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Journ. Geol. Geograph. Geoecology, 28(4), 649-660.

Scientific-practical approaches to justification of location of quick service restaurants

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Received: 16.05.2019 Received in revised form: 04.06.2019 Accepted: 14.11.2019 Abstract. Research on specifics of selecting locations for QSR and assessing their potential is becoming increasingly vital in the conditions of high uncertainty and risks associated with the restaurant business. Therefore, the investigation of theoretical and applied fundamentals for justifying factors influencing the choice of QSR location is becoming more urgent. The

aim of this investigation is to consider the development of recommendations on the ways of applying the above mentioned fundamentals .Decisions on deployment of the operating system of service facilities including restaurants are strategic in nature. The key factors affecting location of projected QSR can be divided into general and specific, which consider the requirements for the territorial location of the facility in the city/area and the development site. Among them are: proximity to residential areas and other objects necessary for potential employees and consumers; availability, capacity and significance of transport routes, vehicle speed; volume of transportation of potential consumers, convenient access roads; composition and territorial dispersion of a cluster of product form and territorial competitors; availability of a high-professional competitive supply network; availability and proximity to traffic generators (magnets); size, configuration, relief and other technical features; its visibility; zonal restrictions (norms for development of the territory, consistency with neighbouring objects, possibility of organizing a parking lot); appropriate format of quick-service; possibility of reconstructing leased premises. Important variables in the decision to choose a QSR location include analysis of: 1) the routes of potential customers, their initial and final destination before/after visiting a QSR with «HOUSE», «WORK», «SHOPPING (ENTERTAINMENT) « AND OTHERS» being most decisive; 2) the size of the QSR's commercial area defined as the distance customers are mentally prepared to cover for visiting a restaurant; 3) focal distance providing division of the commercial area into sectors of 5, 10, 15, 20 and 30 minutes of accessibility and showing contribution of the inhabitants of each sector to the overall structure of the QSR sales; 4) existing and potential generators of QSR customer flows, requirements for their mutual location. When choosing a QSR location it is necessary to provide a realistic assessment of the market opportunities and threats to the QSR's further development; take into account sector specificity in determining the intensity of competition and market capacity; analyze flows of customers; substantiate the focal distance and the size of the QSR's commercial area; consider generators of QSR customer flows and specifics of their mutual placement.

Keywords: location of quick-service restaurants, commercial area, visitor flow generators, psychology of consumer behaviour.

Науково-практичні підходи до обґрунтування локації закладів швидкого обслуговування

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Аннотація. В умовах високого рівня невизначеності та ризикованості ведення ресторанного бізнесу дослідження специфіки вибору місця розташування закладів харчування швидкого обслуговування (ЗХШО) та оцінка його перспективності стає все більш актуальним. Дослідження теоретичних та прикладних засад щодо обгрунтування факторів впливу на вибір локації закладів харчування швидкого обслуговування складають основу даного наукового долідження. Розроблення рекомендацій щодо способів застосування зазначених вище теоретичних та прикладних засад стає основною метою цієї роботи. Рішення щодо дислокації операційної системи сервісних об'єктів, до яких належать і заклади ресторанного господарства, є стратегічними. Ключові фактори, що визначають вибір місця розташування проектованих ЗХШО, можна поділити на загальні та специфічні, які враховують вимоги до територіальної дислокації закладу у межах міста/району та майданчика забудови.

Серед них: близькість до житлових масивів й інших об'єктів, необхідних для потенційних працівників та споживачів; наявність, потужність та значення транспортних артерій; швидкість руху автотранспорту; обсяг транспортних перевезень потенційних споживачів, зручність під'їздів; склад та територіальна розпорошеність кластеру видових та територіальних конкурентів; наявність високопрофесійної конкурентоздатної мережі постачальників; наявність та наближеність до генераторів трафіку (магнітів); розмір, конфігурація, рельєф та інші технічні; його видимість; зональні обмеження (норми на розвиток та забудову території, сумісність з об'єктами по-сусідству, можливість організації паркувального майданчика); відповідність формату закладу; можливість проведення реконструкції у орендованих приміщеннях. Важливими змінними у рішенні про вибір місця розташування ЗХШО є аналіз: 1) маршрутів руху потенційних відвідувачів – їх початковий та кінцевий пункти призначення до/після відвідування закладу, серед яких найбільш впливовими є: «ДІМ», «РОБОТА», «ПОКУПКИ (РОЗВАГИ)» ТА «ІНШЕ»; 2) розміру ареалу комерційного впливу ЗХШО - відстані, яку споживачі психологічно погоджуються долати, щоб відвідати заклад ресторанного господарства; 3) фокусної відстані, що передбачає поділ ареалу комерційного впливу ЗХШО на сектори 5, 10, 15, 20 та 30-ти хвилинної доступності та показує внесок мешканців кожного із них у загальну структуру продажів закладу; 4) наявних та потенційних генераторів потоків споживачів ЗХШО, вимог до їх взаємної дислокації. Обираючи локацію ЗХШО, необхідно реально оцінювати ринкові можливості та загрози для його подальшого розвитку; враховувати галузеву специфіку при визначенні інтенсивності конкуренції та ємності ринку; аналізувати потоки відвідувачів; обгрунтовувати фокусну відстань та розмір ареалу комерційного впливу ЗХШО; враховувати генератори потоків споживачів ЗХШО та особливості їх взаємної дислокації.

