

G. O. SABADOSH**MENU ENGINEERING MECHANISM FOR RESTAURANTHOUSEHOLD ESTABLISHMENTS THAT SERVE THE ORGANIZED GROUPS OF CONSUMERS IN RECREATIONAL REGIONS**

Restaurant household establishments in health and tourist centers, children camps are obliged to implement fully food rations in the menu engineering during the term of staying the contingent of consumers according to the requirements of physical needs. Therefore, during the menu engineering is selected a certain menu variety, calculated the cost of raw materials for its implementation and certainly compared with established standards. This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. This article has been developed for use in courses introducing food, beverage, and labor cost controls to students preparing for careers in food and beverage management as well as hotels and other enterprises where this knowledge is necessary: menu engineering is the study of the profitability and popularity of menu items and how these two factors influence the placement of these items on a menu

Key words: menu of the enterprise, principle variables, structuring principle, principle of adaptation.

Г. О. САБАДОШ**МЕХАНІЗМ РОЗРОБКИ МЕНЮ ДЛЯ ПІДПРИЄМСТВ РЕСТОРАННОГО ГОСПОДАРСТВА, ЯКІ ОБСЛУГОВУЮТЬ В РЕКРЕАЦІЙНИХ РЕГІОНАХ ОРГАНІЗОВАНІ ГРУПИ СПОЖИВАЧІВ**

Підприємства ресторанного господарства при санаторіях, туристичних комплексах, дитячих таборах, зобов'язані при складанні меню дотримуватися фізіологічних норм в харчових раціонах на протязі терміну перебування груп споживачів, згідно вимог до фізіологічних потреб людини. Згідно контингенту, розроблені відповідні раціону харчування. Тому, при складанні меню підбирається потрібний варіант, розраховуються витрати сировини на його реалізацію, та обов'язково проводиться порівняння зі встановленими нормами.

Ключові слова: меню, принцип варіабельності, принцип структуризації, принцип адаптації.

A. A. SABADOSH**МЕХАНИЗМ РАЗРАБОТКИ МЕНЮ ДЛЯ ПРЕДПРИЯТИЙ РЕСТОРАННОГО ХОЗЯЙСТВА ОБСЛУЖИВАЮЩИЕ ОРГАНИЗОВАННЫЕ ГРУППЫ ПОТРЕБИТЕЛЕЙ В РЕКРЕАЦИОННЫХ РЕГИОНАХ**

Предприятия ресторанного хозяйства при санаториях, туристических комплексах, детских лагерях, обязаны при составлении меню придерживаться физиологических нормы в пищевых рационах на протяжении срока пребывания групп потребителей, согласно требований до физиологических потребностей. Исходя из контингента потребителей, разработаны соответствующие рационы питания. Потому, при составлении меню подбирается нужный вариант, разчитываются затраты сырья на его реализацию, и обязательно проводится сравнение с установленными нормами.

Ключевые слова: меню; принцип вариабельности, принцип структуризации, принцип адаптации.

Introduction. Formulation of the problem in general. Restaurants – one of the most dynamic sectors of the food industry. His global "modernization" that took place in the late twentieth century, borrowing "European elements", created the preconditions for the formation of similar services for the population, which differ among themselves.

In determining the classification of services is food service, which is a service of production of culinary products and create conditions for its implementation and consumption according to the type and class of enterprise (restaurant, dining room, snack bar). Type and class enterprise determines the contents of this type of service – an introduction to food, beverage, and labor cost controls, defining a number of key terms and concepts and providing a foundation for the balance of the work as well as some sense of its scope.

It identifies working definitions for the terms cost and sales, discusses the control process in

some detail, and introduces the basics of cost/volume/profit analysis; the application of the four-step control process to the primary phases of foodservice operations: purchasing, receiving, storing, issuing, and production.

Specific techniques and procedures for each phase are explained and discussed in detail: to determining costs and using them as monitoring devices in foodservice operations, for example – deals specifically with food sales control, offering a broad definition of the term and providing detailed discussion of several approaches to sales control [1].

Information component specified service type – the menu enterprise which can not be permanent because the company restaurants should change technology program to meet demand, improving the quality of products, improve its nutritional value. The choice of products is carried out by visitors to familiarize them with the menu enterprise.

