

Harutyunyan, Artur; Janda, Karel

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Multinationals and Sustainable Attitude to Nutrition and Eating Habits

*Artur Harutyunyan and Karel Janda**

Abstract

In this paper we deal with an issue of healthy environmentally responsible attitude to nutrition. We focus on the question how large multinational companies influence this aspects of sustainable development. We provide literature overview and we outline the main assumptions to be used in the empirical research on this issue. We first describe the role of multinational companies on the food market and the current global trends on this market. Then we focus on the fast food subset of the food market and on the issues of overweight and obesity.

Key Words: Multinational companies, obesity, nutrition.

JEL codes: D12, I14, Q18

* Artur Harutyunyan; Institute of Economic Studies, Faculty of Social Sciences, Charles University, Opletalova 26,11000 Praha 1, Email: 43206553@fsv.cuni.cz

Karel Janda; Department of Banking and Insurance, Faculty of Finance and Accounting, Prague University of Economics and Business, W. Churchilla 4, 13067 Praha 3, Czech Republic and Institute of Economic Studies, Faculty of Social Sciences, Charles University, Opletalova 26,11000 Praha 1, Email: Karel-Janda@seznam.cz

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Introduction

This paper is focused on the question how large multinational companies influence one of the aspects of sustainable development. It is a topic of healthy environmentally responsible attitude to nutrition. This topic has become very much discussed recently, since globalization plays a huge role in world development, and international companies penetrate into different countries, changing the situation, the social sphere and the economy of these countries. Also, large manufacturers strongly affect human health in terms of ecology, job creation, investment in development, and so on.

This paper will analyze the effect of large producers on people's health, on their way of life. The relationship between major food manufacturers and, in particular, fast food, and body mass index, which is one of the most important indicators of obesity, will be analyzed. We will provide an extensive literature review complemented by statistical overview of the main trends on the global food market and we will provide the basic information needed for the analysis of the non-sustainable attitude to nutrition leading to large incidence of overweight and obesity among particular segments of the global population.

1 The Role of Multinational Corporations

1.1 Multinational Corporations: Key Definitions

Before proceeding directly to the analysis of the food market within the framework of this research, it is worth first providing an overview of multinational corporations, starting with the definition of the term.

According to Gershon (2012), a multinational corporation can be defined as “*a nationally based company with overseas operations in two or more countries.*” Wankel (2007, p. 240) states that a multinational corporation is “*a large firm headquartered in one country but with subsidiaries in a number of other countries.*” The author points out that a multinational corporation’s subsidiaries make its integral part. The parent company manages the subsidiaries’ activities, and the latter are dependent on it in both organizational and strategic terms. Furthermore, Wankel believes that the degree of a company’s integration in multinational operations is preconditioned directly by the number of countries in which it has subsidiaries. A similar definition is also provided by Certo and Certo (2009, p. 114): “*a multinational corporation is an organization that is involved in doing business at the international level. It carries out its activities on an international scale that disregards national boundaries, and it is guided by a common strategy.*”

Thus, as the information provided above suggests. despite slight differences, all the definitions suggest that a multinational corporation is basically an entity performing its economic activities beyond the borders of one country and which applies a common strategy within the course of its international business expansion.

Wankel (2007, p. 240) explains that multinational corporations are engaged in a wide range of activities on the international scale, including production, sales, marketing, research and development, etc. By integrating their different directions or stages of activities across different states, multinational corporations are able to achieve the required economies of scale, which should be considered as one of their key strategic advantages. The strategy of a multinational corporation’s activities is elaborated on the level of the parent company. Regional subsidiaries follow the general strategic guidelines formulated by the headquarters and at the same time adapt their tactical activities to particular specifics of the geographic segment on which they operate and the customers residing in this particular region. The

management of the parent corporation and its subsidiaries cooperates closely in order to attain the desired economic results. Companies often combine the use of foreign and native managers in subsidiaries for the purpose of intensify the exchange of experiences and maximize performance across all directions.

Gershon (2012, p. 3) suggests that the activities of multinational corporations started back in the early 19th century and gained their greatest development after the end of the Cold War. This was favored by the shift from nationally oriented economies to global cooperation. At the same time, an important reason was the large amounts of capital accumulated by multinational corporations and the pool of technological knowledge they were ready to deploy for the sake of reaching their international expansion. Cohen (2007, p. 43) disagrees on this point and notes that most economists believe multinational corporations to have originated in the 17th century, when the British East India Company and the Dutch East India Company were established. These companies were characterized by the fact that they were founded for specific purposes in overseas countries without having achieved commercial success in the metropolitan state. Nevertheless, as such companies indeed performed operations abroad and had their subsidiaries, it can be deemed justified to consider these entities as the first multinational corporations (MNCs).

Today, multinational corporations are powerful global actors. As Boeger, Murray, and Villiers (2008, p .45) note, they hold significant economic resources, and their capital often exceeds the budgets of smaller states. Thanks to the economies of scale, MNCs often hold a monopolist position in the market in which they operate or establish oligopolies together with other major commercial actors. As the domination of multinational corporations is based largely on technological leadership, they also accumulate vast technological resources. Moreover, multinational corporations have become a powerful political actor on both the domestic political arena of the countries in which they operate and in terms of global geopolitics. MNCs can lobby the decisions of governments, participate in international negotiations and shape the development of relations between states and international organizations in general.

Diaconu (2012, pp. 142-145) explains that, as multinational corporations perform a wide range of activities and need to develop a unified strategy to be followed by all their subsidiaries, such companies have a range of international strategies to be chosen between. Thus, the first option is the global strategy. In this case, the multinational corporation focuses

on expanding worldwide through the expansion of the same strategy. Its products are sold in different countries with minor adaptations, and the global brand plays an essential role in customers' preferences. The second option is the so-called multidomestic strategy. This strategy is applied in cases where there are significant differences between different national markets in which a company operates. As the economies of scale become less notable, the multidomestic approach can be applied to achieve greater international differentiation, with strategies adapted to particular geographic regions. Another option available is the translational strategy. As Dicaonu (2012, p. 145) argues, "*the transnational corporation does not centralize or decentralize the authority, but it settles responsibilities, for each organizational task, to that unit of the organization that could be able to reach out the purpose of efficiency and flexibility*".

Analyzing multinational corporations, it should be borne in mind that such companies are most often incorporated in either developed or dynamically developing states. At the same time, such corporations direct their investment to developing countries for the purpose of locating their production facilities in locations with cheaper workforce and smaller taxes and for achieving domination on these segments. Therefore, it is worth analyzing in more detail the benefits and disadvantages of MNCs for developed and developing states.

As Kordos and Vojtovic (2016, pp. 153-156) explain, for countries of incorporation, the main advantage associated with MNCs is that they act as a powerful tool of economic, political, and cultural expansion. Thus, for instance, American corporations such as GMC, Ford, McDonald's, Wal-Mart, and so on are not only economic actors, but those brands which shape the United States' global presence. On the other hand, their economic contribution should not be underestimated either: such companies create additional value and pay large amounts of taxes. Their innovativeness and technological leadership contribute to developed states' further development and growth. By expanding abroad through mergers and acquisitions, MNCs open new markets for other companies from developed states, thus making the market wider. In the long run, the activities of multinational corporations are one of the most important factors ensuring globalization.

Among the main negative factors associated with MNCs for countries of incorporation, Kordos and Vojtovic (2016, pp. 153-156) and Ferdausy and Rahman (2009, pp. 116-118) note that such companies can monopolize the market and affect free competition: as a result, they can set higher prices for customers and constrain the development of the whole

economy in general. Also, even though multinational corporations seek placing their production facilities in less developed states, they still represent a significant environmental threat.

For receiving developing states, Ferdausy and Rahman (2009, pp. 116-118) state that multinational corporations are important as they create a great number of jobs: investment from such companies contributes to smaller unemployment and to higher standards of living. At the same time, MNCs invest in local infrastructure in corporate social responsibility (CSR) activities. For performing their activities, they transfer technologies: as the level of innovative activities in developing states is inherently smaller, this transfer of technologies contributes to their more dynamic growth. Another important benefit is that such companies pay significant taxes to the local budgets, which makes an important contribution to economic growth in general.

As for the disadvantages for developing states, Linarelli, Salomon, and Sornarajah (2018, p. 97) note that the risks of monopolization are significantly higher compared to developed countries. Thus, MNCs can easily drive the less powerful local competitors out of the market, becoming the sole dominator. Another important shortcoming is that such companies do not seek equaling the work conditions of the local to the ones available in developed states: most often, they place their subsidiaries in developing states for sparing on workforce, and the work standards applied are inferior. As already noted earlier in this section, multinational corporations can use their political power and economic domination for manipulating the decisions of local governments. The environmental threat associated with MNCs' activities is considerably higher. As the environmental standards are lower in developing countries, the activities of multinational corporations can be a major ecological harm.