Ключові слова: локація закладів харчування швидкого обслуговування, ареал комерційного впливу, генератори потоку відвідувачів, психологія поведінки споживачів

Introduction. The restaurant business is not only one of the most significant components of the hospitality sector operating in a tough competitive environment, but also one of the highly efficient capital investment areas.

Chains of quick-service restaurants (QSR) are characterized by the highest rates of restaurant business development in the world and domestic markets, a tough struggle for optimal positioning in the market and its most promising segments, finding new customers and retaining regulars.

The most critical factor in designing a new QSR is a proper assessment of the choice of location, which has a crucial impact on formation of sales volumes, successful business operations, efficiency of investments and the rate of return.

Analysis of the latest studies and publications showed ambivalence towards the quick-service market development. Public concern about the negative impact of fast-food on the health of the population, in particular on the younger generation is well founded as for some countries this problem is becoming a matter of national concern. Most economically developed countries have raised the issue of the need for local authorities to regulate QSR development (Lukar E. Thornton, 2016).

The latest studies by researchers including Athens, 2016; Bas, 2018; Folch, 2018; Oexle, 2015; Widaningrum, 2017 demonstrate the relevance of seeking a compromise model for fast-food planning and development in the service market. This model is expected to consider, on the one hand, business interests of the QSR owners, on the other, demands of the consumers of catering services and their right to meet these demands, as well as regulatory activities of the state authorities responsible for guaranteeing food safety at the local, regional and national levels.

The behavioural factor is the benchmark for selecting a quick-service location in a certain territory. In particular, Bernsdorf (2017) proved that there is a direct correlation between QSR location density in a certain territory and frequency of visits. The findings of the studies by Garza, 2016 and Barnes, 2017 confirm a positive effect of QSR accessibility and convenience factors for formation of demand for fastfood services, in particular for communication and for spending time with kids (Eckert, 2017).

Nowadays, location of quick-service restaurants is investigated by leading Ukrainian scientists, in geographic and economic aspects. The following leading Ukrainian geographers are investigating the location of quick-service restaurants: V.I. Doroshenko, O.O. Lubitseva, T. I. Shparaga and others. The following leading Ukrainian economists are investigating the location of quick-service restaurants: A.A. Mazaraki, N. I. Vedmid', T. I. Tkachenko, V.I. Kutsenko, V.F. Dotsenko and others.

At the same time the high level of uncertainty and risk associated with this business makes the need to study the specifics of choice of location of QSR location and to assess its long-term benefits more pressing every year.

The aim of this article is to study theoretical and applied fundamentals for justifying factors influencing the choice of QSR location and to develop recommendations on the ways of their application.

Materials and methods. Theoretical and practical aspects of developing a chain of McDonald's Corporation restaurants in different countries of the world and McDonald's Ukraine Ltd, as well as the results of studies conducted in McDonald's restaurants in Kyiv and Odessa, were used as the information framework

of the study.(The research results presented in this article contain internal corporate information of the regional European and Ukrainian offices of McDonald's Corporation).

Various research methods and techniques were used, in particular statistical surveys – for establishing

location is the analysis of the **routes** of potential visitors – their initial and final destination before/ after visiting a quick service restaurant, among which the most influential are: HOME, WORK, SHOPPING (ENTERTAINMENT) and OTHERS (Table 1).

