

INDUSTRY OF CATERING: LOGISTICAL AND GEOGRAPHICAL DIMENSION

Considered logistical and geographical features of catering – one of contemporary forms of restaurant services. Particular attention is paid to providing catering logistics far from production facilities (or so-called «touring» catering). Proposed as a logistics base of catering package of measures «economical production + six sigma», which covers the system of Kaizen and Gemba Kaizen, (including subsystem 5S), Kanban, ERP, TPM, SMED, VMI, SCM, as well as ISO 9000. Displace essence of social catering and specificity of its logistics.

Key words: restaurants, catering, logistics, social catering, Kaizen, Kanban.

Ігор Смирнов. ІНДУСТРІЯ КЕЙТЕРИНГУ: ЛОГІСТИЧНИЙ ТА ГЕОГРАФІЧНИЙ ВИМІРИ. Розглянуто логістичні та географічні особливості кейтерингу – новітньої форми виїзного ресторанного обслуговування. Особливу увагу приділено логістичному забезпеченню кейтерингу на значній відстані від виробничої бази (або т.зв. «гастролюючого» кейтерингу). Запропоновано в якості логістичної підстави кейтерингу комплекс заходів «економне виробництво+ шість сігма», який охоплює системи «Кайдзен» та «Гемба кайдзен», включаючи підсистему 5S, а також Канбан, ERP, TPM, SMED, VMI, SCM, та ISO 9000. Відображено сутність соціального кейтерингу та специфіку його логістичного забезпечення.

Ключові слова: ресторанний бізнес, кейтеринг, логістика, соціальний кейтеринг, кайдзен, канбан.

Ігорь Смирнов. ИНДУСТРИЯ КЕЙТЕРИНГА: ЛОГИСТИЧЕСКОЕ И ГЕОГРАФИЧЕСКОЕ ИЗМЕРЕНИЯ. Рассмотрены логистические и географические особенности кейтеринга – новейшей формы выездного ресторанного обслуживания. Особенное внимание уделено логистическому обеспечению кейтеринга на значительном расстоянии от производственной базы (или т. наз. «гастролирующего» кейтеринга). В качестве логистической основы предложено комплекс мероприятий «экономное производство + шесть сигма», который охватывает подсистему 5S, а также Канбан, ERP, TPM, SMED, VMI, SCM, и ISO 9000. Отображена сущность социального кейтеринга и специфика его логистического обеспечения.

Ключевые слова: ресторанный бизнес, кейтеринг, логистика, социальный кейтеринг, кайдзен, канбан.

Formulation of the research problem. Logistics in the restaurant business, which a few years ago was called «terra incognita», now covers almost all of its areas, in particular, this applies to catering. In traditional restaurant or fast-food restaurant sale and consumption occur usually in the client area, which is located in the same building or on the ground nearby and often under the same roof with the production area (kitchen). The defining feature of catering is a significant territorial remoteness of place of consumption from industrial base of catering company. So there is natural that transport and logistics organization is in the forefront of the catering business issues. Catering logistics is distinguished not only as important, often critical element of success of business projects, but it also increased their complexity and responsibility, especially with regard to its service far away from the production base place. Logistical specificity has also one of the newest trends of catering - social, aimed at catering service of organized groups, for example education, medical, military, correctional institutions, etc..

The article subject is not yet sufficiently **covered in the literature**, but such authors can be mentioned as A. Kizim [5; 6], I. Smyrnov [1, 465-485; 2; 3; 4], K. Pogodin [7] A. Nikiforov [8] and others. So, logistical features of catering are disclosed not completely and require further research and practical developments, particularly in the case of Ukraine.

The aim of the paper is to describe the features of catering logistics as a new form of restaurant service, including catering logistics peculiarity at a considerable distance service from the productive base (i.e., remote catering) and to reveal the essence of social catering and specificity of its logistics support.

The main material. Catering business in the world today is leading kind of a traditional restaurant

business and it gradually becomes popular in Ukraine. The main areas of catering is commercial catering and social one. These two areas have their own logistics specificity, and their similarity is related to the need for a production base. General structure of the enterprise of catering and its logistics scheme and activity is shown in Fig. 1. So, the structure of catering company usually includes: office, which houses the staff, selling and organizational events; facilities of tastings (if possible); manufacturing plant; warehouses to store food, equipment and special equipment; vehicles (if needed regular visits).