Based on the overview provided above, it can be stated that the activities of multinational corporations have both their inherent advantages and risks. Nevertheless, despite the existing threats, it can be confirmed unequivocally that the economic activities of such companies represent one of the most important driving factors contributing to the development and growth of international business in general. This trend has been persisting for several decades and, given the current conditions, it will be likely to persist in the future. The effort of individual states' governments and the international community should be directed at developing common rules of play to be followed by all multinational corporations, including those related to fair play and free market, commitment to sustainable growth, and guarantees

of high social standards. This would contribute to the maximization of positive effects and at the same time to the minimization of associated risks.

Given the findings outlined above, it is now possible to focus on the investigation of the food market and its particular specifics.

1.2 Food Market and Its Specifics

The specifics of the food market on both the domestic and the international scales are associated with the main product sold there. This product includes all kinds of foods and beverages.

The food industry in general embraces a wide range of particular fields, namely agriculture, manufacturing, food processing, marketing, and so on. Agriculture includes all processes related to the cultivation of plants and cattle, which products are thereafter used in processing for delivering end products to target customers. Adams et al. (1998, pp. 19-20) note that a specific feature of agriculture production is the fact that it depends largely on weather conditions and geography, i.e. on factors which are beyond the control of manufacturers. Due to differences in climate and weather, soils, area available for pastures, and so on, different countries tend to focus on the development of different segments of agriculture. At the same time, the focus on agriculture is more inherent of developing countries, while developed states focus on the tertiary sector. Thus, food processing is dependent directly on the successful development of agriculture. Within the stage of food processing, raw materials delivered by agricultural manufacturers are processed to a stage where they can be delivered to the end customer. Due to the specifics of agricultural production noted above, large food corporations most often have to cooperate with a great number of agricultural manufacturers all over the world, ranging from large companies to small private farms and households. This allows procuring sufficient raw foods to be processed on the one hand and guarantees effective diversification on the other hand. The opportunity to get supplies from other sources in an uninterrupted manner, regardless of weather conditions and other external factors, is one of the main ways to achieve effective performance on the food market.

A particularity of the food market is the fact that food products are perishable. Although this is more inherent of raw materials, even in case of processed products, their lifespan is significantly smaller compared to other industries. Hsiao (2009, p. 16) suggests that this

entails practical consequences for food manufacturers and consumers. Thus, companies need to organize their international networks with effective logistics, so as to minimize time expenditures and ensure proper integration of all stages of production.

Another important specific feature of the food market pointed out by Aramouni and Deschenes (p. 4) is the large amount of legislative control applied on the part of the state. This is due to the fact that food products are consumed by customers directly and affect not only their health, but also their longevity and the overall quality of life. Governments tend to impose requirements as regards the contents of particular food products, and on the performance of marketing procedures as directed to particular categories of customers, for instance, to children. Rigorous requirements apply to the production processes, including the sanitary standards of the workplace and storing of food. Specifics also exist as regards the packaging of food products.

Particularities also exist on other stages of the cycle. Thus, Aramouni and Deschenes (pp. 1-3) state that the food market is developing dynamically. The high competition on it and the availability of a wide range of substitute products make companies constantly develop, change and modernize the products they sell. According to the authors, developing and introducing a new food product to the market takes from 6 months to 5 years. The process of market screening is generally similar to other industries. However, the food market is more sensitive in terms of local preferences. Therefore, large corporations require thorough studies to learn in detail about the specific preferences of their customers on different geographic segments and to adapt their product ranges specifically to the wants and needs of such customers.

Kaynak (2014, pp. 3-4) states that food marketing should be performed not only in compliance with the legal requirements in force, but also with due account for the aforesaid region-specific customer preferences. The sales of products depend on the logistics systems deployed, as the products are perishable. Most often, large international food manufacturers cooperate with wholesale and retail resellers such as large supermarket networks and other similar distributors. The Internet channel is used widely nowadays to ensure proper sales as well.

Earle and Anderson (2001, pp. 50-51) states that the food market is characterized by integrity. A change in any stage of the abovementioned processes leads to general changes on the market: *“In particular, innovations in the primary producing industries produce new*

ingredients, which then advance to new consumer products.” At the same time, the authors point out that, compared to other markets such as electronics, the food market is more mature and stable. It is hard to invent new products, and consumers are more cautious in their change of products to be used. The biological processes take much time, as plants or cattle have to be cultivated. Despite this, the implementation of innovations in the sector is important for manufacturers to raise the quality of their production and to achieve higher profit margins in the long run.

Earle and Anderson (2001, p. 51) also note another specific feature: marginal returns on the food market are smaller compared to other sectors such as the sales of pharmaceutical products or information services. Also, it is worth mentioning the environmental impact of agricultural production and food processing. Given the current trends for sustainable development, companies are required to invest funds to comply with ecological standards and minimize the harm brought to the environment.

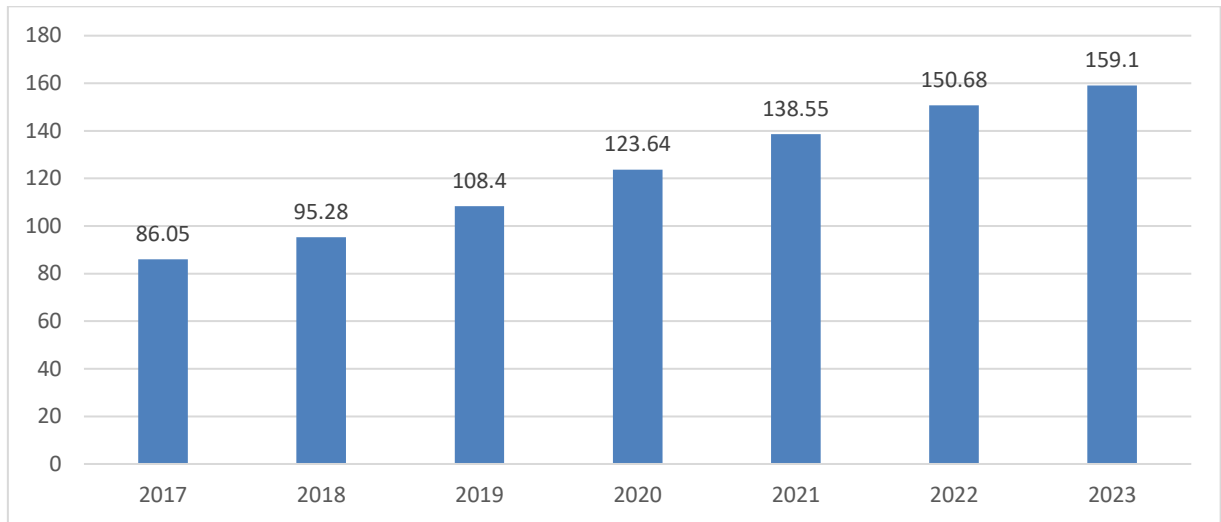
Taking into consideration these specifics of the food market, it is now worth providing a statistical overview of the sector on the global scale in the next section.

1.2.1 Statistical Overview of the Global Food Market

Given the specifics of the global food market outlined in the previous section of this paper, it can be confirmed that the market’s products are indispensable for the living of people, and therefore all of the world’s population consumes food manufacturers’ products to some extent. However, to understand better the current situation on the market, it is worth focusing more on its recent dynamics.

As can be seen from Figure 1 below, the food market has been on a steady rise in recent years, and, as experts’ estimates suggest, this growth should be expected to persist in years to come. Thus, in 2017, the aggregate global food market revenues amounted to USD 86.05 billion. In 2018, this figure grew by 10.7 % and achieved a total of USD 95.28 billion. Further growth by 13.8 % is expected to be achieved in 2019. By the year 2023, revenues on the global food market are expected to increase by as much as 70 % compared to 2018. These tendencies testify the high potential of the market. It should also be noted that the constant growth of the global food market is associated directly with the steady growth of global population.