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The goal of the work. The menu usually developed empirically for all types of enterprises. For businesses open type empirical approach to developing the menu, based on monitoring product demand is acceptable. For businesses serving organized groups (students, athletes, tourists, etc.) and for which developed the diet, this approach is not acceptable. Disadvantages of this approach is discussed below.

Formulation of the problem. In the restaurant business enterprise responsible employees are required in the preparation of the menu to implement food rations during the stay of these groups in the institutions on which is feed. The accounting cost of raw materials for foods included in the menu, according to food rations, time consuming, as carried out in several steps by the selection of dishes. That is the basis of experience, a selected menu option, calculated the cost of raw materials for its implementation, then compared with established norms. Further analysis of the magnitude of deviations of various raw materials. In order to reduce these deviations menu adjustments are made. The procedure lasts as long as these values are acceptable.

The level of acceptability set arbitrarily by experts of the company. That practice creates a situation in which specialists difficult to design menus, fully adapted to the diet. From the foregoing it appears that the actual problem is scientifically proven approach to developing the menu, particularly for businesses serving organized groups.

Research results. Today there are plenty of studies on nutrition, the impact of certain products and substances for health. However, the methodology for drawing up the menu for the restaurant industry enterprises available.

Menu as an object of research in the scientific literature is not widely considered. Most often makes recommendations on its development based on practical experience [1–3]. However, recent research conducted by the authors showed that the process of developing a menu can be scientifically justified [4, 5–12] and this process must be preceded by the formation of a system of technological development principles menu.

Aim:

- to set forth principles of development of menu for the enterprises of restaurant economy;
- to formalize the process related to procedure of development of menu;
- to provide the higher level of professionalism implementation of this work;
- to undertake the first steps from creation of methodology of development of menu for some types of enterprises of restaurant economy.

The main material research. It should be noted that food service whose content reflects menu consists of three components - production, sale and consumption organization. Therefore the drop can be seen as part of

the information, first, the production process (plan menus, menu-layout developed for production workers) and, secondly, the implementation of products to consumers. Thus, the menu should vary both in its content and functionality. Menu according to the French chef Fernand Puana performs three functions: "caresses the eye, causing appetite and informs visitors about what it costs await" menu actually performs other "duties", and in each facility they will be different. For example, the menu original design can become a "highlight" in a club-type institution in a democratic and cafes, while not accepted gastronomic restaurants detract from the culinary delights nor extravagant interior or intricately decorated menu. However, there is a general requirement for the menu of any type and establishments of any category, which can be expressed briefly: the menu should be effective, that trigger appetite and liking for school, help guests make the choice, and the hosts-selling and most profitable fashion dish.

However, the menu – a result of the production staff. Therefore, in accordance with GOST R ISO 9000-2001, the menu is the production company within which the modern approaches to solution quality. Assessment of quality services, including its information component, today is important.

The basis of assessing the quality of design menus to put criteria such as compliance menu business type and form of service that forms the view menu. Type menu to identify it with the type of company, look - with its intended purpose. In fact, the type, form and functionality of the menu can be viewed as its classification features.

The classification allows systematize information component services of food - the menu, and develop common approaches to its development.

Our studies allow to formulate the following basic design principles menu: the principle rationale list of dishes that are appropriate to include a menu variability principles, structuring drop adaptation to the type of business, the type of food, the principle of ensuring the implementation of technical menu that characterizes the technological capabilities of the company, principle of adapting the menu to the recommended diet.

Each of these principles is based on a set of rules, Guided by which you can avoid errors when developing menus. An analysis of each of the defined principles.

The principle of justification complexes selected dishes is that the menu should be tied to the type of enterprise, its technical capabilities, and taking into account that the list of foods that used to turn the menu is not stable, helped by a number of factors. First, the specific location of the natural resources of institutions that form the tradition of food. Secondly, commercialization businesses restaurants. Third, the use of new forms of customer service.

The principle of variability menu is to quickly respond to changing menus popytu.v It is based on

monitoring consumer demand for different groups of culinary products.

The principle of structuring menu is to separate it into parts, representing the range of certain groups of products which the consumer can order: cold dishes and appetizers, hot appetizers, first and second courses. This development approach allows menu standardize the work process. and a prerequisite for its proper execution.

The principle of adapting the menu to the type of enterprise is to provide a menu structure that determines

the approach to drawing up menus. Recommended standardized menu structure. Thus, adaptation to the type of menu enterprise is subject normative documents regulating requirements for range of products now (Table 1, 2). [2].

