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Escape Rooms in Poland: The Rise and Fall of Big City Entertainment

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Abstract: In the second decade of the 21st century, escape rooms became one of the primary forms of leisure entertainment. Poland was one of Europe's largest and most innovative markets for this type of entertainment. However, two unpredictable events (a fatal fire and the COVID-19 pandemic) resulted in a dramatic decline in the escape room sector. The main aim of this study is to provide an in-depth characteristic of the development of the escape room sector in Poland in 2014–2024, from the creation of the first room through booming popularity to the rapid decline and crisis in recent years. The author used statistical data obtained from the lockme.pl website, an industry report from 2018, their own research, and the available academic and popular science publications. The conducted cause-and-effect analysis allowed for the identification and definition of the main factors that contributed to the escape room sector's unprecedented development and the factors responsible for its subsequent fall. The obtained results enabled the author to analyse and describe the unique life cycle of the escape room sector in Poland. Furthermore, spatial analysis allowed the author to find certain regularities in the location of this type of attraction, as well as the course of the geographic spread and shrinkage of the analysed phenomenon (in the territory of the country and 10 of its biggest cities). The presented results carry essential theoretical and practical implications. They point, among other things, to the need for the management to take paradoxical, apparently mutually contradictory actions (coopetition) and sometimes measures that might seem completely irrational (planning responses to unlikely threats as part of strategic crisis management).

Keywords: escape rooms; ER market; tourism product life cycle; black swan; COVID-19 pandemic; Poland



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1. Introduction

In the 21st century, in response to the rapidly changing tourist and recreational needs of the population, certain new and innovative products emerged. The nature of these products was often specialised and niche, yet they provided their audiences with unforgettable experiences and emotions. They are usually based on three phenomena: creativity, gamification and hyper-reality [1]. Creativity in this case means the desire to spend free time in a valuable, creative way, in a way that allows for the development of one's own personality, talents, as well as acquiring knowledge and new skills. They lead to a desire to be physically exposed to art, design, crafts, food, spirituality, foreign languages, sport, etc. Gamification refers to using the mechanics of a game (such as role-playing or computer games) in a way and for a purpose different from its original, traditional context [2]. It is most often used to control human behaviour so as to increase people's engagement, encourage people to enter into active interactions, and co-create a unique adventure with

an unpredictable ending. This is linked to the notion of hyperreality, which is the conscious blurring of the border between reality and imagination and the use of modern technologies to create alternative worlds that become even more real than real [3] (p. 190). All of these phenomena fit perfectly into the broader concept of the experience economy [4], where the primary value provided to customers consists of unique experiences that are saturated with strong emotions.

One of the most interesting examples of the creation of an innovative offer in the leisure sector is escape rooms. Escape rooms involve participants who are confined to a room and given a set amount of time to find a way to escape, solving a series of riddles or puzzles and/or manual tasks. Every escape room has its own theme (e.g., based on detective stories, adventures, travel, or film). The participants are assisted by the game master, who presents the plot, explains the game's rules, monitors the game's proper course, and, optionally, provides some clues. Thanks to appropriate interior design, modern technologies that affect all senses, and sometimes actors who play certain characteristic scenes, the participants who enter the room may feel as if they entered a wormhole that leads them to a completely different reality [5,6].

The popularity of escape rooms is due, among other things, to changing consumption patterns. Currently, customers are primarily looking for products and services that provide authentic emotional experiences, active involvement, co-creation, and storytelling. This game guarantees novelty and hedonistic experiences.

Escape rooms are an interesting offer for city users, including permanent residents, temporary residents, and tourists. From the point of view of residents, such attractions expand the cultural and entertainment offers of the city and increase the attractiveness of spending free time. They have a direct influence on the increasing effectiveness of residents' rest and recreation and their general sense of joy, contentment, and satisfaction with life (well-being) and indirectly contribute to an improvement of the quality of life and the social development of cities.

For travellers, escape rooms are new, alternative tourist products that meet the needs of people with special interests or present well-known tourist attractions in a different manner to the usual. Escape rooms, focusing on creativity, innovation, and immaterial content, provide tourists not only with emotional entertainment but also allow them to get to know the place they are visiting in an original way and discover its genius loci. This is especially true as the action of some games does not take place in closed rooms but on the city stage.

The first real escape room, called the Real Escape Game (REG), was created in Japan in 2007. As a result of the global diffusion of innovation, this new entertainment idea has spread globally in a very short time. Within only a few years, escape rooms started emerging on all continents, becoming enormously popular and attracting countless fans (both local residents and tourists). Poland became one of the leaders in the global escape room market. Initially, the number of rooms increased virtually exponentially [6]. Villar Lama and García Martín [7] included Poland in the so-called "Big 7", i.e., the group of seven European countries with over 200 such establishments. However, unlike the other countries, Poland faced a spectacular collapse of the escape room market caused by sudden and unpredictable events, often referred to as "black swans" in economics theory.

The main aim of this study is to present the rapid growth and, even more surprising, dramatic fall of the escape room market in Poland in quantitative, qualitative, and spatial terms. The conducted cause-and-effect analysis enabled the author to identify and define the main factors that contributed to the development of the analysed phenomenon and determine its collapse. The obtained results allowed the author to analyse and describe the specific life cycle of the escape room sector in Poland.

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2. Literature Review

In spite of their large popularity throughout the world, escape rooms have not yet received sufficient attention in academic literature. Villar Lama and García Martín [7] found a total of 80 academic papers in which the term "escape room" was used in the Scopus and Web of Science databases. However, these studies focus primarily on the principles of constructing such rooms and their use in teaching various classes on all levels of education (from primary schools to universities). The subjects include such diverse fields of knowledge as medical sciences [8–10], science and technology courses [11–13], teaching foreign languages [14], sexual education [15], and hospitality [16].

