3.4. Bait dishes. Adding dishes with the same price but less value to the menu will increase the likelihood of choosing the right item. At the same time, if the most expensive salad on the menu costs, for example, 10 USD, then in order to be bought, it is necessary to add one more salad to the menu, for example, for $15-20$ USD. Then a salad for 10 USD will no longer seem so expensive. Providing the ability to directly compare options will increase customer confidence in their choice.

At the same time, it is possible to pay attention to the prices of famous dishes. It is for them that guests usually compare prices with other establishments. Therefore, it is important to analyze the prices of competitors and keep prices for dishes such as Caesar, Greek salad, Borscht and the like at an average level or slightly lower. But for author's dishes, it is possible to safely raise prices.
3.5. Removing currency signs. The banknote designation is a painful reminder to the client when he/she spends money. A simple number without a currency designation is much better perceived. This technique reduces the «pain of paying» and is a well-known cognitive warning.
3.6. Number game. To motivate guests to order expensive dishes, restaurants resort to other tricks. For example, a decrease in the price by a few hryvnias, as a result, the price of 9 USD seems to be lower than as much as 10 USD. At the same time, the number 9 «magically» affects the guests. So, for example, «Seafood Plateau» for 35 USD is rented more expensive than for 39 USD. This has been confirmed by countless studies in the field of pricing and neuromarketing [10].
3.7. Price location. Most restaurants, when laying out menus for beauty, align all the prices in the column on the right and separate it from the names of the dishes. This is a big misconception, because in this case the guest looks first at the prices and then at the descriptions of the dishes, choosing the cheapest items. This forces the guest to focus on the price rather than the food. Therefore, it is recommended not to highlight prices in a different font, boldness, color, and not to separate them from the main text. So, it will be difficult for the guest to immediately pay attention to the price and compare all the options with each other. $\mathrm{He} /$ she will carefully read the descriptions, and the price will fade into the background.
3.8. Creative descriptions. Recently, restaurateurs have stopped using the names of dishes. «Fantasy Salad» or «Forest Glade» is more likely to be considered bad form. As a name, it is now customary to simply beautifully describe the ingredients and methods of preparing a dish.

Words have a huge impact on the choice of food. Effective menu descriptions can increase sales by $30 \%$. If
just write «Rib eye steak, 35 USD», the dish will seem too expensive. But if to add a few words about the quality and origin of the ingredients, the price seems more justified. Delicious description of the dish: «tender steak of a young calf raised in the green meadows of Argentina, with rosemary fries» sounds much more appetizing than just «steak and potatoes».

Studies show that adding the words «mother», «grandmother» and other designations of relatives makes dishes more attractive. For example, «grandmother's cherry pie», «mother's borscht» or «beloved uncle's liqueur». This is due to the metaphor effect (we better understand and remember texts that activate our imagination). Also, there are often different adjectives that cause a positive association, but do not carry a specific meaning. For example, «village balyk», «fresh salad» or «farm cheese». This technique is especially effective if the description indicates the origin of the ingredients: «ear with Carpathian mushrooms» sounds much more interesting than just «mushroom ear».

The mention of a farm where vegetables were grown, or the name of a pig breed, add additional value to the product. Consumers perceive this as a sign of quality, even if the names are made up.

Also, the choice of the client is positively influenced by nostalgic statements, such as «home» or «good old».

At the same time, if the menu is full of empty verbose descriptions, this may mean that the restaurant is simply filling up its price.

Reading the description of the dish, the guest must experience certain emotions and imagine it. The «tastier» the description is, the more likely it is that the guest will choose this particular dish. The taste characteristics of products and dishes can be described in words: citrus (lemon, orange, lime), refreshing (fresh), juicy, honey, nutty, burning, berry, rich, strong, smoky, spicy, tart, spicy and others.

To describe the texture of products, it is possible to use the words: airy, oily, viscous, creamy, crispy, crumbly, tender, sparkling, puffy, lush, juicy, silky, fleshy, velvety and others.

It is recommended to describe the method of preparation in the description. To do this, it is possible to use the words: baked, blanched, breaded, cooked on an open fire/coals, caramelized, fermented, fried, glazed, flambéed, soaked, pickled, toasted, sautéed, smoked, whipped.

To effectively describe dishes on the menu, it is possible to use the currently popular technique of replacing classic product names with more modern ones and choosing more exotic ingredients: ordinary salt vs sea or Himalayan salt, olive oil vs sesame or avocado oil, rusks vs croutons, chutney vs crumbs, riet vs pâté, fermented vs sour, etc. The pun method is also interesting: apple ketchup (apple sauce), orange tartare (diced orange) or beetroot carpaccio (thin slices of beetroot imitating the serving of classic meat carpaccio).
3.9. Color magic. An equally important role is played by colors and their combinations in the menu. Green is usually associated with natural and fresh foods, while orange stimulates the appetite. The color red is attractive and will highlight more salable dishes.
3.10. Photos on the menu. Despite the fact that photos increase sales by up to $30 \%$, they «cheapen» the appearance of the menu and the concept of the restaurant. This technique cannot be used in gourmet restaurants.