The menu is developed for both existing businesses and those that open. Analysis menu specific type of existing enterprises, monitoring consumers the advantages in choosing foods will help to map the dishes that are ordered most often, and dishes "outsiders" sale.

Table 1 – Signs of accordance of menu to the different types of enterprises of feed

№	The type enterprises	Signs describing the menu line business type enterprises
1	Restaurants specialized	The corresponding range of dishes and products complex manufacturing all groups. The corresponding range of wine-vodka products, confectionery manufacturing.
2	Bars	The corresponding range of drinks, cocktails snacks, desserts and pastry products.
3	Cafe	Wide range of hot and cold drinks. The corresponding range of confectionery and desserts.
4	Dining: Scope – general type, diet; contingent on consumers - at sanatoriums, the recreation, the estate, the industrial enterprise. school, student, etc.	A wide range of snacks, cold and hot dishes. culinary products, confectionery, fruit and vegetables.
5	Snack common type, specialized	The narrow range of culinary products from a certain type of raw material.

Table 2 – Classification and characterization of dietary menus on board

Cheats	Name	Allowed	Not allowed
VGGML	Vegetarian	Vegetables and fruits of all kinds	Meat, fish, animal products
AVML	Asian-vegetarian	Vegetables and fruits of all kinds	Meat, fish, animal products
WVML	Western-vegetarian	Vegetables, fruits and dairy products	Meat, fish, animal products
VLML	Vegetarian for Lacto	Vegetables, fruits and dairy products	Meat, fish, animal products
HNML	Hindi of menu	Chicken, lamb, fish, dairy products, vegetables	Beef, veal and cheese
MOML	Moslem	Fruits, vegetables, chicken	Pork, alcohol
KSML	Koshsrne	Kosher food	Not kosher food
BBML	For kids	Special meals for kids	Alcohol
CHML	Child's food	mild dishes	Alcohol
NLML	Delactosed	Fruits, vegetables, meats of all kinds	Dairy products
LSML	With mionectic maintenance of salt	Food without salt, low fat	Salt, nuts, alcohol, salty marinade
LCML	With mionectic content of calories	Lean meat, fish, raw vegetables, fruits, dairy foods low in fat	Fatty milk fat fish, meat, sugar, pasta, desserts, dried fruits
LFML	With mionectic content to the cholesterol	Chicken, lean meat, low-fat dairy products, raw vegetables, fruits	Fatty foods, egg egg yolks, fatty dairy products
FPML	Fruit	Fruits, vegetables of all kinds	-
DBML	Diabetic	Apples, pears, lean meats, dairy products	Bananas, grapes, pineapple, fatty meat, sugar, honey, bread
SFML	seafood	Fish of all kinds, fruits, vegetables	meat

Developing menu is important to represent all groups of culinary products that reflect the potential of the company, taking into account the required range,

seasonality.

For each type of enterprise can be their approaches to offer a menu of various dishes.

For example, for recreational region in restaurants and catering enterprises, the main rule include menu of dishes is a triad: local fame; dish should be functional, aesthetically appealing and the main motivation for inclusion dishes to the menu should be the formula: "Our company considers the average consumer's taste."

However, the menu should not be permanent. A role in improving the menu design should take advertising and presentation of foods, allowing customers to focus on all positions range. A popular trend in the preparation of the menu is offering meals, cooking which is carried in the dining hall of the company. semi dishes or cooking for those wishing to go on a picnic.

The principle of adapting the menu to the type of food. Its use in restaurants and catering enterprises, serving visitors who have certain religious beliefs, yet with health problems (diet), children (baby food). The basic rule to include food menu is full compliance with recipes and food technology type.

The principle of technical support in the implementation dining menu is to analyze the technical capabilities of the company to expand the range of dishes included in the menu, ensuring customers' expectations.

The principle of adaptation to the menu of food rations is particularly important for businesses serving populations over time, providing breakfast, lunch, dinner.

In order to scientifically based implementation of this principle prompted us to use mathematical models and methods to optimize the choice of recipes of dishes from the existing process documentation developed and adapted the menu to the food rations [3, 13–17].

Determined following algorithm development menu:

- Determination of the daily requirement of raw materials and nutritional value of diets;
- Definition of technical documentation that regulates food recipes for a particular category of consumers;
- Determination of the multiplicity of use dishes that are made for specific recipes for the planned length of time;
 - Differentiation dishes based meal times;
 - Arrangement of dishes for different meals given daily requirement of food;
 - Analysis menu developed in terms of the use of the daily requirement of food;
 - Analysis of the nutritional value of the developed menu.