As we can see, 85% of European, American and

Table 1. Traffic routes of potential visitors to quick-service restaurants depending on the initial and final points of customerdisposition, %

Initial point		Final point																		
		«HOME»			«WORK»			«SHOPPING (ENTERTAIN- MENT)»		«OTHERS»			Total							
	Italy	Poland	NSA	Ukraine*	Italy	Poland	NSA	Ukraine*	Italy	Poland	USA	Ukraine*	Italy	Poland	USA	Ukraine*	Italy	Poland	NSA	Ukraine*
«HOME»	18.0	20.0	27.7	12.9	1.0	2.0	4.7	11.7	2.0	3.0	5.5	15.9	9.0	12.0	8.1	8.4	30.0	37.0	46.0	48.9
«WORK»	10.0	13.0	5.0	7.0	10.0	7.0	10.1	5.5	1.0	1.0	0.4	2.0	3.0	1.0	1.0	1.3	24.0	22.0	16.5	15.8
«SHOPPING (ENTERTAINMENT)»	7.0	8.0	8.7	6.3	(<1)	<	0.4	0.7	2.0	1.0	2.1	5.4	3.0	~	1.6	0.9	12.0	9.0	12.8	13.3
«OTHERS»	20.0	20.0	11.0	10.9	1.0	<	0.8	1.2	1.0	<	1.7	5.0	12.0	6.0	11.2	4.9	34.0	26.0	24.7	22.0
Total	55.0	61.0	52.4	37.1	12.0	9.0	16.0	19.1	6.0	5.0	9.7	28.3	27.0	19.0	21.9	15.5	100	94.0	100	100

* The research results presented in this table contain internal corporate information of the regional European and Ukrainian offices of McDonald's Corporation. Ukrainian data are based on surveys of McDonald's restaurants' visitors in Kyiv and Odessa in 2017.

dynamics of certain indicators; analysis and synthesis – for structuring approaches to classification; comparisons, grouping and typing – for comparative analysis as well as the expert evaluation method. Methods of computer processing based on the MS Office application package were also used.

Results. *Traffic routes of potential visitors to quickservice restaurants.* Location of a restaurant is defined as the selected place of its situation within/outside the settlement with regards to traffic flows, routes of potential customers, activities of major competitors, etc. There are several types of locations for restaurants with varying effects on their success: a) in the center of a city/settlement; b) in the residential area of a city (dormitory suburbs); c) in close vicinity to a city; d) along a highway; e) near a traffic generator (magnet) – facilities attracting a large flow of visitors, for example, tourist attractions, large shopping centers, etc.; f) in an area of concentration of the bulk of customers (near the educational or business centers).

Decisions on the location of the operating system of service facilities including restaurants are strategic in nature. In Chase's writings (1998), the concepts and methods for the location of production and service facilities are carefully considered. Along with general influencing factors, the restaurant sector has its own specifics regarding the choice of location.

An important variable in choosing a QSR

Ukrainian customers visit a quick-service restaurant as an intermediate point on their route between HOME, WORK or SHOPPING. For more details, let us consider the psychology of behaviour of Ukrainian customers of quick-service restaurants (Fig. 1). Almost half of the visits to QSR are on the way from HOME, and 37.1% on the way to HOME. It is noteworthy that about a third of Ukrainian consumers visit quick-service restaurants before SHOPPING/ ENTERTAINMENT, as opposed to 5-10% consumers in the European countries and the USA. This means that Ukrainians consider a visit to a QSR as part of the entertainment (shopping), rather than as a separate event to meet their food needs.

However, there are consumers who visit QSR purposefully on the way from HOME (12.9% in Ukraine) or from WORK (5.5%), and then return to their starting points (Table 2). The frequency of such visits is almost twice as low as in other countries, indicating differences in the nutritional culture of the population, in particular outside home/work.

Different tendencies in consumer behaviour do not allow us to assess the potential of a QSR location only by analyzing the traffic of people visiting it, as this factor does not indicate the reason for appearance of potential clients in this place, neither does it consider those for whom the visit to the restaurant is the main event.



Fig. 1. Initial and final points oftraffic routes of McDonald's quick-service restaurants' potential visitors in Ukraine, %

The research results presented in this figure contain internal corporate information of the regional European and Ukrainian offices of McDonald's Corporation

The presented results demonstrate the importance of taking into account the factor of location of the projected QSR in the structure of residential development, ease/convenience and accessibility for potential clients coming from HOME. European experience shows that quick-service restaurants located next to the flows of people returning HOME function much better than those located next to morning flows of people. Therefore, the former option is viewed as a the size of its commercial area (Athens, 2016).

