Abstract:

**Purpose:** The aim of this article is to analyze the impact of the COVID-19 pandemic on the fitness club industry in Poland. In the article, the author focused on his own observation with particular emphasis on the factors influencing the demand and supply of the fitness club industry in Poland. The study can be helpful in the event of other crises or the adaptation of the fitness club industry to the new post-pandemic reality.

**Design/methodology/approach:** Identification of key success factors in post-pandemic reality. On their basis, forecasts for the fitness club industry in Poland were made. Identifying the impact of COVID-19 on the demand and supply sides. Presentation of the forecast for COVID-19 fitness clubs.

**Findings:** The subject of the dissertation is located in a relatively new trend in sports management in Poland. There is still a lack of research on how to manage fitness clubs in Poland, especially in the new post-pandemic reality. The article presents the author's usefulness of the key features of the types of fitness clubs in Poland.

**Practical Implications:** The results of the study fill the research gap of the current literature on the impact of the COVID-19 pandemic on the fitness club industry in Poland.

**Originality/Value:** The research presented in the article enriches the current literature on the fitness club industry in Poland. By using the author's observations and analyzing reports on the impact of COVID-19 on the fitness club industries in Poland identifies the effect of COVID-19 on the demand and supply sides.

**Keywords:** Demand, supply, COVID-19, fitness.

**JEL codes:**

**Paper type:** Research article.
1. Introduction

In this article, I present my own analysis of the forces influencing the demand and supply of the post COVID-19 fitness club industry in Poland. “Supply and demand analysis is the most important thing and the most useful tool of microeconomics.”

The COVID-19 pandemic is referred to by many researchers as the "Black Swan" phenomenon. The "Black Swan" theory, according to one of the most identified researchers, New York professor Nassim Nicholas Taleb, who argues that "stories are created primarily by events with the rank of Black Swans, while we focus on the most accurate understanding of what is ordinary, therefore our models, theories and interpretations cannot capture them or measure the possibility of such shocks.”

According to Taleb, the theory is characterized by three features, high rarity, extreme influence and retrospective predictability. In the described theory, an important meaning is the denial of fragility. "Some things are shaken, develop and flourish under the influence of volatility, randomness, disorder and stress, adventure, risk and uncertainty is their element. However, despite the ubiquity of this phenomenon, there is no word for the exact opposite of fragility. So let's call them anti-fragility.”

"Black Swans" change the world we know today. It seems necessary to act decisively in building and developing anti-fragility. It is also significant that the "Black Swans" undergo a process of mutation, which makes uncertainty something desirable to favor anti-fragility. This phenomenon is perceived both on the micro and macro scale.

The concept of fitness can also be defined depending on the reference plane. From the micro perspective, fitness is treated as a feature and attribute of the human body, while from the macro perspective, fitness is a strategy and lifestyle. In general, fitness is a variety of types of organized physical activities with specific goals and methodological foundations, carried out most often in the form of group classes with the use of appropriately selected music and accessories and instruments.

2. Research Methodology

A fitness club is a company that aims to improve your physical condition and bodybuilding. The fitness club "is a place dedicated to exercise and equipped with appropriate equipment, and at the same time, for some people, it is a place where you can learn something about your physical activity, as well as gain experience and relax. Nowadays, fitness clubs offer their clients a wide range of services, from

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2Samuelson Paul.A, Nordhaus Wilialm D., Ekonomia, Poznań 2017, s. 61.
3Telab N.N., Antykruchość. Jak żyć w świecie, którego nie rozumiemy, Poznań 2013, s. 25.
4Bidem, s. 21.
organized group classes, such as aerobics, to individual forms of training, such as, for example, personal training, which is becoming more and more popular. The offer of each fitness club should take into account the client's needs. Therefore, in addition to the option of providing a short, but effective training, the club should offer a relaxation zone that would be a response to common diseases and backaches and civilization diseases, and would also guarantee praiseworthy experiences, motivation and consumer satisfaction.

The negative impact of the COVID-19 pandemic triggered a lockdown in the economy. In the Journal of Laws, an ordinance appeared on the closure of, inter alia, Polish fitness clubs. This regulation was then extended. This resulted in an obvious decline in revenues for the fitness club industry. It also influenced the functioning of fitness clubs as a necessity to strategically and dynamically respond to the upcoming market changes.