Multidimensional problem of choosing types of food and multiplicity of cooking using specific formulations for the scheduled time can be reduced to a series of one-dimensional problems (according to types of dishes of meat, fish, etc.).

All foodservice businesses, regardless of size or type, have certain processes in common. Whether the foodservice business is a fast-food restaurant or a fine

dining establishment, it must purchase supplies from purveyors either by phone, computer e-mail or Web page, fax, letter, or from a salesperson who calls at the establishment. Both types of establishment must receive the supplies when they arrive, and someone must verify that the quantity, quality, and price are the same as ordered. The food must be put away in dry storage, refrigerator, or freezer. When needed, the food must be taken from storage and prepared for customers who order it. Finally, the food must be served to them.

All foodservice establishments, then, have the following sequence of operation: Purchasing; Receiving; Storing; Issuing; Producing; Selling and serving. In each of these steps it is possible for unwanted and unwarranted costs to develop [1]. Menu engineering is the study of the profitability and popularity of menu items and how these two factors influence the placement of these items on a menu.

Conclusions.

In the first phase we considered only the choice of dishes. The task was formulated as follows: how often and at what recipes should prepare main dishes that carried out certain conditions which take into account the operating capacity of the process at different stages of cooking; turnover dishes on different days of food and limitations:

- 1) the total number of cooking main dishes of meat and fish for the entire planning period (24 days) must be at least 48;
- 2) the total number of main dishes (including dishes with cheese, eggs and vegetables) should be 72;
- 3) restrictions should be performed at the minimum and maximum use of specific formulations.

As a result of studies using the developed mathematical models and computer technology, we found the optimal solution of the problem for one of the types of companies – dining at the tourist complex.

Список літератури

1. Dittmer, Paul. Principles of food, beverage, and labor cost controls / Paul R. Dittmer. 2003 by John Wiley & Sons, Inc., New York. 593 p.
2. ДСТУ 4281. Заклади ресторанного господарства. Класифікація (затв. Держспоживстандарт України від 01.07.04).
3. ДСТУ 4527:2006 Послуги туристичні. Засоби розміщення. Терміни та визначення.
4. ДСТУ 4269:2003 Послуги туристичні. Класифікація готелів.
5. ДСТУ 3279-95 Стандартизація послуг. Основні положення.
6. ДСТУ ІСО 9001-2001. Системи управління якістю. Вимоги.
7. Правила роботи закладів (підприємств) ресторанного господарства: Наказ № 219 вид 24. 07. 2002 р. Міністерства економіки та з питань європейської інтеграції України.
8. Організація послуг харчування : підручник / А. И. Усіна, О. Ю. Давидова, И. В. Сегеда, Т. П. Кононенко. – КН. : КННУМН, 2014. 183 с.