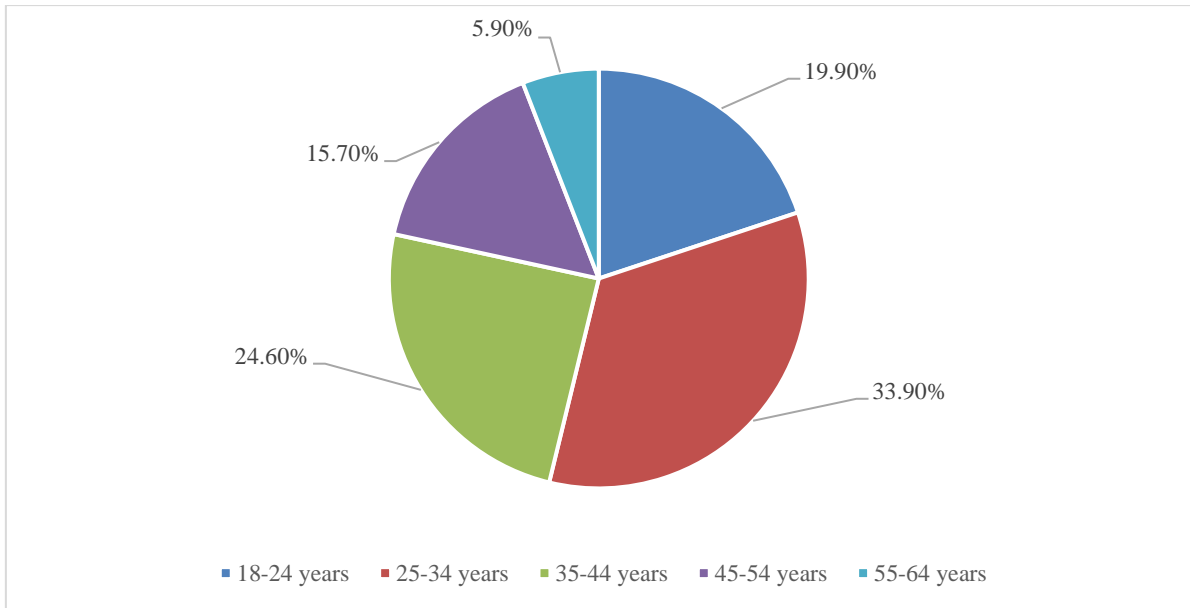
Figure 1: Revenues on the global food market in 2017-2018 and as projected to 2023, in USD billion



Source: Statista.com, 2019.

As Figure 2 shows, the structure of the global food market consumers by age is dominated by persons aged 25 to 34 years old, whose share exceeds 1/3. The second most important group is persons aged 35 to 44 years old with 24.6 %. Other groups' shares are smaller. This structure can be explained by two main reasons. On the one hand, the purchasing power of people aged 25 to 44 is higher compared to both older and younger persons. On the other hand, such people are more prone to exploring something new. Moreover, this structure is also affected by the global population's general age structure.

Figure 2: Consumers on the global food market by age, as of 2017

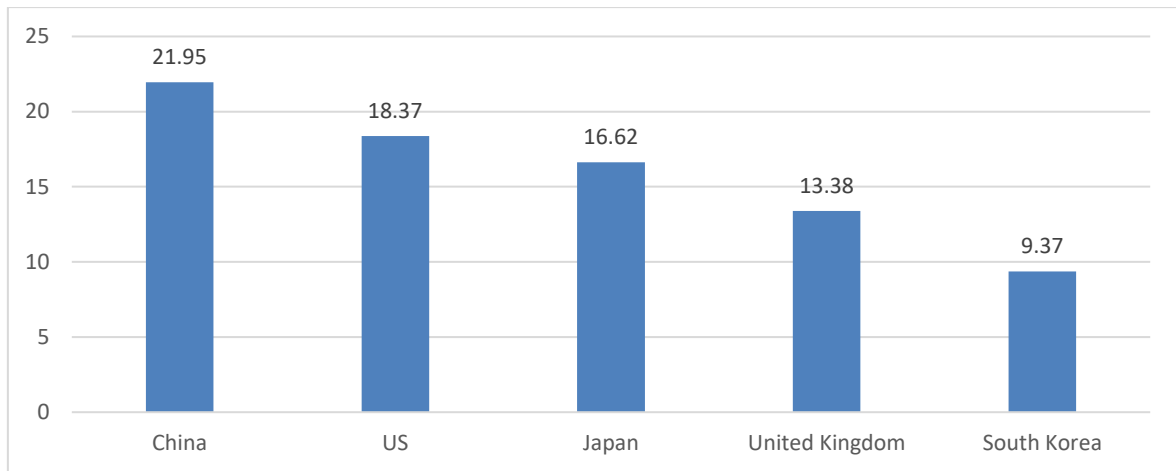


Source: Statista.com 2019a.

As Figure 3 highlights, the world's absolute leader in terms of food market revenues is China, with a figure of USD 21.95 billion in 2019, followed by the United States (18,37), Japan (16,62), the United Kingdom (13,38), and South Korea (9,37). Chinese domination on the global food market can be explained by the size of China's population and the need of local food manufacturers to fulfill all of the population's needs in foods and beverages. At the same time, China is also a powerful exporter of food products on another global scale.

The United States also contributes very strongly to the food market revenue. Primarily, the United States have to fulfil the demand of the local inhabitants, which are 328,2 million of people. On the other hand, there are many local manufacturers that export food and beverages to other countries in the World.

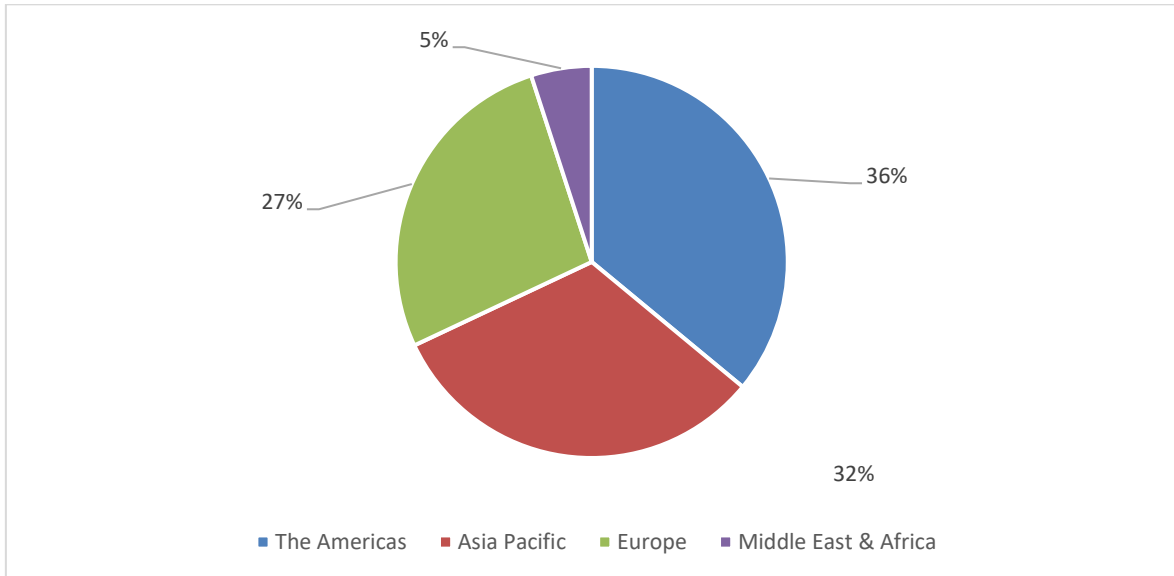
Figure 3: Top 5 countries by aggregate food market revenues, in USD billion



Source: own processing, Statista.com 2019a.

Exploring the eating out segment of the global food market, the tendencies noted about as regards the geographic distribution of revenues can be confirmed. Thus, as Figure 4 below illustrates, the Americas and Asia Pacific dominate the sector, with their respective shares of 36 % and 32 %. Europe's share is smaller and amounts to 27 %, while the Middle East and Africa account for only 5 %, which can be explained primarily by the lower purchasing power of the African population.

Figure 4: Regional distribution of revenues on the eating out segment of the global food market



Source: Cushman & Wakefield 2017, p. 15.

