

CHAPTER 4. TECHNOLOGIES AND INNOVATIONS THAT ARE CHANGING THE RESTAURANT BUSINESS

4.1 MODERN TRENDS OF THE RESTAURANT BUSINESS

The time when there was no trip to the restaurant any related to technologies, passed. The thing that before it seemed like an innovation, such as online ordering pizza with delivery or free Wi-Fi in the institution has now become the default service. We offer consider how technology and innovation changed restaurant market which services already available and widely distributed, but which have not taken root.

For reference - results data researches of the restaurant market, voiced at one of the expert meetings sessions of the NRA Show:

- 71% of visitors institutions important possibility order takeaway food;
- 52% of guests wait in the restaurant free Wi-Fi;
- 47% of people expect that in the institution you can make previous order by phone;
- 78% of millennials looking for the establishment's menu on the Internet;
- 32% of millennials already paid through Apple Pay and Google Pay.

All this suggests that it is now already it is not enough to simply answer standard restaurant criteria: guarantee only cleanliness, product quality and service. People choose manufacturability is also sought a place that can satisfy this request It is becoming more and more typical for our market.

Restaurant trends change quickly, especially due to the introduction of quarantine measures in different countries. If earlier delivery from a restaurant was not very popular, now most of the revenue comes from orders for delivery and takeaway. We will conduct an overview of the restaurant market and talk about how technology has changed the restaurant market, which services are already available in our country, and which have not caught on.

We have collected survey data on what will happen to the restaurant business in 2022. With the onset of quarantine, cafes and restaurants are now empty, the population is forced to stay at home and follow the rules. New trends in the restaurant business

help establishments stay afloat and not close. So, for example, several chains of pizzerias in the United States have hired more than a thousand employees due to increased demand after the opening of pizza delivery. Stores that were unable to reformat for delivery have closed, and even among those that remain open, the decline in sales is being felt very strongly across Europe and the United States. Surveys show that most people expect to see a reduction in spending during the crisis, especially for restaurant delivery and wine. That said, surveys have shown that people are likely to spend more on food delivery after the pandemic, and it's also likely that delivery demand will quickly return to pre-crisis levels.

Now about the trends that will affect the restaurant business in 2022. Delivery and takeout. Food delivery from a restaurant is the most important and relevant trend of recent years, which will only intensify in 2022. Especially if you plan to open a sushi bar or a pizzeria, this option is simply "must hev". Without it, it is extremely difficult to compete and, accordingly, quickly break even. And using the automation system of a sushi bar or pizzeria with an integrated delivery module will be a significant plus when launching this option in the establishment.

The culture of food delivery and online ordering is growing at an incredibly fast pace, especially during the pandemic, when establishments are closed to the public and only allow takeout or delivery (except for alcohol delivery and takeout). Delivery.com, Uber apps Eats, Caviar are some of the most popular in the world of food. In addition to delivery from regular establishments, the number of orders from "virtual" restaurants, which do not accept offline guests and prepare exclusively for delivery, is increasing. One of the new ideas on the market is "hubs" for virtual establishments: kitchens of different restaurants under one roof, between which autonomous cars run, taking orders and delivering them to customers. This lowers costs for establishments and makes delivery more affordable for visitors.

Trends in the development of delivery from institutions. Growth in the number of consumers and online orders. According to the latest study by ResearchAndMarkets, the volume of the global online food delivery market amounted to \$84.6 billion in 2018. According to analysts' forecasts, active growth will continue in the future - by an

average of 9.8% - until 2026. In Ukraine, the delivery segment also shows active growth: over the past 5 years, the market has grown by 35%.

A variety of channels and delivery methods. Millennials are priority audiences for delivery services. They, compared to other generations, spend a larger share of their budget on ordering ready meals. They put forward the highest demands: instant delivery, gamification, individual approach and tracking of the delivery process.

In order to meet the demands of their customers, delivery services introduce new technologies and simplify the order mechanism as much as possible. You can order on social networks, with the help of virtual assistants and from the car's navigation system.