It is logical to assume that the size of the commercial area can be defined as the area around the QSR within the radius of the most distant potential visit. However, this approach to forecasting will result in a significant error of estimate. At the same time, a considerable narrowing of commercial area can exclude a significant proportion of potential visitors from the analysis. In particular, the geographic area

Country	initial - final points								
	«HOME»–QSR – «HOME»	«WORK»–QSR –«WORK»	Total						
Italy	18.0	10.0	28.0						
Poland	20.0	7.0	27.0						
USA	27.7	10.1	37.8						
Ukraine	12.9	5.5	18.4						

Table 2. Visits to QSR («HOME» and «WORK» as an initial and final point of routes), %

The research results presented in this table contain internal corporate information of the regional European and Ukrainian offices of McDonald's Cor-

priority when placing a restaurant near the roads.

Forecasting of consumer behaviour by the factor of QSR "commercial area".

When assessing location it is important to understand not only the routes of customers, but also the distance they are ready to cover in order to visit a QSR. For this purpose we use the notion of '**commercial area**' (trading area), which is traditionally viewed as a geographic territory around the facility within which all flows of clients move before/after the visit. The distance that consumers mentally agree to cover to visit a restaurant determines from which it is expected to generate up to 80% of the cash flow is used in Europe as a tradeoff between the size of the QSR's commercial area and the acceptable error of estimate in predicting the customers' behaviour.

Convenience of location is not measured by the distance, but by the time customers are ready to spend to get to the QSR. Convenience becomes even more critical if the time for visiting QSR is limited, especially for customers on the way from/to WORK. Table 3 shows the results of studying the size of the commercial area for customers from HOME and

Travel time be-		% v	visits		Accumulated %					
fore/after visiting QSR	Germany	Italy	Spain	Ukraine	Germany	Italy	Spain	Ukraine		
«HOME»										
0–5 min.	22.3	26.6	39.9	25.6	22.3	26.6	39.9	25.6		
6–10 min.	27.2	43.9	32.5	23.6	49.5	70.5	72.4	49.2		
11–15 min.	19.7	13.3	12.3	14.6	69.2	83.8	84.7	63.8		
16–20 min.	9.4	7.9	6.0	8.4	78.6	91.7	90.7	72.2		
21–30 min.	21.4	8.3	9.3	15.3	100	100	100	87.5		
>30 min.				12.5				100		
	«WORK»									
0–5 min.	47.7	48.0	54.0	16.9	47.7	48.0	54.0	16.9		
6–10 min.	19.7	30.6	24.4	24.0	67.4	78.6	78.4	40.9		
11–15 min.	9.7	9.2	8.2	15.2	77.1	87.8	86.6	56.1		
16–20 min.	5.6	5.6	4.3	27.8	82.7	93.4	90.9	83.9		
21–30 min.	17.3	6.6	9.1	16.1	100	100	100	100		

Table3. The size of commercial area for QSR for consumers from «HOME» and «WORK» points

The research results presented in this table contain internal corporate information of the regional European and Ukrainian offices of McDonald's Corporation.

WORK, depending on the time spent to get to a destination before /after the visit to a QSR.

Thus, for 80% of the respondents from the European countries, the size of the commercial area of QSR for HOME and WORK destinations is within 15-20 minutes accessibility. In Ukraine, for consumers of HOME destination it is a distance that can be covered in 25-30 minutes, WORK destination – in 20 minutes. This can be explained by the less developed network of QSR and their considerable distance from each other.

The size of the commercial area for customers in the SHOPPING/ENTERTAINMENT segment is more dependent on the characteristics of the shopping center than on the QSR per se (BAS, 2018). Small (local) shopping centers do not attract a large number of visitors from remote areas, so for such locations it is necessary to consider only the population within 8-10 minutes' walk (Guimaraes, 2018; Krizan, 2018; Mulicek, 2018). The specificity of generating flows of visitors to large shopping centers, hypermarkets or malls is calculated individually.