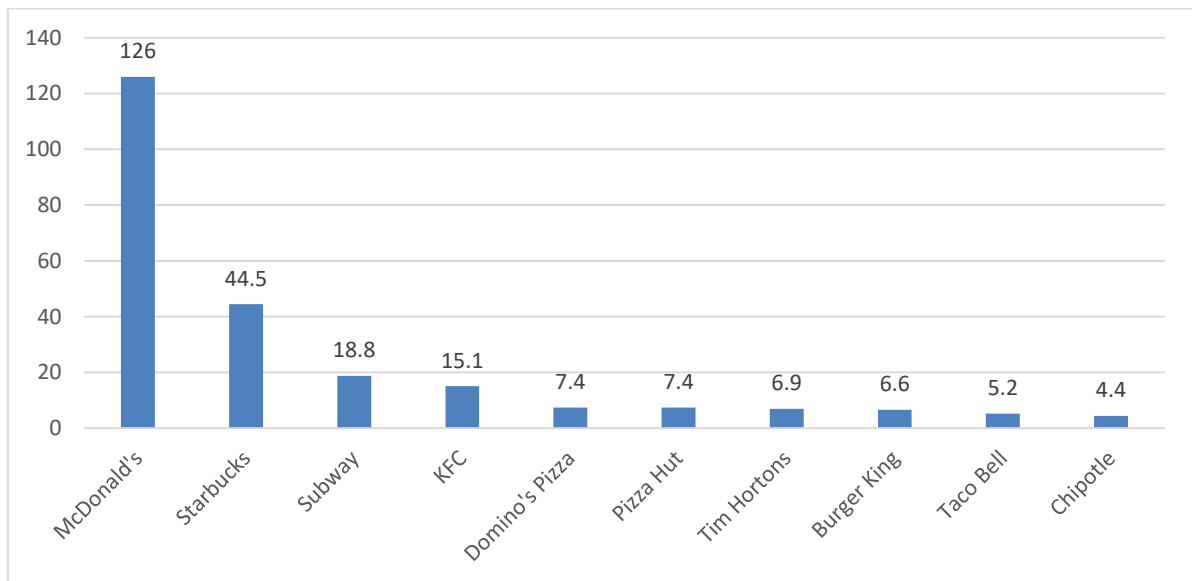
According to Cushman & Wakefield (2017, p.14), a prominent tendency on the eating out segment of the global food market is that the regional markets of the United States and Europe are mature and demonstrate more moderate growth. Thus, the average growth in the period from 2006 to 2016 amounted to 9.8 % in Asia Pacific, 7.4 % in the Middle East & Africa, 6.1 % in the Americas, and 4.2 % in Europe. The projected growth figures for 2017-2026 amount to 7.5 % for Asia Pacific, 7.4 % for the Middle East & Africa, 5.5 % for the Americas, and 4.9% for Europe.

Similar trends can also be observed on the market of raw materials, namely in terms of agricultural production. Thus, as noted by the OECD and FAO (2018), “Global agricultural and fish production is projected to grow by around 20 % over the coming decade, but with considerable variation across regions. Strong growth is expected in Sub-Saharan Africa, South and East Asia, as well as the Middle East and North Africa. By contrast, production growth in the developed world is expected to be much lower, especially in Western Europe.”

Analyzing the fast food market segment, it can be stated that international fast food networks incorporated in the United States dominate around the globe. As can be seen from Figure 5 below, 9 out of the world’s top 10 fast food brands are American (except for Tim Hortons

incorporated in Canada). Thus, McDonald’s is the world’s absolute leader, with an estimated brand value of USD 126 billion. It is followed by Starbucks (USD 44.5 billion) and Subway (18.8 billion). These figures testify that American brands have the greatest global coverage. At the same time, such expansion allows them not only succeeding in financial terms but also spreading the American culture worldwide.

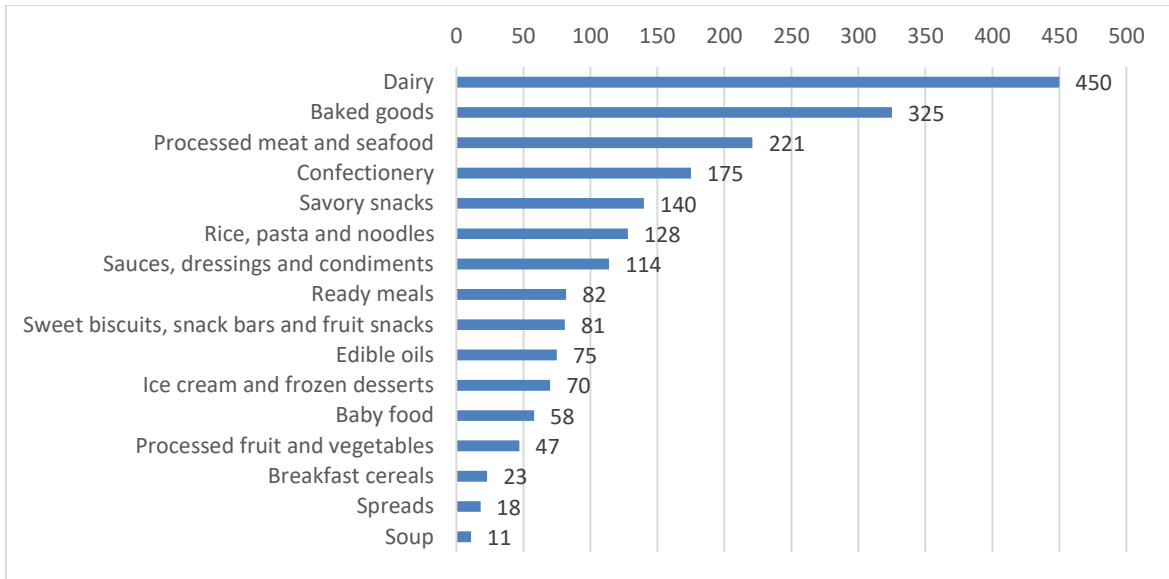
Figure 5: Brand value of the 10 most valuable fast food brands worldwide in 2018, in USD billion



Source: Statista.com, 2019b.

Considering the segment of packaged foods, as can be seen from the figure illustrated above, the largest retail value is generated by dairy products (USD 450 billion in 2016), baked foods (USD 325 billion), processed meat and seafood (USD 221 billion), confectionery (USD 175 billion), savory snacks (USD 140 billion), and a range of other products. From this information, it can be stated that customers around the globe have an extensive access to different kinds of packaged products, which means that they are offered significant opportunities of choice. The popularity of packaged products themselves can be explained by their convenience for sale and for consumption.

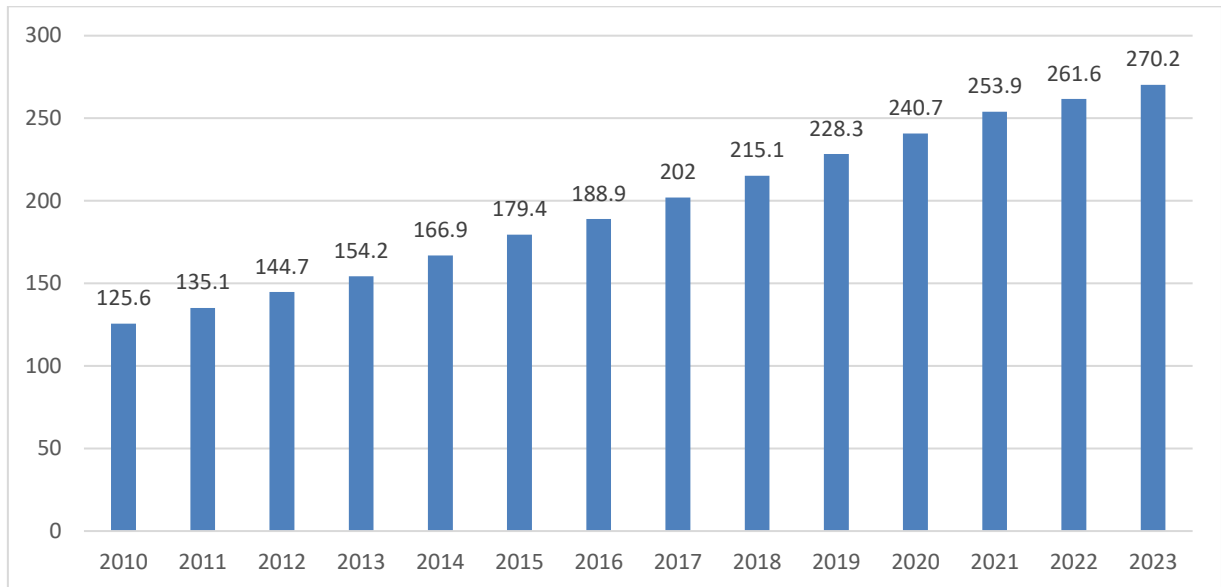
Figure 6: Packaged food retail value in 2016, by category, in USD billion



Source: Statista.com, 2019c.

As Figure 7 below shows, the market of ready food products has been steadily growing in recent years as well. Thus, the global revenues of the segment amounted to USD 125.6 million in 2010. By 2018, this indicator grew to USD 215.1 million, i.e. by more than 71 %. This growth is expected to continue further, achieving USD 270.2 millions of total revenues by 2023 (+25.6 % compared to 2018). These dynamics can be explained by the fact that ready products take less time from people to cook. Given the growing involvement of the population all over the world in professional activities, this can be seen as an important advantage. Possible concerns include negative health effects, and it can be expected that manufacturers' effort in the future will be directed to make such products healthier.