For example, in the USA, pizza from Pizza Hut can be ordered and paid directly from the machine's digital menu, and from Domino's Pizza - just by retweeting pizza emoji In the same Pizza Hut has released a digital menu that determines the focus of the customer's eyes and offers the best pizza ingredients from 4896 possible combinations, integration in just 2.5 seconds.

Delivery services install their own tablets in establishments - it is on them that restaurants receive order notifications. However, waiters are forced to manually "enter" these orders into the restaurant's accounting system. Some US establishments may have up to 5-6 tablets of different delivery services. Such double work greatly delays the service process.

In 2018, leading delivery platforms finally started to address this pain point for restaurateurs, with GrubHub announcing integrations with five popular restaurant accounting systems and UberEats choosing to acquire online reservation system orderTalk to leverage their checkout integration expertise. Software integration will allow you to automatically send delivery orders to the facility's accounting system and receive all operational data from all sales channels in one place. Using your own program for automating delivery, integrated into the accounting system for a cafe or restaurant, also simplifies the process many times.

By organizing your own delivery service, you can save money by not spending it on aggregators ' delivery fees, which is important when the budget is tight.

The trend of the last few years in retail, when large offline stores switch to online sales and vice versa, as shown by Amazon. Multichannel in catering is also a combination of online and offline sales. Most of the offline establishments that have already adopted it effectively use their resources to increase sales, offering customers not only to visit the establishment, but also to order food to take home, or place an order and pick it up themselves.

Poster restaurant automation system, you can connect Poster Shop — a fully integrated online storefront for your establishment, and start accepting online orders. In Poster, you will be able to fully track the order from its acceptance from the site to the delivery of the order to the customer, view sales statistics and monitor the work of couriers, see more details about the automation of your delivery service. If you are looking for an accounting system for your business, find out what to choose Poster or r-keeper on the page comparing the advantages of Poster over other POS systems.

4.2 THE ROLE OF EVERYDAY AND HEALTHY FOOD IN THE RESTAURANT BUSINESS

Today, we barely have time to follow how the topic of a healthy lifestyle and proper nutrition is rapidly developing. New products are appearing all the time.

And scientists in this field make sensational discoveries about the benefits and harms of certain products, each nutritionist advocates his own nutritional system, and thus the requirements for products and food grow and grow [71].

More and more fast-casual restaurants are opening, a popular format for those who like healthy food, but do not like to wait a long time. In such establishments, guests receive food, close in quality to expensive restaurants, for little money, and the service here is slightly better than in fast food.

Restaurant "Fast Casual" - translated from English - "fast and democratic" - this format is the most promising in America, Europe and Ukraine. It is currently the fastest growing segment in the restaurant business industry. This is due to the fact that

consumption trends tend towards healthy food, organic products, and move away from fast food.

In America, the homeland of fast food, the first mention of establishments of the new restaurant format dates back to 1981. The term fast itself casual appeared a little later in the 90s of the last century. Guests place an order at the counter or counter. And when the order is ready, the food is delivered to the table by the waiter.

Fast Casual occupies an intermediate link between a democratic restaurant and fast food, it does not offer a full range of services that a restaurant can provide, but it offers a higher quality of food with fewer frozen or processed ingredients than in fast food restaurants. Meals are prepared individually for each client from high-quality products, as well as delicacies. Unlike fast food, a restaurant of this format offers a more diverse range of dishes, and common features are speed of service, low prices compared to restaurants, a democratic atmosphere, standardization of the menu, interior, management processes, as well as the possibility of using franchising. In these establishments, reusable dishes are harmoniously combined with a stylish interior.

Thus, the main advantage of Fast Casual is an opportunity to eat and spend time in one establishment for a relatively low price.

A mandatory condition of this restaurant is to maintain the offered range of dishes in full throughout the day. During peak hours, to speed up service, an additional cash register may be opened, and more cooks may work to portion out and distribute dishes.

To open an institution of this format, small premises and the presence of a kitchen factory are required. This has a beneficial effect on the cost of rent and gives restaurateurs the opportunity to make their business more attractive for themselves and their visitors.