Staff of catering company depends on the type of service provided in coordination of all the details of the event together with customers. The cooks staff may consist either of chef-cook, or a group of specialists in nutrition – it depends on the event. The company may employ or hire other staff (waiters, bartenders, dish-cleaners, etc.). Studio of decorators, florists, entertainers may be hired (or created its own) if necessary.

In world practice there are the following types of catering: 1. Catering in the office – provides that the person owns or leases the premises. This type of business organization is used in daily food serving businesses, companies and business centers. When organizing catering at the business center, cafeteria operator pays rent and utilities, so it is important to reach understanding with the owner of the house and get better terms. Significant overhead expenditures causing quite a high price for this type of catering, but the presence of space to store food and equipment are its advantages over other types.

2. Catering outdoors is the fastest growing types of catering. So, in this case, on the one hand there is no need in the premises to customer service, but on the other – you need special equipment and vehicles to transport meals. Examples of this type of catering are delivering meals to offices, organizing barbecues, gour-

met dinners, school events and so on. This usually involved small firms that deliver food in a single container or Termobox. Similarly maintenance of various events (banquet catering) is carried out – in this case the company may offer, in addition to a certain range of foods and beverages, room decoration, waiter service, entertainment programs.

3. Individual catering - belongs to the simplest of its kind when cooking is done on client's premises and under his control, including cleaning. In this segment, catering firms are not spending funds to build or lease facilities and to purchase equipment, which is important for entrepreneurs – beginners in this business.

4. Moving catering - in many cases it is part of a large project business in catering. Under this form of service food is prepared, delivered to customers place and sold. An example of this type of catering is selling food stuff from the cars.

5. Retail catering is selling products at stadiums and theaters, and other areas with large concentrations of people. This type of catering, as well as others, also involves a combination of its production, transportation (delivery at the point of sale) and commercial (sales) components.

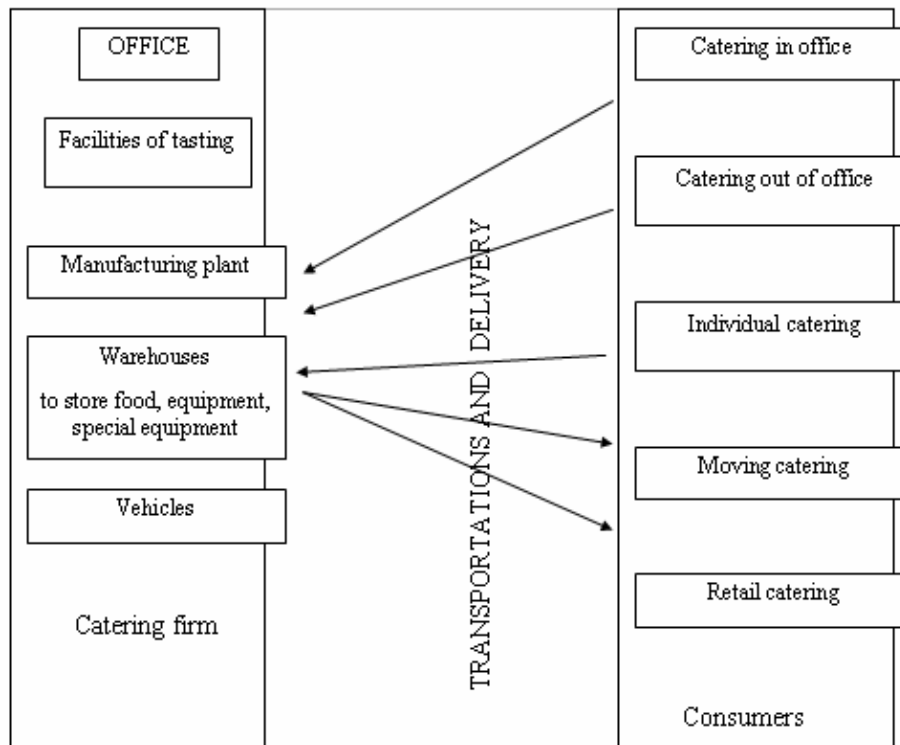


Fig. 1. Logistical scheme of catering business

Catering in Ukraine is just beginning to grow and is reflected, for example, to deliver pizzas to customers (this is outdoors catering). At the same time, catering is interesting to traditional restaurants, as any client can order for a celebration (e.g. birthday) cooks, waiters, who may organize the holiday not worse than in the restaurant. That will get a banquet at the third cheaper because in the restaurant there is payment for the interior. The catering system actively use various innovations, including outstaffing, outsourcing, marketing, franchising, finally, logistics, which plays a particularly important role in enterprises of restaurant industry. In the field of mass nutrition as in the restaurant business, there are specific features of functional types of logistics in the enterprise, especially the supply logistics and marketing. As to the first direction, it is necessary to choose not only high-quality raw materials, but also suppliers that can provide the necessary materials at the right time and in the right amounts. Working with raw stock is important to understand that most of it - are perishable products. So you should plan the necessary amount of raw