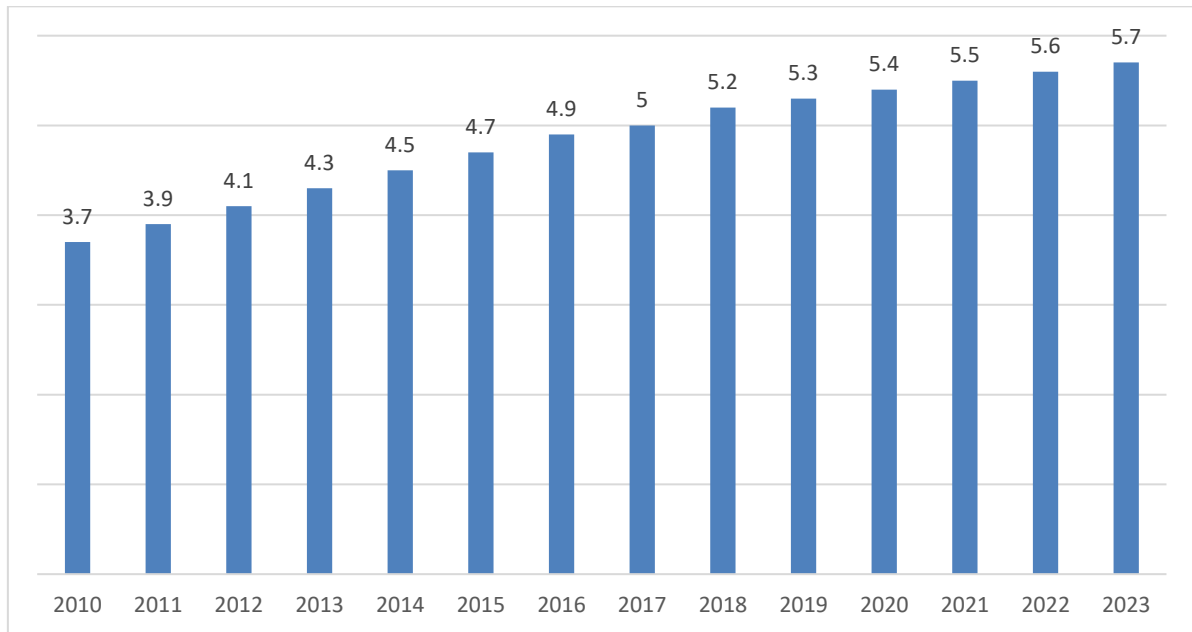
Figure 7: Global revenue of the ready foods segment in 2010-2018 and as projected to 2023, in USD million



Source: Statista.com 2019d.

To confirm the findings above, it should be noted that the ready meals segment is growing not only thanks to absolute sales. Thus, as can be seen from the chart provided below, the average absolute consumption of ready foods by people all over the world tends to keep growing every year. Thus, in 2010 an average person consumed 3.7 kilograms of ready meals every year. In 2018, this figure already amounted to 5.2 kilograms. By 2023, the projected value is 5.7 kilograms. This testifies that the segment is potentially beneficial and thus attractive for large food manufacturers. Moreover, subsequent customization of the market and the application of innovations can raise the manufacturers' profit margins and at the same time promote customers' greater purchases.

Figure 8: Average volume of ready foods consumed per capita in 2010-2018 and as projected to 2023, in kg



Source: Statista.com 2019d.

Given the findings outlined above, it can be stated that the global food market is developing actively. The specifics of food products and the constantly growing need for foods and beverage on the part of customers all over the world precondition the market's further expected growth in the near future. In order to understand better, the opportunities which the market has and the potential effects, the current global trends will be investigated in the next section of this paper.

1.2.2 Current Global Trends on the Food Market

Investigating the current global trends on the food market, it is worth providing an overview of the tendencies dominating the market on both the consumer's and the manufacturer's sides. This should allow making conclusions on the market's future directions of growth.

One of the common trends worth noting in the consideration of the consumer side of the global food market is customers' proneness to follow healthy lifestyles. Coutts and Fielder (2009, pp. xiii-xiv) argue that the recent growth of the 'free from' and functional products on the food market is due to the fact that customers belonging to different age groups wish

to follow the common trends. Thus, large multinational corporations modify their product ranges, offering more products containing no artificial ingredients. Another common trend is the one for the growing consumption of organic foods. For instance, companies offering their cattle or poultry free pasture and natural food can enjoy greater popularity among target customers nowadays. The growing numbers of vegetarians, vegans and other similar groups of customers make manufacturers expand their product ranges on such different segments of the food market as well. The trend affects also fast-food restaurant chains, which are commonly believed to be manufacturers of unhealthy foods: such large companies change their product range in order to meet the expectations of customers and to comply with the existing tendencies, offering more vegetables, limiting the use of semi-finished products, and so on.

Tarabella and Burchi (2018, p. 122) suggest that the aforesaid trends toward healthy lifestyles are actively used by marketers all over the world. In addition to applying their appropriate positioning and advertising to make particular food products more appealing to target customers, companies often resort to deceptive practices. Thus, a popular modern trend on the food market is the promotion of the so-called bioactive foods for the prevention and treatment of diseases. Despite the fact that any such affirmations lack scientific evidence, people following the general trend are prone to buy bioactive foods.

Hammoudi et al. (2015, p. 20) note that one of the present-day tendencies on the food market is the struggle that governments lead for making the products sold healthier. On the one hand, this is in line with the previously noted tendencies toward the adoption of healthy lifestyles by end customers, including the youth. On the other hand, the implementation of rigorous legislation in the field of harmlessness of food products should be seen as a way for governments to protect their domestic market against the impact of foreign companies. The creation of an integrated food market allows boosting domestic production in compliance with the established quality standards, at the same time improving competition between local manufacturers.

The trend for healthy lifestyles is generally associated with the overall trend for sustainable growth. Thus, Farmer (2013 pp. 2-3) notes that large food manufacturers are also trying to gradually change the packaging of their products, limiting the use of plastic and polypropylene so as to minimize the harm brought to the global environment. Other important initiatives in terms of packaging include the use of light-weighting materials,

material reductions, recycling and waste efforts. Companies adopting a holistic approach to their business can not only ensure appropriate market positioning but also guarantee their positive brand image. In the near future, the importance of the aforesaid trends will only tend to grow in line with the shifting customer preferences and rising environmental responsibility.

Cushman & Wakefield (2017, p. 8) notes that an important tendency on the global food market is the customization of products offered to customers. Thus, a common trend all over the world is that the range of flavors, tastes and products offered to customers tends to keep growing. Restaurants are gradually moving toward the customization of their menus. This leads to the emergence of new dishes and cuisines. Manufacturers seek fulfilling customers' desire for exploration and innovation. The socialization of business is also common, as customers are offered opportunities to mix their own tastes and prepare their own dishes.

Deloitte (2016) points out that social impact is gaining an ever-growing role on the food market: "*As consumer expectations increase, experience beyond the actual product or service can elevate satisfaction, trust and loyalty.*" According to the research company, to succeed on the food market, contemporary manufacturers should engage with their customers through both direct cooperation and partnerships with retailers. Another important specific feature is that customers seek greater transparency. Therefore, it is important for food companies to provide the consumers with the full range of information on their products. On the social plain, this also means that companies should maintain the greatest transparency in terms of paying taxes, thus showing their commitment to the community.

The way of interaction between the manufacturers or service providers and the customers on the international food market tends to keep changing as well. Thus, as Cushman & Wakefield (2017, p.9) explains, today, the process of sales and marketing is shifting toward a greater use of online channel and especially social networks. Through online features, customers are offered an opportunity to order directly from their home, paying just in a mouse click. Companies develop applications to simplify the process even more through the use of smartphones. Furthermore, the online channel represents a powerful channel for promotion and advertising. By reaching their target customers online, companies adapt their policies and can maximize the effectiveness of marketing messages, which leads to higher sales and thus revenues.

Investigating the general geographic trends on the market, it is worth citing RSM (2019), who notes that uncertainty will persist. This is explained by the fact that “*Chinese tariffs, for example, are creating excess supplies and driving down other prices (e.g., pork, soybean). Other uncertainties include rising labor costs, the tightening labor market, transportation’s truck driver shortage and planned interest rate hikes.*” As international competition on the market should be expected to rise, prices for food products can be subject to fluctuations, which in its turn will affect the overall market turnover and will have appropriate effects on consumers. RSM also notes that a trend worth expecting in the near future is the growing amount of mergers and acquisitions on the part of both private equity firms and large multinational corporations. The main targets of such deals will be smaller and prospective start-up companies, innovative manufacturers, and niche companies having a unique product or business model to be offered.