The closer the QSR is to the customers (their home, work, shopping area), the more frequently they visit it. This phenomenon is called 'focal distance', which involves the division of the QSR commercial area into sectors of 5, 10, 15, 20 and 30 minutes accessibility and shows the contribution of residents in each of these sectors to the total sales of the QSR (Fig. 2). The frequency and number of visits are greatest in the central area. These indicators decrease with increasing distance to the



Fig. 2. Focal distance of a McDonald's restaurant in London

The research results presented in this figure contain internal corporate information of the regional European offices of McDonald's Corporation. Prepared by authors using Bernsdorf, K. A., C. J. Lau, A. H. Andreasen, U. Toft, M. Lykke & C. Glumer, 2017

QSR location, even if the number of inhabitants in each subsequent sector grows. Busy highways and other communication lines make focal distance streamlined in their sector of commercial area. So, highways and communication lines increase frequency and number of visits in peripheral zones of focal distance near their location. But, the availability of a busy highway can only be considered as a flood Size and configuration of the commercial area are significantly affected by natural barriers (rivers, reservoirs) and artificial obstacles (roads, highways and railways) passing through its territory (Fig. 3). Obviously, a barrier means not only the lack of convenient bridges and walkways, but also a psychological component when people are not willing to cross a natural barrier.

 Table 4. Influence of focal distance on QSR sales results in Ukraine and Poland

Travel time before/		Poland	Ukraine		
after visiting QSR	Number of inhabitants	Sales per 1 inhabit- ant, Euro/person	Share of consumers in QSR sales, %	Share of consumers in QSR sales, %	
0–5 min.	48 517	16.86	46.0	25.5	
6–10 min.	106 688	6.87	41.0	21.2	
11–15 min.	106 943	1.0	6.0	18.8	
16–20 min.	238 450	0.49	7.0	12.3	
21–30 min.	-	-	-	12.5	
>30 min.	-	-	-	9.7	

The research results presented in this table contain internal corporate information of the regional European and Ukrainian offices of McDonald's Corporation.

generating factor when McDonald's is located on one. According to research results, only 1.0-1.5% of road-users traveling on city highways with speeds of 60-80 km per hour use McDrive services.

The concept of 'focal distance' provides a clear understanding of the relationship between the number and frequency of visits to a QSR and the time needed to get to destination before/after the visit (Table 4).

Thus, in Poland, the sector with the smallest number of inhabitants (48,517 people) generates up to 46.0% of restaurant sales at the highest average monthly bill per inhabitant within 5 minutes of access to the QSR. Therefore, when estimating the sales of a new QSR, it is necessary to consider in calculations not the total population, but the number of potential customers, taking into accounts the focal distance. In Ukraine 46.7% of QSR sales are generated by customers living within 10 minutes accessibility according to the investigation of V. I. Doroshenko and V. I. Kutsenko.

There are factors influencing the success of a QSR regardless of where it is located within the city. As shown above, customers of HOME destination on the way to/from QSR generate a significant number of visits; therefore, for accurate estimation of QSR sales it is critically important to have the results of psychological and social surveys of these customers. Each factor in combination with others has a variable effect on the QSR's performance (Table 5).

QSR commercial area potential.

Commercial area may also be limited by competitors operating within the commercial area regardless of their brands. Convenience is a key



Fig. 3. Commercial area of QSR and influence of engineered barrier (channels, highways) on its size (Rusanivka district, Kyiv city, Ukraine)

Prepared by authors using Google Maps images

Table 5. Influence of factors on QSR success at HOME and WORK destinations

	Influencing factors	Level of influence on QSR success
		Customers of HOME destination
1.	Time spent on the way to/fr	om QSR:
1.1.	On transport	<i>Very high with</i> 5-, 10-, 15- and 20 minutes of accessibility. Level of influence decreases from center of the city to suburbs. The least influential factor on the highway
1.2.	Walking accessibility	Low.
		As a rule, 5-10 minutes regarding time for transport to/from QSR (Bernsdorf, 2017)
2.	Social-demographic portrai	it of potential customers:
2.1.	Family	Very high. Potential segments of customers
2.2.	Age distribution	High (Garza, 2016)
2.3.	Income level	The higher is the income level, the lower is the demand for QSR services (Garza, 2016; Eckert, 2017)
2.4.	Employment	Medium
2.5.	Education level	Low
2.6.	Nationality/ethnicity	Variable. Dependence on traditions in organization of catering outside home
3.	Competition:	
3.1.	QSR of the same brand	<i>Very high.</i> Influences size and configuration of commercial area
3.2.	QSR of international brand	Very high. Influences size and configuration of commercial area (Bas, 2018)
3.3.	Other competitors	<i>High, medium.</i> Depends on strength and activities of the competitors
		Customers of WORK destination
	1. The number of compa	anies, offices and their employees within the QSR commercial area:
1.1.	Transport accessibility	High/medium Necessary to consider mobility of employees
1.2.	Walking accessibility	High/medium. Employees have time limits for visiting QSR during lunch break so the commercial area may be reduced
	2. Specifics of catering of	organization at work:
2.1.	Own QSR available	Very high QSR may attract customers by specialties and unique offers
2.2.	Competitors available	<i>High/medium.</i> Depends on strength and activities of the competitors, offers of delivery menus and business lunches
2.3.	While/blue collar ratio	Low/medium. Blue collars usually bring lunch from home