materials to minimize losses in order not to failure. And that leads to the need for more stringent conditions of supplier selection, therefore, there is a prerequisite for the implementation of logistics concepts and practices in supply activities of restaurant and catering business .

One way to improve services and reduce costs in the restaurant and catering business is to use logistic supplier selection. The method of selection and supplier management is essential in terms of higher market requirements which are present in the modern restaurant business (more details on that – in textbooks and papers of the author [1, 465-485; 2; 3; 4]). The modern tendency is to purchase all of necessary products on market instead of creating its own production, to achieve reduction of inventory, integration suppliers and manufacturers into one system etc. It determines the need for constant supervision of the efficiency of restaurant suppliers. However, the organization of mass food enterprises supply is often faced with various challenges, such as: non-delivery, short delivery or late delivery; low quality of the set, and so on. Similar disruption of supply in the

restaurant business leads usually to economic losses (lost benefits and so on).

Studies that were made among companies of catering business showed that 50% of the reserves to reduce their costs is in the area of procurement; the rest – in the management and organization of production, logistics and other areas [5]. This indicates the presence of vast opportunities for optimization of the procurement process, including in the restaurant and catering business.

Indeed, the bigger is the catering event, the more complex is its organizational structure, the harder its logistics and all the preparatory work. This is especially true for projects involving the service at long distances. Catering companies (restaurants or relevant units) may go on maintenance activities not only within their native city. Yes, there are orders that require trips of large distance – at 10-30 km from the nearest suburbs to a distance of 100 km in other regions. Such measures may include all formats like cocktails, buffets, banquets – both indoors and outdoors. Sometimes the customer is committed to bring something individual to the format of service, so catering company has to take this into account. Of course, every event, especially one that is organized at a considerable distance from the production base of restaurant, necessarily involves complex logistics project regardless of size and scale. In this case, any failure could threaten success of event. To fulfil the task of catering company in this situation, the possibility of using the necessary equipment is needed.

The main difficulty is not only to maintain, but to prepare the logistics of the project. In order to prepare successful event catering company first must go to a technical meeting, although such inspection is not always possible because of its cost. Lack of sufficient information about the area, inaccurate agreement with the customer, barriers to communication can potentially create great difficulties in the logistics services of the catering project. Another problem of catering is that it is not always possible to find a supplier of quality products at wide range of high quality, because delivering to another city or region might mean that some dishes can not be cooked over there. In addition, there is a problem of personnel outsourcing to service the event at considerable distance. Often it is inevitable to use local hired staff when making large remote projects of catering, because there is a need to transport a large number of personnel, that means high costs that can turn a project impractical from a commercial point of view. Thus, a key factor in the successful implementation of catering project at large distance is the ability to organize a clear interaction with the staff involved, and also to make high-quality instruction and supervision of their work.

In preparation of far away events using local produce will inevitably increase liability risks for catering company for the final quality of the cooked dishes. The least risk to the successful implementation of the project on a remote site (or "on tour" catering) is to draw on the spot only occasional staff that does not require special skills. Hired cooks and waiters, even under the careful guidance of field staff of catering companies require great attention and responsibility. Logistics shipping costs of the necessary equipment and personnel, as well

as accommodation of the latter, of course, assumes the applicable standard algorithm for calculating the cost of the event. Certainly, this experience in catering business always means development, as any complex project helps catering company to become better and improve its work. Any projects of high complexity, which include far removed catering services are useful for restaurant as an additional check of consistency in the work of all catering services.

According to the opinion of K. Pohodin [7], the implementation of such projects that extends beyond the usual zone of services allows catering company to enrich its customer base, thus leading to the success of the core activities of the company. It often happens that customers are putting unusual task to fulfill useful and interesting targets from their point of view. And that is exact situation when it is necessary to do something in difficult conditions thus producing new technological and organizational solutions.