2 Obesity and Fast Food

The industry of fast food

“Fast foodism” is now a normal part of unhealthy and hurried diet. Under "fast food" everyone will surely imagine a large hamburger, hot dog, fries, langoustines, sugary lemonades, sausages of all kinds and a pleasant smell that lurks on every corner. For human bodies, this type of snack is mostly an excessive supply of hidden energy in the form of sugars, animal fat, salt and cholesterol.

Fast food is typical of these features: “*it is often processed, with heated (often rancid) oil, typically packaged, and calorie- and chemical-dense*” (Kesten, Scherwitz, 2020, p. 150). Inappropriate technological adjustments are used for food preparation, mainly in way frying or frying in overcooked oil. At the same time, these establishments also lead us to consume food faster, without any effort, standing or moving.

Among the more unknown fast-food chains that prepare food cheaply and quickly are KFC, Burger King, McDonald's, McCafé, Subway, Pizza Hut.

The USA is considered a power in fast restaurants and the consumption of their products. According to Limdico (2020), “*around 20 % of American meals are consumed inside the vehicle, a concept which was not a statistic prior to the establishment of fast food. 9 in 10*

American kids go to a McDonald's restaurant each month. 80 % of Americans dine in a fast-food restaurant at least once each month”.

“TitleMax published The Top 10 Fast-Food Restaurants by sale ¹ in U.S.:

- *McDonald's: \$37 billion in system-wide U.S. sales;*
- *Starbucks: \$13 billion in system-wide U.S. sales;*
- *Subway: \$10.8 billion in system-wide U.S. sales;*
- *Burger King: \$10 billion in system-wide U.S. sales;*
- *Taco Bell: \$9.8 billion in system-wide U.S. sales;*
- *Wendy's: \$9.3 billion in system-wide U.S. sales;*
- *Dunkin' Donuts: \$9.2 billion in system-wide U.S. sales;*
- *Chick-fil-A: \$9 billion in system-wide U.S. sales;*
- *Domino's: \$5.9 billion in system-wide U.S. sales;*
- *Pizza Hut: \$5.5 billion in system-wide U.S. sales. (Hallman, 2021)”*

McDonald's

Schlosser and Wilson (2016, p. 7) point out that visiting Fast food restaurants has become routine these days, for example, eating a hamburger, with ketchup and a Coca-Cola. According to Science Kids *“Undeniably, McDonald's is the most famous fast-food chain around the world. Globally, there are numerous McDonald's stores spread over a hundred countries serving more than 40 million customers per day”* (Limdico, 2020). “McCompany” buys more processed beef, chicken, pork, apples and potatoes than any other company. It spends more money on advertising and marketing than any other company that sells groceries. As a result, it is America's most famous food brand. *“The impact of McDonald's on the way we live today is truly staggering. Golden arches are now more recognized than the Christian cross,”* accordingly Schlosser and Wilson (2016, p. 7).

Brothers Maurice and Richard McDonald founded the first McDonald's in 1948. By converting their barbecue restaurant into a hamburger and milkshake. The restaurant is located in San Bernardino, California, and was the brothers' second venture into the food industry. Their first was a hot dog stand owned by a couple near the Santa Anita track.

¹ including all system-wide sales (which includes franchise sales)

The original McDonald's focused on its hamburgers, fries and cocktails, selling them at half the price and at half the time of competing restaurants. The McDonald brothers revolutionized the burger business to date. Instead of relying on waiters and waitresses, the McDonald brothers installed a self-service counter. Instead of cooking every meal to order, they prepared their burgers in advance and kept the meal warm under high-powered heat lamps (Reed, 2020).

In 1961 Kroc bought out the founder completely and led the company himself. While Maurice and Richard McDonald created the first restaurant and its business model of catering services, it is probably Ray Kroc who founded McDonald's as the world now knows it. He was able to turn the San Bernardino restaurant into a mass market.

Obesity

Obesity, also known as fatness, is simply an excess of body fat. The possibilities of storing this fat are almost limitless in the body. Fats are readily accepted into the body if the organism allows them to.

Both overweight and obesity belong to "civilization diseases". But it no longer applies only to adults but also to children. Although a healthy living style has been increasingly promoted recently, humanity is growing fatter.

The World Health Organization (WTO) (2020) defines obesity as *“a complex condition with a sincere social and psychological dimension that affects virtually all age and socioeconomic groups and threatens to overwhelm developed and developing countries alike”*. The WTO reports an alarming numerical evolution of obesity. *„In 1995, there were an estimated 200 million obese adults worldwide, and another 18 million children under the age of five were classified as overweight. Since 2000, the number of obese adults has risen to more than 300 million. (WHO, 2020)”* However, it should be pointed out, at the moment, obesity has spread around the world, which is why it is also often called the "3rd Millennium Epidemic." The obesity epidemic is not limited to industrialized societies; in developing countries, more than 115 million people are estimated to suffer from obesity-related problems (WHO, 2020).

Factors affecting obesity

Some global processes, such as economic growth, modernisation, urbanisation and the globalisation of retail chains, are contributing to the onset of the obesity problem. Other factors are the trend of over-consumption and the tendency to reduce a person's physical activity (less physical activity on the job, use of passenger car transport, technology and modernisation of the household contribute to both facilitating work and reducing mobility activity). According to Fuller (2019, p. 13), „*one of the most common causes of obesity is brought about by overeating and lack of physical exercise. Ultimately, the body weight is determined by metabolic, genetic, behavioral, environmental, and cultural factors*”.

Overweight precedes obesity. The difference between the two is determined by the BMI (Body Mass Index). Overweight is referred to in the range BMI 25-30. The higher values indicate obesity, which varies depending on the higher BMI. The following symptoms will help to identify obesity and therefore warn against being fat (Fuller, 2019, p. 54):

- a large body weight;
- excessive fat accumulation on one's upper arms, thighs, and waist;
- an unproportioned facial structure like having a double chin;
- skin problems mainly brought about by moisture accumulating around skin folds;
- sleep apnea;
- breathing problems;
- lethargy;
- varicose veins;
- gallstones;
- whiteish and purplish patches around the abdomen.

Health risks – Metabolic Syndrome

The higher the level of obesity, the greater the health risks. For instance, risk of higher pressure, type 2 diabetes, higher risk of cardiac vascular diseases such as myocardial infarction or stroke, higher blood fat levels etc. Metabolic syndrome refers to the sum of several medical conditions that are usually related to obesity. It is simply the name of a group of risk factors. In addition to high levels blood fats and high blood pressure, other risk factors include a large waistline, low HDL (good) cholesterol, which helps to remove bad LDL cholesterol arteries and high blood sugar fasting, early signs of diabetes, coronary heart

disease, abnormal blood fats, atrial fibrillation, cancer, osteoarthritis, sleep apnea, asthma, kidney disease, etc. People with at least three risk factors are diagnosed with Metabolic syndrome (Lavie, Loberg, 2014, p. 54).

Obesity treatment is most successful when carried out in collaboration with multiple experts, like an internist, a diabetologist, a nutritionist, a surgeon, a gastroenterologist and, last but not least, a psychologist. Obesity counselling is a significant part of the whole treatment. Each patient's treatment is very individual, and an appropriate combination should be determined to help reduce weight and gain healthy self-esteem.

Elementary treatment approaches for obesity:

- Conservative treatment is always the first step in the fight against obesity, including individuals perform examinations, lifestyle changes, diet modification, post-hypoactivity, appropriate medication. The main role of medicines in the treatment of obesity is that they suppress appetite by creating a strong sense of satiety.
- Surgical treatment will permanently resolve obesity problems, helps treat type 2 diabetes, hypertension and other serious diseases.

Weight calculators

There are many possibilities how to measure weight. As example can be mentioned: “*BMI Calculator, Calorie Calculator, Army Body Fat Calculator, Body Fat Calculator, BMR Calculator, Weight Watchers Points Calculator, Anorexic BMI Calculator, Carbohydrate Calculator, Ideal Weight Calculator, Body Type Calculator, Lean Body Mass Calculator, Healthy Weight Calculator*” (Singh, 2014).