Prepared by authors using Bernsdorf, 2017; Garza, 2016; Eckert, 2017; Bas, 2018

indicator for visiting a QSR, so with the appearance of a new more convenient QSR, customers will visit it. As for the McDonald's chain, the biggest competitor for a new restaurant is the one already operating in the overlapping trading zones. Intersection of the trading zones of existing and new QSR is called the convenience line passing exactly in the middle of the area, as shown in Fig. 4. This intersection of the trading zones of existing and new QSR may be perfectly explained by the Voronoy polygon also. Customers visiting a commercial area with the sole purpose of visiting a QSR will choose the nearest. Other reasons for visiting a commercial area form its potential for generating QSR sales (Table 6). Generators include residential areas, offices, large trading operators, subway stations, public transport stops etc.

The potential of a QSR's commercial area is significantly dependent on the situation of the magnets - generators of flow of potential customers, attracting a large number of people. There may be many magnets



Fig. 4. Convenience line for visitors of QSR 1 and QSR 2 with crossed trading zones *Prepared by authors*

in the QSR area (small shops, cinemas, tourist facilities, etc.), but it is necessary to concentrate on the largest one (Fig. 5). These magnets shown in Fig. 5 are located near busy highways because they attract potential visitors. The number of visitors depends on

the level of highways capacity. So, the greater the capacity, the greater the size of the magnets.

Key factors of successful QSR location within the flow-generating magnets. The number of a QSR's customers significantly depends on the convenience

Table (5. /	Assessment	of p	otential	and	characteristics	of OS	R commercial a	rea
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Potential assessment	Characteristics	Features of commercial area – customer flow (sales) generators
Excellent	All sales generators are developed	 shopping center is successfully operating or is about to be opened (in 1-2 years);
		 very high population density (to 50% of city residents) most of them working downtown;
		- many residential buildings with developed infrastructure;
		- high level of population motorization
Very good	Two sales generators devel-	- shopping center successfully operating at least 1 year available;
	oped in any combinations. For Ukraine the best combina-	 high population density (to 25% of the total), most of them working downtown;
	tion is HOME+SHOPPING	- many residential buildings with developed infrastructure;
		- high level of population motorization
Good	Steady market of QSR sales with certain sales generators is developed	- sales market is enough to form stable demand for QSR products
Satisfactory	Formed market is in stagnation or declining	 main flow generator is a shopping center which used to be popular 10 years ago, but which is now unfashionable
Undesirable	Market is weak, any flow generators are absent	- neighbourhood with low income level, industrial area

Prepared by authors.





Fig. 5. Location of flow-generating magnets

Fig. 6. Location of McDonald's restaurant within flow-generating magnets

The research results presented in these figures contain internal corporate information of the regional European offices of McDonald's Corporation.

of its location within the flow-generating magnets. A powerful magnet has a much larger commercial area than a QSR, so their mutual location is decisive for visits to the latter (Fig. 6).

Table 7 presents a list of factors and their influence the success of a QSR located near a magnet.

Three characteristics are used for assessment of

assessment of the location potential.

Feasibility of the choice of a QSR's location is strengthened by the use of integrated methodological tools for collection and expert evaluation of data, both general (social-economic specifics of the territory/region development) and specific (condition and characteristics of locations, regularities and tenden-