Casual «ZRG format Dining». This format includes all democratic institutions, from pastry shops to bars and nightclubs. When creating a restaurant of this class, first of all, it is necessary to know for whom it is intended and in which place it will be opened. Modern consumers of restaurant services are divided into categories according to their preferences. Some go to restaurants exclusively to eat, for others the most important thing will be the atmosphere of the establishment, for some - what kind of

cuisine is presented in this or that place, some come to have fun and relax. The average check in these institutions is not high. Based on these indicators, it is necessary to choose the concept of the planned restaurant. The most popular concepts in this format are:

- confectionery;
- cafe;
- pub;
- steakhouse ;
- national restaurant;
- bar;
- a restaurant working on a mono product, etc.

Casual Dining - in the interior solution, it is a synthesis of elegant modern space and home comfort, natural charm without unnecessary mannerism and pathos.

The popularity of any catering establishment of this format directly depends on its interior, on the impression that the visitor will have. Most often, the interior design of a restaurant plays a big role for the visitor. In such institutions, people relax, communicate, and hold business meetings, so the interior design should contribute to this. On a subconscious level, the interior design shapes the guests' attitude towards the quality of the offered dishes. A high-quality interior design can mask some of the institution's shortcomings.

Casual Dining is a format that arose on the edge of fast casual and fine dining, something in between. Establishments that have a democratic pricing policy, as they determine the cost of their dishes in such a way that it is available to as many guests as possible. But in terms of restaurant design, quality of service and the level and presentation of dishes, they play in the premium class segment.

Today, we observe an increase in the number of restaurants of this format, while they can be completely different not only in size, but also in the direction of the kitchen and even in terms of guest expectations.

The format is difficult precisely because it tries to combine things that are not compatible with us - a high level of design and service with mass availability. That is

why one of the market experts called it a format without the right to make a mistake: these projects are developed in the direction of everyday consumption, and if you miss the quality of the product or service, you can get very negative results that will affect the further revenue and profitability of the establishment.

Casual concept Dining from various formats of fast food establishments in its high level of service and unique design, which is usually developed by a famous designer. And it differs from the premium class format in terms of price levels accessible to the general public.

Looking at all of the above, it should be noted that the design of restaurants of this format can be conventionally divided into two main parts: the design of the technical part and the development of the interior of the hall for visitors. The interior design of the restaurant should create the most comfortable atmosphere for the visitor, which contributes to a pleasant pastime. If we talk about the technical premises, then the aesthetics take a back seat here. Functionality and ergonomics are important here, so that the staff does not have any difficulties in their work.

It is not enough just to purchase and install technological equipment. Since prices in establishments of this kind become acceptable for a wide range of visitors, and the atmosphere inspires regular visits, the turnover of products is quite high. And this means that, on the one hand, it is necessary to cook quickly and a lot, and on the other hand, the quality of products and the technology of their preparation must be at a fairly high level. These two difficult-to-match tasks often put restaurateurs in a difficult position.

Summing up, I would like to note that the success of the establishment of the popular Casual format Dining is determined not only as it is traditionally considered with the location, but also with the interior design and equipment of technological premises. Therefore, the decision to design and equip the restaurant with equipment should not be based on the taste preferences of the owners, but on the basis of the professional knowledge and experience of specialists who have successful projects in their portfolio.

Quick and casual is fast service restaurants. They differ in service by waiters at the tables, but it happens faster than in other restaurants. The average check in such institutions does not exceed a small one. The menu features the same items as in other types of restaurants, but in a limited range. Restaurants of this level work on their own semi-finished products of a high degree of readiness, manufacture their own pastries, and, due to this, provide their guests with constant quality and speed of service. This format is suitable for holding business meetings and dinners. Such restaurants are usually located in places of intense traffic.

«Quick and casual» (quick kezhel - quickly and every day) is a very popular format of the establishment in Western Europe and America. Now this is the most dynamically developing segment of the American catering market. Its annual growth is about 17% (for comparison, restaurants - 4.9%, and Fast Food only 2.1%).

It is believed that the concept of " Quick and casual » originated in America in the 80s of the 20th century. It was then that many people appeared who, regularly eating in fast food, at some point felt that they were ready to pay a little more, provided that the food they consumed would be more diverse and of better quality than the usual hamburgers and hot dogs. They wanted to get restaurant food in a comfortable environment, but in a short time, since most of them worked, led a busy lifestyle and could not afford to turn every lunch into a long meal. Quite democratic prices are due to the fact that in such establishments a simplified recipe is practiced and, accordingly, lower prices are set than in ordinary restaurants.