The analysis of the fitness industry carried out by the consulting company Deloitte and the EuropeActive organization informs that: "the financial effects of such a long downtime will be difficult to offset (...) in the most optimistic scenario, when the clubs are opened before the beginning of June, the revenue gap in the industry will amount to PLN 1.84 billion just before the outbreak of the pandemic in Poland, there were about 2.7 thousand fitness clubs attended by just over 3 million people.

The revenues of the Polish market in 2019 amounted to EUR 986 million (excluding VAT), i.e., PLN 4.23 billion. The monthly average membership fee has fallen by 1.8% year-on-year and amounted to EUR 26.5.

Fitness plays an increasingly important role as a social phenomenon in many countries and economic, contributing significantly to the achievement of strategic goals such as the well-being of society. Fitness is a phenomenon that contributes to the acceleration of economic growth and the creation of new jobs. It can be used as a tool for the development of the local and regional market. It is also an attractive type of economic activity. Participation in fitness clubs becomes an important part of the lifestyle of various social classes.

The Polish Fitness Federation presented a document in which it warns that: "Socio-economic restrictions, coupled with a slow return to the new, yet unexplored post-COVID-19 reality, may mean that the total revenue of the industry may decrease by

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5 Leśniewska, A., Stosik, A., Personal trainers professional qualifications-demands of the labour market, Quality in Sport nr 2, 2016, s. 44.
6 Baranowska, A., Wawrowski, M., Kamola, J., Jagucka-Miętėl, W., Brzeska, P., Sobolewska, E., Aktywność fizyczna członków klubu fitness World w Szczecinie, Pomeranian Journal of Life Sciences nr 60, Szczecin 2014, s. 16.
7 European Health & Fitness Market Report 2020, s. 7.
up to half [...] In a pessimistic scenario as many as one-third of the fitness clubs operating today will collapse or change operators.\textsuperscript{8}

In this new post-pandemic reality, digitization has a major influence on the tested objects, which are fitness clubs. It requires fitness clubs to incorporate digital solutions into their business models. Mobile applications are appreciated by people under 45, which is the most numerous group among fitness club clients. They appreciate, among others the ability to track your own physical condition in real time and share the results with other club members. The digitization of the industry seems particularly important at a time when limiting group meetings is necessary. Switching to an online business often becomes a priority way to maintain fitness club functionality.

The increase in sales is also visible in the sale of equipment and fitness accessories for home use. For many club members of fitness clubs, the possibility of training not only in a fitness club, but also at home is more and more important. These premises contributed to changes in the functioning of many market participants in the fitness club industry, including greater focus on individual customer needs.

The industry environment is the basic factor in the functioning of enterprises. Industry theory is related to company theory. It shows the sources of innovation, industry-specific features, processes occurring in them and mechanisms of mutual interactions between enterprises.

According to W.J. Otto 91996) "industry is a set of business entities offering similar products or services for sale.\textsuperscript{9} M.E. Porter believes that "a specific industry is made up of substitute producers"\textsuperscript{10}. On the other hand, according to M. Porter, the sector is a group of enterprises producing substitutes.

In Poland, there is a noticeable division of fitness clubs into four leading sectors, to which most fitness clubs in Poland can be classified:

1. Middle market fitness club. These are medium-sized fitness clubs, with an area around 700-1200 m2, most often with customer service, without any clear training specialization. The price of tickets and services is at the average market price.
2. A "low-cost" fitness club. These are fitness clubs, most often large-area, emphasizing the greatest possible automation and low variable costs,

\textsuperscript{8}Raport badawczy cześć I, Aktywność fizyczna Polaków w czasie epidemii, Barometr Nastrojów i zachowań konsumenckich w trakcie izolacji pomiar III, SW Research, Warszawa 2020, s. 8.
\textsuperscript{9}Otta, W.J., Teoria przedsiębiorstwa a przejście do gospodarki rynkowej, „Ekonomista” 1996, Nr. 1.
\textsuperscript{10}Porter, M.E., Choix Strategiques et Concurrence, „Ekonomista” 1996, Nr. 1.
without a clear training specialization. The cost of a subscription or membership usually does not exceed the lowest market prices. Clubs in this sector strive for the maximum automation of sales processes by replacing sellers with vending machines, air kiosks or special applications dedicated to club members.

3. Fitness club - boutique studio. They are small objects. Specializing in group training. A boutique studio offers its club members a more individual approach, but also usually higher membership prices in relation to market prices.