 Table 7. Influence of factors on success of QSR located near a magnet

Influencing factors	Level of influence on QSR success	Notes				
1. Powerful magnet whose commercial area is larger than that of the QSR						
Number of magnet visitors	High	QSR visibility and accessibility are crucially important				
Type of magnet:						
Shopping center (mall, SEC)	Very high	In priority when choosing QSR location				
Shopping center (mall, SEC) with food-court	Very high	Considerably reduces the number of potential customers for new QSR				
Recreation facility	High	Necessary to consider the seasonal factor				
Tourist center	High	Seasonal factors are not influential, visibility is critical				
Educational institution (school, college, university)	High	Students under 14 years dot not influence considerably. Walk- ing accessibility is important (at most 10 minutes) (Thornton, 2016)				
Others (cinemas, health facili- ties)	Variable	Depends on magnet power				
	2. Weak local magne	et with less commercial area				
8-10 minutes of accessibility to QSR						
Number of magnet visitors	High	Not always known				
Number of magnet employees	Variable	Depends on the size and significance of the magnet				

Prepared by authors using Thornton, 2016

a QSR's location relative to a magnet: QSR convenience, visibility and accessibility from the routes leading to the magnet (Table 8). cies in behaviour of potential customers, competition) as well as by considering factors influencing performance of a new QSR (Fig. 8).

Accessibility and visibility of a QSR in relation to magnets are particularly critical when opening a new quick-service. From this standpoint, several types **Conclusions**. Below are the parameters recommended for the choice of location of QSR which are able to generate traffic of potential customers:

Table 8. Key factors of successful QSR location relative to magnets

Characteristics of QSR location	Recommended parameters of QSR location
1. Convenience	'Comfort zone' is the commercial area at a distance of 20-30 minutes accessibility. Magnet located within the QSR commercial area is of priority
2. Accessibility	Easy maneuvering on the way to/from QSR and access road to it including easy accessibility by car
3. Visibility	Building, poster, signs indicating the road and direction to QSR are conspicuous. Customers can easily spot the QSR

Prepared by authors

of QSR locations are distinguished by the level of visibility and accessibility of **magnets** and **transport arteries** (Fig. 7). It is necessary to consider all flows of magnet visitors moving near the QSR for proper

- 1. Potential QSR location should be between HOME, WORK or SHOPPING destinations;
- 2. It is more promising to choose a QSR location near flows of consumers going HOME than



Fig. 7.Types of QSR locations by the level of their visibility and accessibility from magnets and transport arteries *Prepared by authors*

The general factors	- - - - - - - - -	political stability (national, regional); demographic and economic factors of development of the main sales markets; size and quality of the workforce; favorable business environment and tax policy for business; source of inputs and raw materials, logistics costs; protection of environment, sate management; availability of the developed public utilities and technical infrastructure; cost of a land plot and construction; living conditions (climate, level of education, medicine, culture, crime etc.).
\bigcirc		
The specific factors	1. - - - 2. - - - - - -	Requirements to territorial location of the quick-service restaurant within the city/district: proximity to residential areas and other objects necessary for potential employees and consumers; availability, capacity and significance of transport routes, vehicle speed; volume of transportation of potential consumers, convenient access roads; composition and territorial dispersion of a cluster of product form and territorial competitors; availability of high-professional competitive supply network; availability and proximity to traffic generators (magnets). Requirements to a building site: size, configuration, relief and other technical features; its visibility; zonal restrictions (norms for development of the territory, consistency with neighboring objects, possibility of organizing a parking lot); appropriate format of quick-service restaurant ; possibility of reconstructing the leased premises.

Fig. 8. Factors influencing QSR location

Source: data based on works by Chase, 1998; Thomas, 2014; Zhang. 2018 further elaborated by the authors

in the vicinity of morning flows;

- QSR location: distance for HOME destination should be covered in at most 20 minutes and distance from/to WORK – for 10 minutes;
- Assessment of QSR commercial area potential should be 'excellent', 'very good' or 'good';
- 5. No artificial or natural barriers;
- 6. Proximity to powerful magnet (traffic generator) with commercial area greater than that of QSR; no other QSRs belonging to the magnet;
- 7. Convenience, accessibility and visibility of magnets in relation to QSR.

The presented factors are average and always vary between countries, cities, and different locations based on geographical, cultural and demographic characteristics. When choosing a QRS location only one of the listed factors may prove dominating. However, even a well-chosen location cannot guarantee the successful business, as high quality of services and food, and optimal price-quality ratio may become a decisive factor in shaping behavioural intentions of consumers (Namin, 2017).

When choosing a QSR location it is necessary to perform reliable assessment of market opportunities and threats to the restaurant's further development, to take into account sector specifics in determining the competition intensity and market capacity, to analyze flows of visitors; to justify the focal distance and QSR commercial area, to consider generators of QSR customers flows and features of their mutual location.

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