«Quick and casual» exactly occupy the middle position between a restaurant and fast food. From restaurants, they adopted the high quality and tradition of cooking dishes, as well as the high level of service provided by waiters. The influence of fast food is manifested in the reduction of menu items, more democratic prices and the atmosphere of the cafe. Thus, you get restaurant-level food, but cheaper and faster.

The food in such establishments is prepared without restaurant finesse, but let's face it, pork "Al Risotto" or ravioli with mozzarella and mushroom sauce is not often prepared at home. At the same time, any dish is prepared individually for each client.

In order for the products used to prepare dishes to be as fresh as possible, they are brought to the cafe in small portions several times a day.

Although the concept is primarily aimed at adults, many establishments offer special dishes for children, i.e. in the cafe "Quick and casual" can be visited by the whole family, which is important in terms of family unity, as well as making sure that your children eat healthy food. The potential of such establishments also lies in the fact that they attract different categories of customers. People with high incomes can visit such cafes, as an alternative to fast food. And those with lower incomes consider «Quick and casual» as an accessible recreation for them outside the home.

As you can see, this is a very interesting and attractive concept that offers interesting solutions to many modern problems.. Automation and digitization of the institution's accounting system and receiving all operational data from all sales channels in one place. Using your own program for automating delivery, integrated into the accounting system for a cafe or restaurant, also simplifies the process many times.

4.3 PROBLEMS OF FINDING AND RETAINING STAFF IN THE PUBLIC CATERING MARKET

Every year, the number of working population decreases by 250-300 thousand. In addition, there is the problem of labor migration to the nearest European countries. The market of potential HoReCa employees is becoming smaller and smaller, and no one wants to increase the costs of the salary fund. Finding and retaining staff has become one of the main problems in the public catering market [73].

Under the conditions of the digital economy, the innovative development of economic systems is predetermined by two parallel and interrelated phenomena – globalization (open macroeconomic systems) and the transformation of models of the innovation process. Globalization 4.0 and the technological innovations underlying it lead the world to a new era of development – cyberphysical systems and talents – an era that has no historical precedent in scale, speed, and depth of change [70].

Management of innovative activities of business entities based on open innovations contributes to the growth of productivity, increase of profitability, effective use of intelligent property, dynamic development of the company in general [72].

Due to this, the trend of automation is developing in the world - more and more restaurateurs are integrating with technologies to optimize the speed of service and save on labor costs. According to the US National Restaurant Association, about 41% of fast food establishments in the US use tablets, discount ordering systems, self-service kiosks and automated restaurant applications.

Self-service kiosks. This is a trend for fast food and fast casual formats. In fact, the cashier becomes an extra link in establishments of this format, and restaurateurs try to replace him and minimize costs. This option is safer during quarantine, as there is no crowding around the cash register.

Cloud services. The tendency to store the institution's data not on its own server, but in the cloud is gaining momentum. Restaurateurs want full access to operational data and analytics from anywhere in the world, rather than depending on a single workplace. Not only tablet systems work in the cloud, traditional stationary automation systems also began to offer data storage on safer remote servers. If in the West, automation is primarily about increasing the speed and quality of guest service, then for our restaurateurs these goals are not yet the main ones. Business owners implement technology primarily to comply with the law, such as sending fiscal checks to the IRS and combating theft. Detailed accounting of the warehouse, inventory, detailed technological maps make it possible to better control work processes in the institution.

In many Western countries, there is no fiscalization and special requirements for the management of the institution, and the topic of theft is less relevant. Institutions do not keep records as carefully as our restaurateurs: recipes may not "kill", inventory is taken once every few months, etc. Less attention to accounting - more to speed of service and loyalty.

QR codes. More and more restaurants are avoiding the use of paper menus, as it is dangerous. The QR code menu is convenient to use because no additional equipment is required. Place the sticker on a table in the establishment and the guest will scan the

menu with their smartphone. use this technology so that the guest can pay for the order using a smartphone.