4. Premium class fitness club. By far the smallest number of fitness clubs in Poland. Currently, the percentage of participants is disproportionate to the capital that an entrepreneur running a fitness club has to invest to open a "premium" class fitness club in most Polish cities, which makes them deficient.

### Table 1. Usefulness of the Key Features of the Types of Fitness Clubs.

| Fitness Club Type          | Area          | Membership Price | Specialization | Digitization and Automation | Individual Approach | Additional Offer | Number of Points | Mean |
|----------------------------|---------------|------------------|----------------|----------------------------|---------------------|------------------|------------------|------|
| Middle Market              | The smallest  | medium           | medium         | medium                     | medium              | medium           | 11               | 1.83 |
| Low-cost                    | biggest       | lowest           | low            | high                       | low                 | low              | 10               | 1.66 |
| Boutique Studio             | medium        | medium           | big            | medium                     | High                | high             | 15               | 2.5  |
| Premium Club                | medium        | biggest          | big            | High                       | High                | high             | 17               | 2.83 |

**Note:** The table shows the scale of usefulness of the key features of the types of fitness clubs. The author has adopted a 3-point scale. Where 1 is the lowest utility of a given feature, 2 is the average and 3 is the highest. The table shows the total score of the key performance features for each type of fitness club and the calculated average for each type of fitness club. **Source:** Own study.

### 3. Business Model: Factors Affecting Demand in the Fitness Club Industry

The COVID-19 pandemic had a big impact on demand factors in the fitness club industry.

1. These include population growth, which would mean an increase in sales of fitness club membership offers.
2. The second factor is average income, when income grows, people buy more higher-order goods. Membership in a fitness club belongs to such goods.
3. The tastes of Polish women and Poles are also an important factor. Participation in a fitness club becomes a symbol of social status.
4. Another factor is the prices of related goods. The lower price of the fitness club add-on offer should increase the demand for fitness club memberships.

5. The last factors are specific factors. Availability of other forms offered as part of the subscription resulting from membership in a fitness club, the safety of club members or expectations regarding future price increases.

4. Business Model: Factors Affecting Supply in the Fitness Club Industry

The COVID-19 pandemic had a big impact on accelerating the processes of digitization and digitization.

1. Technology is a factor that causes an increase in supply in the analyzed fitness club industry.

2. The amount of expenditure is also an important factor. Lowering the salary of a fitness club employee - will reduce costs and increase the supply of the fitness services industry. You can make these changes in two ways, or separate the personal trainer from the fitness club team, or introduce digital solutions, the trainer in a digital form.

3. Prices of related goods. If the prices of supplements and water available at the bar of a fitness club fall, the supply of fitness clubs will increase.

4. Government policy, removing the limits will increase the total supply of the fitness club industry.

5. Specific factors, a well-developed business model will make it easier for the consumer to compare the functionality of various competing fitness clubs.

5. Results

The following reality after the COVID-19 pandemic may require adaptation, and maybe even a significant change in the functioning of fitness clubs. Understanding customer needs in the new reality and enabling them to practice their favorite sports safely as and effective way will be a challenge, but also an interesting opportunity for the fitness club industry. Building a community, a sense of belonging and (unforced) loyalty. Short, usually intense, group training forms encourage competition and give customers an extra dose of motivation. If the change of the business model is initiated by the consumers themselves, it is already known that there is little time for its efficient implementation.

The way to avoid being sidelined by technological ignorance is to make changes yourself. These changes are already taking place to play both games: digital and traditional, the fitness club industry needs to find an answer to the "how" question. How will you introduce innovations, does he have to build them, buy them, establish a partnership? How does this fit into the traditional model of running a fitness club, and most importantly, can it be done right?
6. Conclusions

An entrepreneur operating in the fitness club industry may choose not to adopt innovations and propose a proprietary business model that will provide an even better training experience than the proposed innovations.

Taking care of health is hard, even arduous, everyday work. It requires mobilization, often also giving up momentary pleasure in order to achieve a long-term goal. Fitness allows you to achieve and maintain well-being at every level of life. Regular visits in a fitness club, they allow you to take up challenges and achieve both private and personal goals and professional.

Right after physical exertion, a person performing a social function of an employee or employer will certainly feel a surge of positive energy reducing mental fatigue after a whole day of work. Man is less tired, negative thoughts and accompanying negative emotions disappear. In order to return clarity of mind, concentration necessary in the process of making decisions, management making decisions. Fitness is therefore a great way to relieve tension. Temporarily disconnect from stressful stimuli.

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