9. Радченко Л.А. Организация производства на предприятиях общественного питания : учебник / Л.А. Радченко. Ростов на Дону : Феникс, 2011. 352 с.
10. Ассортиментный минимум блюд, напитков и кулинарных изделий, рекомендованных для разных типов предприятий общественного питания : Приказ № 365.
11. Новікова О.В. Організація харчування та обслуговування туристів на підприємствах ресторанного господарства: навчальний посібник / О. В. Новікова, Л. Сегеда І. В. Особливості обслуговування споживачів туристичних послуг. Економічний простір: збірник наукових праць. Дніпропетровськ: ПДАБА, 2009. №28/2. С. 67–74.
12. Економіка гостиниц и ресторанов: практикум: монография / Ефимова-Стадник О. П. и др. Минск: БХЭУ, 2013. 204 с.
13. Фоменко Н.В. Рекреативні ресурси та курортологія: Навч. посібник. / Н. В. Фоменко. – К.: Центр навч. лит., 2007. 312 с.
14. Бухкало С.І. Загальна технологія харчової промисловості у прикладах і задачах (інноваційні заходи). [текст] підручник. / С.І. Бухкало. – К.: ЦНЛ, 2014. 456 с.
15. Бухкало С.І. Загальна технологія харчової промисловості у прикладах і задачах (інноваційні заходи). 2-ге вид. доп. [текст] підручник. / Л.Л. Товажнянський, С.І. Бухкало, Денисова А.Є., І.М. Демидов та ін. – К.: ЦНЛ, 2016. 470 с.
16. Бухкало С.І. Загальна технологія харчової промисловості у прикладах і задачах (прикладі та тести). 2-ге вид. доп.: ч. 2, [текст] підручник. – К.: ЦНЛ, 2018. 108 с.
17. Бухкало С.І. Загальна технологія харчової промисловості у прикладах і задачах (тестові завдання). [текст] підручник. / С.І. Бухкало. – К.: ЦНЛ, 2014. 412 с.
5. DSTU 3279-95 Standartyzatsiya posluh. Osnovni polozhennya.
6. DSTU ISO 9001-2001. Systemy upravlinnya yakistyu. Vymohy.
7. Pravyla roboty zakladiv (pidpryyemstv) restorannoho hospodarstva: Nakaz № 219 vid 24. 07. 2002 r. Ministerstva ekonomiky ta z pytan' yevropeys'koyi intehratsiyi Ukrayiny.
8. Orhanizatsiya posluh kharchuvannya : pidruchnyk / A. I. Usina, O. YU. Davydova, I. V. Sehed, T. P. Kononenko. – KH. : KHNUMH, 2014. 183 p.
9. Radchenko L.A. Orhanyzatsyya proyzvodstva na predpryyatyakh obshchestvennoho pytanyya : uchebnyk / L. A. Radchenko. Rostov na Donu : Fenyks, 2011. 352 p.
10. Assortymentnyy mynumum blyud, napytkov y kulynamykh yzdeliy, rekomendovanny dlya raznykh tyrov predpryyatyy obshchestvennoho pytanyya : Prikaz № 365.
11. Novikova O.V. Orhanizatsiya kharchuvannya ta obsluhovuvannya turystiv na pidpryyemstvakh restorannoho hospodarstva: navchal'nyy posibnyk/ O. V. Novikova, L. Sehed, I. V. Osoblyvosti obsluhovuvannya spozhyvachiv turystychnykh posluh. Ekonomichnyy prostir: zbirnyk naukovykh prats'. Dnipropetrovs'k: PDABA, 2009. №28/2, pp. 67-74.
12. Ekonomyka hostynits y restoranov: praktykum: monohrafiya /Efymova-Stadnyk O. P. y dr. Mynsk: BHÉU, 2013. 204 p.
13. Fomenko N.V. Rekreatsiyni resursy ta kurortolohiya: Navch. posibnyk. / N.V.Fomenko. – K.: Tsentri navch.lit., 2007. – 312 p.
14. Bukhhalo S.I. Zagal'na tehnologija harchovoi promislivosti u prikladah i zadachah (innovacijni zahodi). 2-ge vid. dop. [tekst] pidruchnik. / S.I. Bukhhalo. – K.: CNL, 2014. 456 p.
15. Bukhhalo S.I. Zagal'na tehnologija harchovoi promislivosti u prikladah i zadachah (innovacijni zahodi). 2-ge vid. dop. [tekst] pidruchnik. / L.L. Tovazhnjanskij, S.I. Bukhhalo, A.Є. Denisova, I.M. Demidov ta in. – K.: CNL, 2016. 470 p.
16. Bukhhalo S.I. Zagal'na tehnologija harchovoi promislivosti u prikladah i zadachah (prikladi ta testi). 2-ge vid. dop.: ch. 2, [tekst] pidruchnik. – K.: CNL, 2018. 108 p.
17. Bukhhalo S.I. Zagal'na tehnologija harchovoi promislivosti u prikladah i zadachah (testovi zavdannya). 2-ge vid. dop. [tekst] pidruchnik. / S.I. Bukhhalo. – K.: CNL, 2014. 412 p.

References

1. Dittmer, Paul. Principles of food, beverage, and labor cost controls / Paul R. Dittmer. 2003 by John Wiley & Sons, Inc., New York. 593 p.
2. DSTU 4281:2004. Zaklady restorannoho hospodarstva. Klasyfikatsiya (zatv. Derzhspozhyvstandart Ukrayiny vid 01.07.04).
3. DSTU 4527:2006 Posluhy turystychni. Zasoby rozmishchennya. Terminy ta vyznachennya.
4. DSTU 4269:2003 Posluhy turystychni. Klasyfikatsiya hoteliv.

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