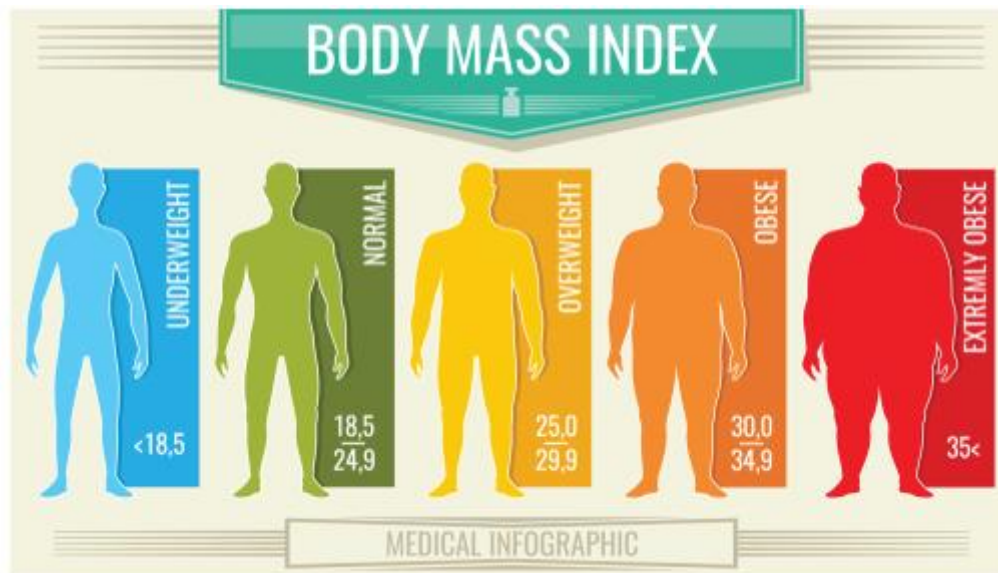
Body Mass Indicator – BMI

BMI is generally considered more of a statistical indicator. It points to the line between overweight and obesity. For a particular individual, it cannot be considered an accurate measurement. The calculation is very simple, however it disregards a large number of important factors. Its basic calculation consists of the following data (Singh, 2014):

- “ $BMI = weight (kg) / height^2 (m^2)$ (Metric Units).
- $BMI = 703 * weights (lb) / height^2 (in^2)$ (U.S. Units)”.

The Body Mass Index gives less accurate data especially for children, older people and active athletes. A more accurate body weight assessment than the BMI calculator is performed by a physician who includes other parameters such as gender, age, muscle volume and build type.

Figure 9: Body Mass Index



Source: Vectorstock.com, 2021

The observational research published in The Clinical Infectious Diseases Journal looks at the risk of hospitalization by body mass index, or BMI. Scientists found that obese adults under the age of 60 had a higher risk of hospital and intensive care admissions compared to people who were a healthy weight, says lead author Dr. Jennifer Lighter (Scribd, 2021).

Conclusion

This work is devoted to the topic of environmental sustainability of eating habits of mainstream population in the developed countries. Since the topic of the work is very wide, it was narrowed down to the area of studying the influence of large manufacturers in the field of fast food and catering establishments on the physical condition of the country's inhabitants. Physical condition in the context of this work was measured in the BMI index, which measures a person's body mass index.

In this paper we provide a literature overview of this topic and we outline the main assumptions to be used in the empirical research on this issue. We first describe the role of multinational companies on the food market and the current global trends on this market. Then we focus on the fast food subset of the food market and on the issues of overweight and obesity.

Bibliography

Adams, R. M., Hurd, B. H., Lenhart, S. and Leary, N. (1998). Effects of global climate change on agriculture: an interpretative review. *Procedia – Social and Behavioral Sciences*, Vol. 11, pp.19-30.

Al, K. (2014). *Results of the German health interview and examination survey for adults*. Munich: Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz.

Albuquerque, D., Nóbrega, C., Manco, L. and Padez, C. (2017). The contribution of genetics and environment to obesity. *British medical bulletin*, 123(1), pp.159-173.

Anderson, M.L., Matsa, D. A. (2011). "Are Restaurants Really Supersizing America?" *American Economic Journal: Applied Economics*, 3 (1): 152-88.DOI: 10.1257/app.3.1.152

Aramouni, F. and Deschenes, K. (2014). *Methods for Developing New Food Products: An Instructional Guide*. Lancaster: DEStech Publications, Inc. ISBN 9781605951126. 410 p.

Boeger, N., Murray, D. and Villiers, C. (2008). *Perspectives on Corporate Social Responsibility*. Cheltenham: Edward Elgar Publishing. ISBN 9781848443792. 258 p.

Bowman, S. A., Gortmaker, S. L. (2004). Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Journal of nutrition and health*, pp. 112-118.

Brandesen, S. and Pella, I. A. (2020). Combating Obesity in the Czech Republic. *Worldfoodprize.org*. [online] Available at: http://www.worldfoodprize.org/documents/filelibrary/images/youth_programs/research_papers/2010_papers/PellaChristianHS_BrandesenSarah_D0FFC8AF2FF5C.pdf [Accessed 21 Feb. 2020].

Certo, S. C. and Certo, S. T. (2009). *Modern Management: Concepts and Skills*. Upper Saddle River, NJ: Prentice Hall. ISBN 9780136010166. 600 p.

Cohen, S. D. (2007). *Multinational Corporations and Foreign Direct Investment: Avoiding Simplicity, Embracing Complexity*. Oxford: Oxford University Press. ISBN 9780198039853. 384 p.

- Coutts, J. and Fielder, J. (2009). *Management of Food Allergens*. Hoboken, NJ: John Wiley & Sons. ISBN 9781444309928. 272 p.
- Currie, J., Della Vigna, S., Moretti, E., Pathania, V. (2009). The Effect Of Fast Food Restaurants On Obesity And Weight Gain. *Cambridge, MA 02138* [online]. Available at: https://www.nber.org/system/files/working_papers/w14721/w14721.pdf [Accessed 27 Apr. 2021].
- Cushman & Wakefield. (2017). *The Global Food & Beverage Market. What's on the Menu?* [online] Available at: <https://prch.org.pl/pl/baza-wiedzy/26-swiat/182-report-the-global-food-and-beverage-market-what-s-on-the-menu-summer-2017-cushman-wakefield> [Accessed 21 Jul. 2019].
- De Vogli, R., Kouvonen, A., Gimeno, D. (2011). 'Globozization': *Ecological evidence on the relationship between fast food outlets and obesity among 26 advanced economies*. *Critical Public Health*. 2011. 395-402. DOI 10.1080/09581596.2011.619964.
- De Vogli, R., Kouvonen, A., Gimeno, D. (2013). The influence of market deregulation on fast food consumption and body mass index: a cross-national time series analysis. *WHO* [online]. Available at: <https://www.who.int/bulletin/volumes/92/2/13-120287/en/> [Accessed 27 Apr. 2021].
- Deloitte. (2016). *Capitalizing on the shifting consumer food value equation*. [online] Available at: https://www2.deloitte.com/content/dam/Deloitte/za/Documents/consumer-business/ZA_Deloitte-Capitalising-on-the-shifting-consumer-food-value-equation-Jun16.pdf [Accessed 21 Jul. 2019].
- Diaconu, L. (2012). Business Strategies of Multinational Corporations. *CES Working Papers*, IV (2), pp.141-151.
- Earle, R. and Anderson, A. (eds.). (2001). *Food Product Development: Maximizing Success*. London: CRC Press. ISBN 9780849312090. 256 p.
- Farmer, N. (2013). Trends in Packaging of Food, Beverages and Other Fast-Moving Consumer Goods (FMCG): Markets, Materials and Technologies. Amsterdam: Elsevier. ISBN 9780857098979. 344 p.

- Ferdausy, S. and Rahman, S. (2009). Impact of Multinational Corporations on Developing Countries. *The Chittagong University Journal of Business Administration*, Vol. 24, pp.111-137.
- Fuller, M. (2019). *Understanding Obesity: A New Hope For Weight Loss and Escaping Food Addiction*. Publisher: Thomas William Swain. ISBN 9781393966104.
- Gershon, R. (2012). *The transnational media corporation*. New York: Routledge. ISBN 9781136685521.
- Hallman, C. (2021). The Revenue of Fast Food Chains in America. *Titlemax.com* [online]. Available on: <https://www.titlemax.com/discovery-center/money-finance/the-revenue-of-fast-food-chains-in-america/> [Accessed 27 Apr. 2021].
- Hammoudi, A., Grazia, C., Surry, Y. and Traversac, J.-B. (eds.). (2015). *Food Safety, Market Organization, Trade and Development*. Berlin: Springer. ISBN 9783319152271. 254 p.
- Hsiao, H.-I. (2009). *Logistics Outsourcing in the Food Processing Industry: A Study in the Netherlands and Taiwan*. Wageningen Academic Pub. ISBN 9789086861118. 124 p.
- Chatham, J. (. (2013). In *Mediterranean Diet: Unlock the Mediterranean Secrets to Health and Weight Loss with Easy and Delicious Recipes*. S.l: *Rockridge Press*, pp. 17-21.
- In Cinotto, S. (2017). *Household consumption survey*. Rome: Italian National Institute of statistics.
- Kaynak, E. (2014). *Cross-National and Cross-Cultural Issues in Food Marketing*. London: Routledge. ISBN 9781317957249. 114 p.
- Kesten, D. and Scherwitz, L. (2020). *Whole person integrative eating: a breakthrough dietary lifestyle to treat the root causes of overeating, overweight, and obesity*. Published on Scribd.com. ISBN: 9781887043557.
- Kordos, M. and Vojtovic, S. (2016). *Transnational corporations in the global world economic environment*. *Procedia - Social and Behavioral Sciences*, 230, pp.150-158.
- Lavie, C. J. and Loberg, K. (2014). *The Obesity Paradox: when thinner means sicker and heavier means healthier*. Published by Scribe. ISBN 9781925113211.