We can support offer made by A. Kyzym and V. Babak [6], that the system of catering services should widely use advanced logistics concepts, including the concept of economical production that can lead to optimization of production costs in general. This is a set of activities called "Lean Six Sigma", the main tools of which are:

1. Kaizen and Gemba Kaizen (Jap.) - Theory and Practice of "economical production" [see details. 1.523].
2. 5S System [see. 1, 514].
3. KANBAN System (Jap.) - the system of production and distribution "just in time".
4. ERP System (Enterprise Resource Planning).
5. TPM System (Total Productive Management).
6. Rapid readjustment system SMED (Single-Minute Exchange or Die).
7. ICO Quality Management System 9000.
8. VMI System (Vender Managed Inventory).
9. SCM System (Supply Chain Management).

The use of this tools will contribute to improve quality of catering business.

Almost 20 years have passed since catering introduction in Ukraine. Among most dynamic kinds of it are event catering and corporate catering, industrial catering, "on tour" catering and so on. Recently the social catering appeared in Ukraine, which involves the organization of nutrition in schools, hospitals, military and correctional facilities. In spite all the differences in economic status, health and food traditions algorithm of providing socially oriented nutrition (for students, soldiers, workers, employees of business centers, etc.). It's benefit is in its industrialization and the introduction of advanced technologies. Leading industry experts stress the need of its modernization.

The experience of developed countries confirms this fully and gives fantastic, by our standards, examples where 5-6 chefs can provide daily hot meals for 25-30 thousand clients. The state is seriously concerned about the health of children and adolescents. The current system does not provide a school meal quality and balanced diet. As a result, there is a "bouquet" of school disease (like obesity, anemia, etc.) in a significant percentage of students (in Ukraine - 30% [6]). However, in most cases, a business can not afford to organize a quality nutrition

service for the money offered by the government. One problem is that customers - government organizations - regularly put requirements on food menu. "On the one hand, strict set of products whose value may change in the market, on the other - price restriction menus" - directors of food chain complain [8]. Under the laws of Ukraine food operators can collaborate with social institutions only in case of winning the tender, which the Ministry of health organizes. In this case, the main criterion is the price of products. In addition to the cost of food products operator also spends money on personnel and equipment that is no secret in the state institutions is often outdated.

It is well known that the main "engine" of social segment (or complex) is a state which in any country and around the world in this segment allows activity of private business, giving some support to it. For example, in France, private investment in the creation of a central kitchen, which is necessary for the maintenance of schools, military or prison has payback time approximately 5-10 years. As for our northern neighbor, the social catering has got some development in nutrition of education and health facilities in Moscow, where the outsourcing accounts for 6.2 and 4.9% of those huge markets or approximately \$2.8 and \$1.5 billion [10].

One of the world leaders in the field of catering is the «Sodexo» company that has considerable experience in the social service sector. On a global measure this company introduces two models of activity. First – with the central kitchen, when the social object staff has only to heat meals and maybe to prepare some salads. In the second model, which has successfully proven itself in Ukraine, one of social facilities with kitchen prepares meals for a few others, for example, for the next 5-6 schools. «Sodexo» company recently expanded the scope of its activities to Russia: for over a year, it works with the largest and most modern hospitals in Moscow. Each floor of the hospital has eating-room where patients who can get to this room, take away food themselves. The rest got trays with meal transported to them. The company operates in 5 special diets that have been previously agreed upon with the management of the hospital. In the tender held for Russian schools, «Sodexo» is not involved because the company can not afford to organize quality foods for the money offered by the state.

Meanwhile, schools of several Moscow Districts (261 schools) were taken over by the Russian company "Concord", which built from the ground up new central kitchen in a village near Moscow and immediately principals, students parents and journalists were informed about the technological features of school meals preparing. The general principle is quite simple: all dishes are prepared in the central factory-kitchen and then are transported to schools where school cooks heated them and still have time for salads, fruits, pastries. Not all at once liked this "globalization", many suspected the new system of school meals to be a kind of "fast food" or "on-board food", there was even a tough debate in the press. True, the company itself initially had difficulties and dozens of schools were left in September 2011, without breakfasts and dinners. In addition, this company could not establish a process in proper time deliver-

ies, proper logistics (logistics operations of handling and sorting) and even had to attract free soldiers labor, whereas the "Concord" provides food for the troops as well. [11].