Photographing dishes is an effective technique, but its perception depends on traditions. In many countries, menus with images of dishes are associated with cheap fast food and can turn off demanding guests.

For exotic cuisines or non-standard dishes, photos are required. It is recommended to use photos of not all dishes, but only marginal ones or it is necessary to sell more often.
3.11. Discussion. Thus, knowledge about cognitive biases, the psychology of choice, and neuromarketing can be effectively used in compiling menus and presenting dishes. A restaurant menu should be attractive from the outside, sell well, and be easy to read.

The menu for the BLOOM healthy food cafe (Odesa, Ukraine) compiled on the basis of the study made it possible to increase the sales of the establishment by $15.8 \%$ compared to the previous printed menu of the cafe. The focus group participants positively assessed the new menu of the institution, and also noted the effectiveness of the psychological tricks used in it.

At the same time, when developing the menu, one should take into account the peculiarities of the concept of the restaurant and not abuse excessive creativity and psychological tricks. All this can alienate the guest and cause distrust of the restaurant. A possible development of this research is a thorough analysis of the regional characteristics of certain establishments of the restaurant industry and the mentality of their consumers.

## 4. Conclusions

73 printed restaurant menus have been analyzed and 3 focus groups with specific target audiences have been conducted. Interesting results have been obtained, which proved the importance of not only the appearance and beautiful design of the restaurant menu, but also the need to pay great attention to its content, a certain arrangement of texts and structure.

It has been proven that creative description and names of dishes, a convenient menu structure, a certain location and number of items, the use of high-quality photographs, the choice and correct recording of prices, as well as the overall look and design of the menu will increase restau-
rant sales and profits. This is due to the peculiarities of the psychology of choice and neuromarketing.

All this knowledge is recommended to be used when developing a restaurant menu in order to sell the most profitable positions. At the same time, do not forget that the choice of dishes from the menu is only the first stage of service. Next, it is necessary to at least justify, and at best - exceed the expectations of the guest. This can only be done through quality service, beautiful presentations and delicious cuisine.

## References

1. Levitin, D. (2017). Charles Spence Gastrophysics: The New Science of Eating. Penguin, 336.
2. Taylor, J. J., Brown, D. M. (2007). Menu Analysis: A Review of Techniques and Approaches. Hospitality Review, 25 (2), 74-82.
3. Kasavana, M. L., Smith, D. I. (1982). Menu engineering: A practical guide. Lansing: Hospitality Publishers, 126.
4. Saraswati, N. K., Bagiastuti, N. K., Elistyawati, I. A., Sudiarta, M. (2021). Menu Engineering on Main Course to Increase Sales. International Journal of Glocal Tourism, 1 (1), 51-60. Available at: https://ejournal.catuspata.com/index.php/injogt/article/ view/17
5. Magnini, V. P., Kim, S. (2016). The influences of restaurant menu font style, background color, and physical weight on consumers' perceptions. International Journal of Hospitality Management, 53, 42-48. doi: http://doi.org/10.1016/j.ijhm.2015.11.001
6. Kurban, S. (2017). Neuromarketing: history, trends and future development. Integrated communications, 3, 21-27. doi: http:// doi.org/10.28925/2524-2644.2017.3.3
7. Yakymova, N. (2020). Cognitive biases and their impact on behavioral models of labor market entities. Halytskyi ekonomichnyi visnyk, 2 (63), 118-125. Available at: https://r.donnu.edu.ua/ handle/123456789/1043
8. Levytska, D. R., Nifatova, O. M. (2019). Neuromarketing as a psychological effect on the consumer. Aktualni problemy innovatsiinoho rozvytku klasternoho pidpryiemnytstva v Ukraini. Kyiv: KNUTD, 67-72.
9. Enriquez, J. P., Archila-Godinez, J. C. (2021). Social and cultural influences on food choices: A review. Critical Reviews in Food Science and Nutrition, 1-7. doi: http://doi.org/10.1080/ 10408398.2020.1870434
10. Chychulina, K. V., Kladchenko, Ya. O. (2018). Modern price strategies based on psychology. Hlobalni ta natsionalni problemy ekonomiky, 23, 352-355.

Kateryna Fedosova, PhD, Associate Professor, Department of Hotel and Restaurant Business, Odessa National Academy of Food Technologies, Odessa, Ukraine, e-mail: fedosova2008@gmail.com, ORCID: https://orcid.org/0000-0001-7194-1340