The QR code can contain various information: menu, delivery conditions, restaurant history or personal loyalty card data. With the help of the code, you can also create a calendar note with a promotion or event that will be held at the establishment, or you can simply redirect the visitor to the feedback page.

There is another practical application of codes. For example, Poster's latest integration with an app that helps guests summon a waiter or request a bill after scanning a QR code. Place a sign on each table or stick stickers on the menu. Visitors can scan the code using the camera and call the waiter or ask for the bill in the browser window.

Franchises. More establishments opened under franchises. Beginning entrepreneurs do not want to risk their project, so starting a business based on a successful and stable model looks much more attractive, which is confirmed by the statistics of open public catering establishments.

Monoproduct. Less than universal restaurants "sushi - pizza - hookah - karaoke". Guests increasingly prefer such establishments to narrowly focused cafes, pizzerias or hookah bars — places where their favorite dishes are prepared really tasty.

Fewer and fewer people are willing to settle for average quality in such supermarket restaurants, often for the same money as in cozy, atmospheric establishments. Hence the conclusion that it is worth focusing on monoproductions : burger joints, pizzerias, etc.

Pastries and sweets More bakeries and confectionery. Fresh baked goods are in demand all year round, and such establishments can be located both in residential areas and on central streets with high traffic.

Craft drinks and food. Interesting and fresh "craft" trend in everything: tableware, glasses and drinks. This is not only a fashionable phenomenon, but also a creative approach to reducing costs. The prices of imported products in Ukraine are constantly increasing, and by the end of 2021 the difference has already become almost 3 times. A few years ago, restaurateurs who wanted to stay in the market reviewed their menu

options and tried to switch to those products that they could afford under the new conditions.

The fall of national currencies led to the internal reorganization of restaurants and active reworking of menus. But it became the reason for the transition to local products, and not only economy, but also the premium segment.

Local products are a great alternative to imported counterparts. If earlier restaurateurs rarely looked in the direction of local farmers, now is their time. Taking into account unsustainable prices, the previously inflated prices of local manufacturers now look like extremely profitable cooperation.

A large number of new breweries appeared and even craft brandy, whiskey, gin and, of course, tinctures, many different types. Nowadays, only the laziest person does not add a couple of types of strong "homemade" alcohol to the bar menu. The tinctures themselves are most often made on the basis of vodka or the same craft whiskey with the addition of various juices and syrups. They are served both hot and cold, depending on the season. The cost of such a portion of 50 grams is 5-6 hryvnias, and in the menu they are displayed in the region of 35-50 hryvnias.

National and regional cuisine. A trend that has firmly settled in our country. In many cities of Ukraine, restaurants of national and local cuisine are opened in rather interesting interpretations: coffee shop, pub, pastry shop and fast food.

Georgian cuisine is particularly popular. Almost every second restaurant of national cuisine opened in 2021 is Georgian. Khachapuri, khinkali, suluguni in pita bread, dolma, lobio, khinkali and kharcho — all of this is very tasty, understandable to the guest and easy to prepare from local products in our countries.

Now is a good time to open a small family friendly restaurant with delicious food. For example, how a family from a small town in Kazakhstan did it, the story of opening a cafe The Meringue. Due to competition and rent increases, trendy "designer" restaurants, where interior designers made their names, rather than chefs, are gradually leaving the market. In the days when investors were still able to pay for it. Now people are not ready to take such risks.

Robotization in restaurants. For some reason, many believe that robots are still a distant future. In fact, it is not quite so. Now robots are divided into:

front of the house - work with guests;

back of the house - close tasks in the kitchen.

There are still more examples of the latter: robotic arms frying burgers (Miso Robotics), or machines that prepare salads to go (Spyce). Such technologies make it possible to achieve the same product quality in network establishments. Robots for work in the hall are still used less often and are very strange. For example, in the company Bear Robotics is a robot that replaces busboys in restaurants.

Robotics is seen as one of the most effective methods of solving the personnel problem in the future. It is not about replacing people with AI, but rather about optimizing the most understandable areas of employees' work.