- Limdico, P. (2020). 57 Critical Fast Food Industry Statistics and Trends. *Foodtruckempire.com* [online]. Available at: <https://foodtruckempire.com/news/fast-food-statistics/> [Accessed 27 Apr. 2021].
- Linarelli, J., Salomon, M. E. and Somarajah, M. (2018). *The Misery of International Law: Confrontations with Injustice in the Global Economy*. Oxford: OUP. ISBN 9780191068713. 200 p.
- Man body mass index fitness bmi chart vector image. *Vectorstock.com* [online]. Available at: <https://www.vectorstock.com/royalty-free-vector/man-body-mass-index-fitness-bmi-chart-vector-18799545> [Accessed 27 Apr. 2021].
- McDonald's. (2019). Burgers, Fries & More. Quality Ingredients. *Mcdonalds.com*. [online] Available at: <https://www.mcdonalds.com/us/en-us.html> [Accessed 27 Apr. 2021].
- Moreras, J. A. (2015). Evaluation of food consumption and dietary patterns in Spain by the Food Consumption Survey. *Evaluation of food consumption and dietary patterns in Spain by the Food Consumption Survey* (pp. 37-43). Madrid.
- Nagpal, S., Gibson, G. and Marigorta, U.M. (2018). *Pervasive modulation of obesity risk by the environment and genomic background*. *Genes*, 9(8), p.411.
- OECD & FAO. (2018). *OECD-FAO Agricultural Outlook 2018-2027*. [online] Available at: http://www.agri-outlook.org/Outlook_flyer_EN.pdf [Accessed 21 Jul. 2019].
- OECD. (2017). *Health at a glance 2017: OECD indicators*. Place of publication not identified: Organization for economic.
- Ogden, C. L, M. D. (2010). *Prevalence of high body mass index in US 2007-2008*. *Journal of the American Medical Association*, 242-249.
- Olišarová, V., Tóthová, V., Bártlová, S., Dolák, F., Kajanová, A., Nováková, D., Prokešová, R. and Šedová, L. (2018). *Cultural features influencing eating, overweight, and obesity in the Roma people of South Bohemia*. *Nutrients*, 10(7), p.838.
- Olmedillas, H. and Vicente-Rodríguez, G. (2017). *Stabilization in the Prevalence of Overweight and Obesity in Spanish Children and Young Adolescents*. *Revista Española de Cardiología (English Edition)*, 70(8), pp.629-630.

- Pecoraro, L., Pietrobelli, A., Zaffanello, M., Paiola, G., Comberiati, P. and Piacentini, G., (2018). *What's going on pediatric obesity: Report from Italy*. Review Paper – Current Pediatric Research, volume 22, Issue 3.
- Popkin, L. M. (2016). *The nutrition transition in Spain: a European Mediterranean country*. European Journal of Clinical Nutrition, pp. 992-1003.
- Pounis, G., Di Castelnuovo, A., Costanzo, S., Persichillo, M., Bonaccio, M., Bonanni, A., Cerletti, C., Donati, M.B., De Gaetano, G. and Iacoviello, L. (2016). *Association of pasta consumption with body mass index and waist-to-hip ratio: results from Moli-sani and INHES studies*. Nutrition & diabetes, 6(7), pp. e218-e218.
- Prevention of overweight and obesity: a Spanish approach*. (2019). In C. P.-R. avier Aranceta, *Spanish National report on obesity and overweight* (pp. 87-93). Barcelona: Complejo Hospitalario Universitario de Ferrol.
- Reed, E. (2020). History of McDonald's: Timeline and Facts. *TheStreet.com* [online]. Available at: <https://www.thestreet.com/markets/history-of-mcdonalds-15128096> [Accessed 27 Apr. 2021].
- RSM. (2019). *Top 2019 trends for food and beverage industry businesses*. [online] Available at: <https://rsmus.com/what-we-do/industries/consumer-products/food-and-beverage/top-trends-for-food-and-beverage-industry-businesses.html> [Accessed 21 Jul. 2019].
- Scribd. Obesity Is America's 'Achilles Heel' When It Comes To COVID-19. *Scribd.com* [online]. Available at: <https://www.scribd.com/article/463428688/Obesity-Is-America-s-achilles-Heel-When-It-Comes-To-Covid-19> [Accessed 27 Apr. 2021].
- Schlosser, E., Wilson, C. (2016). *Chew on this: everything you don't want to know about fast food*. Published on Scribd.com. New York. Available at: <https://www.scribd.com/read/249309267/Chew-On-This-Everything-You-Don-t-Want-to-Know-About-Fast-Food#> [Accessed 27 Apr. 2021].
- Schwendicke, F. and Stolpe, M. (2017). Taxing sugar-sweetened beverages: impact on overweight and obesity in Germany. *BMC public health*, 17(1), p.88.
- Singh, Ch. B. (2014) Weight Loss Calculators for Motivation – Before and After Weight Loss Programs. Know Your Body Mass Index (BMI) and Calorie Intake for Quick Weight Loss Results. A Book with Tips to Keep Motivated. *Smashwords Edition published on*

Scribd.com. [online]. Available at: <https://www.scribd.com/read/249632864/Weight-Loss-Calculators-for-Motivation-Before-and-After-Weight-Loss-Programs> [Accessed 27 Apr. 2021].

Statista.com. (2019a). *Food & Beverages - worldwide | Statista Market Forecast*. [online] Available at: <https://www.statista.com/outlook/253/100/food-beverages/worldwide> [Accessed 17 Jul. 2019].

Statista.com. (2019a). *Food & Beverages - worldwide | Statista Market Forecast*. [online] Available at: <https://www.statista.com/outlook/253/100/food-beverages/worldwide> [Accessed 21 Jul. 2019].

Statista.com. (2019b). *Fast food industry market share worldwide, by brand 2018 | Statista*. [online] Available at: <https://www.statista.com/statistics/273057/value-of-the-most-valuable-fast-food-brands-worldwide/> [Accessed 18 Jul. 2019].

Statista.com. (2019c). *Packaged food sales worldwide from 2014 to 2019 (in billion U.S. dollars) | Statista*. [online] Available at: <https://www.statista.com/statistics/420252/global-packaged-food-retail-sales-value/> [Accessed 17 Jul. 2019].

Statista.com. (2019d). *Ready Meals Worldwide | Statista*. [online] Available at: <https://www.statista.com/outlook/40080100/100/ready-meals/worldwide#market-revenue> [Accessed 20 Jul. 2019].

Ščasný, M. U. (2018). *Survey on Household food consumption*. Prague: Czech statistical office.

Tarabella, A. and Burchi, B. (2018). *New Food Products: Evolution, Innovation Rate, and Market Penetration*. Berlin: Springer. ISBN 9783319238111. 94 p.

Wankel, C. (2007). *21st Century Management: A Reference Handbook*. Thousand Oaks, CA: SAGE Publications. ISBN 9781452265636. 1136 p.

Webber, L., Divajeva, D., Marsh, T., McPherson, K., Brown, M., Galea, G. and Breda, J. (2014). The future burden of obesity-related diseases in the 53 WHO European-Region countries and the impact of effective interventions: a modelling study. *BMJ open*, 4(7), p.e004787.

WHO. (2013). *Global Health Observatory Data Repository* [online]. Geneva: World Health Organization. Available at: <http://apps.who.int/gho/data/view.main> [Accessed 21 Feb. 2020].

WHO. (2020). Controlling the global obesity epidemic. *Who.int* [online]. Available at: <https://www.who.int/activities/controlling-the-global-obesity-epidemic> [Accessed 27 Apr. 2021].