One of the new areas of expansion of services catering today was school graduation parties. Every year, high school graduates are increasingly turning to this service. In 2007, catering service for school graduation parties approached 15%, in 2011 - 42%, in 2012 - 65% of their total quantity. According to experts, this trend is now bringing for catering and event companies tens or even hundreds of million UAH, as the cost of "graduation party super" in elite Kiev, Donetsk, Kharkov and so schools measured 5 to 6 digits (in UAH).

In the area of social catering logistics has an important role to play. Social catering, which provides services in social institutions where the daily food rations are divided into 3 to 5 times a day and require constant transportation of meals throughout the day, in contrast to all other types of catering, where products are delivered once before the event. In this regard, the main item of expenditure, especially for small companies is transport and logistics shipping for all orders. Such logistics sometimes is so complex that some catering companies, particularly small, have to give up orders.

Let's note that today social catering in Ukraine is almost untapped by major logistics players, although many companies are interested in this market segment of mass nutrition. Today law paragraphs and low rates at which catering firm would supply food to social institutions prevent to do this. For example, the state assigns 3-6 UAH per day for food per person in health care [12], but for the business to be profitable in this segment, you need at least 30-40 UAH per day. Furthermore, according to the rules developed in Soviet times, each high school must have its own kitchen of complete cycle. That's why catering companies can not supply food to schools. Thus, changes in law can affect positively to solve many of the problems that hinder the development of social catering in Ukraine.

Conclusions. Catering or restaurant outdoor service, is now one of the most dynamic sectors of the restaurant business in Ukraine. In the system of catering extremely important components are transport and logistics issues. In particular, it concerns the supply and distribution logistics. Accordingly, there is a big importance of logistics in catering services, particularly in the case of a remote outdoor restaurant service. Catering now has many variations. One of the newest is a social catering, i.e. providing food for social facilities - educational and medical institutions, military, correctional institutions, etc.. There are some difficulties associated with legislative and price constraints in the public sector, but international experience shows high efficiency of catering activities in the social sphere. A significant role in this is played by logistics, which in the case of social catering is very complicated. Introduction and using the global logistics gains in catering services, without doubt, is a useful and interesting in terms of modern restaurant business development in Ukraine, where the catering segment is currently one of the fastest growing.

References:

1. Oliyuk Y.B., Smyrnov I.G. *Mizhnarodna logistyka: Navch. posib.* / Y.B. Oliyuk, I.G. Smyrnov. – K.: Obrіi, 2011. – 544 p. [Олійник Я.Б., Смирнов І.Г. *Міжнародна логістика: Навч. посіб.* / Я.Б. Олійник, І.Г. Смирнов. – К.: Обрії, 2011. – 544 с.]
2. Smyrnov I.G. *Restoranna logistyka: mizhnarodnyj ta ukrayinskyj aspekty* / I.G. Smyrnov // *Zovnishnya torhivlya: pravo ta ekonomika*, 2009. - № 4 (45). – S. 4-18. [Смирнов І.Г. *Ресторанна логістика: міжнародний та український аспекти* / І.Г. Смирнов // *Зовнішня торгівля: право та економіка*. – 2009. - № 4 (45). – С. 4-18].
3. Smyrnov I.G. *Informaciyna logistyka u skladі restorannoyi logistyky* / I.G. Smyrnov // *Nauka: teoria i praktyka: Materialy IX Miedzynarodowej naukowo-praktycznej konferencji.* – Volume 3. *Ekonomiczne nauki. – Przemysl*, 2013. – S. 37-44. [Смирнов І.Г. *Інформаційна логістика у складі ресторанної логістики* / І.Г. Смирнов // *Наука: теорія і практика: Матеріали ІХ Міжнародної науково-практичної конференції.* – Volume 3. *Ekonomiczne nauki. – Przemysl*, 2013. – С. 37-44].
4. Smyrnov I.G. *Restoranna logistyka: informaciyna skladova* / I.G. Smyrnov // *Geografiya ta turizm.* – 2013. – № 25. – S. 42-50 [Смирнов І.Г. *Ресторанна логістика: інформаційна складова* / І.Г. Смирнов // *Географія та туризм.* – 2013. – № 25. – С. 42-50].
5. Kizim A. *Logistika v sisteme keyteringa kak kliuchevoy sostavlyayushey restorannogo biznesa* / A. Kizim, V. Babak // *Logistika.* – 2012. - № 12. – P. 28-31. [Кузім А. *Логістика в системі кейтеринга як ключової складової ресторанного бізнесу* / А. Кузім, В. Бабак // *Логістика.* – 2012. - № 12. – С. 28-31].
6. Kizim A.A. *Sotsialnyj keytering kak dominantnaya sostavlyayuschaya obschestvennogo pitaniya* // A.A. Kizim, V.A. Babak // *Teoriya i praktika obschestvennogo razvitiya.* – 2012. - № 11. – P. 35-40. [Кузім А.А. *Соціальний кейтеринг як домінуюча складова суспільного харчування* // А.А. Кузім, В.А. Бабак // *Теорія і практика суспільного розвитку.* – 2012. - № 11. – С. 35-40].
7. Pogodin K. *Restoran vyezdnoho obsluzhivaniya (keytering)* / K. Pogodin. – SPb: Piter, 2012. – 220 s. [Погодин К. *Ресторан виїзного обслуговування (кейтеринг)* / К. Погодин. – СПб: Пітер, 2012. – 220 с.]
8. Nikiforov A. *Sotsialnyj keytering. Kto nakormit organizovannye kollektivy?* [Elektronnyj resurs]. – Rezhim dostupa: www.tour.ru/food/articles [Никифоров А. *Соціальний кейтеринг. Хто накормить організовані колективи?* [Електронний ресурс]. – Режим доступу: www.tour.ru/food/articles].
9. *Vozmozhen li v Rossii sotsialnyj keytering?* [Elektronnyj resurs]. – Rezhim dostupa: www.vedomosti.ru [Возможен ли в России социальный кейтеринг? [Електронний ресурс]. – Режим доступу: www.vedomosti.ru].
10. *Sotsialnoe pitaniye: prokormit i prokormitsya* // *HORECA Magazine.* – 2011. - № 11. – S. 10-12. [Соціальне харчування: прокормити і прокормитися // *HORECA Magazine.* – 2011. - № 11. – С. 10-12].
11. Fridmann A. *Rossiyskij rynek keyteringa – nachalo i dostignutyj progress* /A. Fridmann // *The Russia Corporate World.* – 2012. - № 16. – S. 18-19. [Фридманн А. *Російський ринок кейтеринга – початок і досягнутий прогрес* / А. Фридманн // *The Russia Corporate World.* – 2012. - № 16. – С. 18-19].

Summary

Igor Smyrnov. INDUSTRY OF CATERING: LOGISTICAL AND GEOGRAPHICAL DIMENSION.

A few years ago logistics in the restaurant business was called «terra incognita». Today logistics covers all areas of the restaurant business, in particular, it relates to catering – its outdoor form. In traditional restaurant or fast-food restaurant food's sale and consumption are usually in the client room, which is located in one building, and often under the same roof with the production area (kitchen). In contrast, the defining feature of catering is significant territorial distance of the consumption place from industrial base of catering company. So it is natural that catering business has on its forefront the issue of service's transport and logistics organization. Catering logistics has got not only important, often critical significance to the successful implementation of catering service projects, but also increases its complexity and compliance, especially with regard to its production base situated far away from events place. Catering is divided into two major divisions, namely - commercial and social. Catering company structure includes: a) office, which houses the staff involved in sales and catering management, marketing and service organization; b) tasting rooms (subject to availability); c) production plant (with kitchen); d) warehouses for storage of raw materials, beverage, equipment, special instruments; d) vehicles (if regular visits are needed). Staff of catering enterprise depends on the type of service provided. Of course this staff consists of managers, cooks and waiters, bartenders, dishes cleaners, cleaners. The last four positions of the staff can be hired permanently or for a specified period. If necessary, studios of decorators, florists, entertainers may be requested (or created its own). One way to improve services and reduce costs in the restaurant and catering business is to use concept of logistic supplier selection. Studies have shown that the procurement accounts for 50% of reserves of catering business to reduce costs. Especially important logistic works are for catering events at a considerable distance from company base. Any error in the logistics providing may threaten to disrupt event. Its specificity has got social catering logistics, ie catering of organized groups (in education, medicine, military, prison system etc.). Here it is necessary to provide daily meals 3-5 times with reliable transportation and logistics software. One has to take into account the social nature of such services, as it provided for a state institution at budget prices (no extra charge as for a commercial catering option). World experience shows that it is effective logistics that can ensure social catering profitability as well.

Key words: restaurants, catering, logistics, social catering, Kaizen, Kanban.