Robots for the hall are still used less often. One of the latest novelties presented at the last NRA Show in Chicago is the Penny 2 robot (Bear Robotics). He knows how to move through narrow corridors, navigate in a crowd, deliver food and pick up dirty dishes. The new model has a tablet with which you can take orders and communicate with the guest.

That Food Company plans to launch in Los Angeles the world's first fully automated restaurant on wheels with robots and technology to prepare food and take orders. In Ukraine, the situation with technologies is not developing as quickly as in the USA: self-service kiosks and robots are still far from a mass phenomenon.

However, many establishments already work with cloud accounting systems, waiters use a smartphone or tablet instead of a notebook with a pencil, and there are screens with orders in the kitchens.

Face recognition. Self-service kiosks can be smart: identify the guest by face, offer him to repeat the previous order, and then automatically deduct money from the card. For example, in experimental mode, Face ID works on the Cali network Burger.

Aggregators of suppliers. "From the farmer to the table". Guests who are increasingly thinking about a healthy lifestyle want to get quality local products and know where and how they were grown, how they were transported and how it all affects

the environment. Against the background of such changes in consumer behavior, marketplaces are emerging that connect farmers and restaurants with geographic reference. These are, for example, services such as Podfoods.

Trends in the restaurant business that have not caught on. One way or another, after all, innovations in the restaurant business in 2021 took place. But, despite the rapid development of technologies and their implementation in the field of public catering, not all of them found a response among the guests of the establishments.

Menu tablets on tables in full-service restaurants. One of the most controversial technologies of recent years. The same applies to applications inside establishments for calling a waiter to order dishes. Practice shows that the usual way of communication between the guest and the waiter will most likely not change in the near future.

Communication and feedback from a live person is important to people in establishments with table service. Perhaps with personalization and understanding of the context, timely recommendations, tablets on the tables are waiting for a second chance.

One Chat-bots for ordering or reserving tables a technology that was exalted to the heavens, but which so far has shown itself very poorly in practice. Yes, it looks interesting and technological, but at the same time it is still used very rarely, despite the fact that the messengers themselves have already firmly taken their positions in everyday life. We have very few institutions that are constantly "crowded", where it is really difficult to get into. Therefore, such services, which are in demand in the USA, such as table reservations and queue management in the establishment, when guests receive a message on their phone as soon as it is their turn, practically do not work here.

As before, there is no normal way to pay tips by card. This is largely due to the imperfection of legislation in this area. Restaurant trends in Ukraine. First of all, it should be understood that the automation of institutions in our country and in most countries of the European Union and the USA serves different purposes. For us, the use of any technological systems is considered primarily as an obligation: for example,

compliance with the PRRO for a restaurant and sending fiscal checks to the tax office to ensure compliance with the law.

Fiscalization. In many foreign countries, there is no fiscalization and strict requirements for the management of the institution, so the technology market there follows a different path. Due to the heavy load on establishments and almost complete cashless payment, the best developed systems that optimize the speed of guest service are queue management services (wait list), deliveries, table reservations.

Where the problem of theft is practically irrelevant, establishments do not keep records as carefully as our restaurateurs. No one kills the recipes, the inventory is carried out infrequently. The least attention to accounting – more to the speed of service and loyalty.

Accounting systems. According to the US National Restaurant Association, 81% of restaurateurs in America today use any POS system or cash register. In Ukraine, this indicator is much lower, but there are fewer and fewer cases when an institution is opened without any accounting system. Institutions use mobile POS systems on tablets or stationary "box" options. Such systems allow you to optimize processes, minimize theft and reduce costs thanks to better control over the movement of goods and funds.

Food delivery from restaurants and cafes. This trend is developing in our country faster than others. For example, in 2018, a Spanish startup entered the Ukrainian market Glovo, and already at the beginning of 2019 – Uber Eats. In the realities of quarantine, delivery is what brings most of the profit to establishments.

Personalization and loyalty programs in applications. Restaurant marketing activities and loyalty programs are increasingly going into applications. In late 2018, McDonald's and Starbucks rolled out app-only promotions for the first time, while Burger King also tied them to geolocation : the network distributed free sandwiches to anyone who downloaded their program while standing within 200 meters of the main competitor – McDonald's. The promotion made the Burger app King is the most downloaded.