As a result of the transition from traditional didactic classroom models to active learning approaches, escape rooms began to be used as an innovative method for experiential, peer-group, game-based learning [17,18]. Fotaris and Mastoras [19] identified 68 reviewed publications on this subject, published in the years 2009–2019 in academic journals and conference materials. The authors of these papers generally emphasised that escape rooms are a very attractive and efficient form of teaching, offering the students pleasant experiences and significantly reducing the stress connected to learning. Research has proven that escape rooms generally positively influence the acquisition of knowledge about a given subject and the motivation to develop soft skills (teamwork, creativity, leadership, decision-making, critical thinking, and even conflict management skills).

However, there are decidedly fewer scientific publications that focus on leisure escape rooms, which are dramatically different from educational ones in many aspects (including their location, layout, organisation of the game, and participants' goals and experiences). Until now, a little over ten articles have been published on the widely understood recreational and touristic function of these attractions. These focus on several key subjects.

Their authors focus, first of all, on the motivations and experiences of escape room users. These are usually identified based on an analysis of the opinions posted on the TripAdvisor website [20–23], and, much more rarely, through real-life [24] or online surveys [25]. The results of these studies are generally consistent. Users of escape rooms are offered completely new, peak, unique, and fun experiences. The sources of these experiences derive, on the one hand, from solving difficult riddles and, on the other hand, from working in teams (social component). The main components of memorable game experiences comprise seven elements: puzzles and riddles, ambiance, atmosphere and decoration, theme, storyline, staff and game master, service, and value for money [23].

Knowing the actual expectations and opinions of escape room users is essential for continuous improvement of the offer and service quality and searching for new strategies for designing experiences. The supply problems are discussed in the second group of publications. Their authors prove that the key to success is to provide participants with a sense of novelty (authenticity); immersion, i.e., being deeply and fully immersed in the alternative world [26,27]; to offer an exciting game that is full of emotions; and to achieve a unique group (collective) flow experience [21,22]. What is important for the guests' satisfaction are innovative technological solutions, including special effects (visual and sound effects) [28], and a professional and tactful approach of the staff, particularly the game master. Failures in these areas are the main reasons for the dissatisfaction of customers [23]. The increasing number of operators and the growing expectations of seasoned players intensify market competition. This leads to the need to constantly search for and implement innovative solutions and to take well-thought-over, strategic actions. For example, the main challenge in the modern interpretation of the heritage of the area is the creation of the so-called smart escape room, which combines smart appliances, digital technologies (AR, VR, and DS), and the internet of things with the serious games concept (science based on games) and the mechanics of escape rooms [29–31]. On the other hand,

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Gündüz demonstrated the possibility of applying the Blue Ocean Strategy several times to escape from the Red Ocean by creating a new Blue Ocean where no competition exists [32].

The third trend in studies focuses on analysing the whole escape room sector instead of individual enterprises. This group includes studies on the functioning of escape rooms on a global scale [5,7] or in specific countries, such as Poland [6] or Spain [33]. Another approach consists in analysing the sector as part of a larger whole, e.g., the cultural offer of a city (based on the example of Krakow) [34] or the creative sector/creative tourism in Budapest [35]. On the one hand, these results document the unprecedented development of escape rooms in different parts of the world, and on the other hand they describe their close links to city tourism and recreation and the generation of millennials (who are dominant both among the owners and the clients). Nevertheless, another type of publication is the geographic study, which focuses on identifying the factors that affect the location of escape rooms and presenting their spatial development in a dynamic manner [6,33]. However, these analyses usually refer to short periods (several years) in the initial phase of the phenomenon. According to the author's best knowledge, so far, no works have been published that would present not only the development stage but also the stages of maturity and spectacular collapse of the escape room sector. In these terms, this paper is a pioneering publication.

3. Research Methodology

The research described here is longitudinal or evolutionary (data are collected at different points in time to make inferences about evolution, its causes, and its effects). This study covers the period from 2014 (the creation of the first escape room in Poland) until 2024. The article summarizes the research that its author has conducted for a decade.

The main statistical (quantitative) data were obtained from the database of the lockme.pl website and the report published by its owner [36]. The lockme.pl website is a globally unique, innovative platform that enables users to browse, book, and rate escape rooms. This includes approximately 95% of these facilities in Poland and is the most crucial channel for promoting and distributing this form of entertainment (apart from the websites of specific companies). The verification that was conducted confirmed that the source was reliable and credible. Information about the number of escape rooms in the whole country, in specific regions, and in the 10 largest cities has been obtained from the portal regularly, at 6-month intervals, since 2016.

Here, it should be strongly emphasised that the number of escape rooms does not prove the sector's size. It is only one of the indicators which is relatively available and easy to measure. From the economic point of view, data concerning the attendance (number of visitors) or the revenues would be more valuable. Unfortunately, nobody in the escape room sector is currently in possession of such data. Due to that, out of necessity, the simplest available indicators were used in the study.

In addition to quantitative data, the lockme.pl portal offers users detailed information on the location of each escape room in Poland (address data, location on the city map). The research in this area included a detailed analysis of the location of existing facilities (changes in the clustering/scattering, position of the geometrical centre, distance from the city centre, etc.). As a result, a series of data was obtained that documents the detailed course of the phenomenon both in qualitative and quantitative terms and in the spatial aspects.

The obtained information was complemented by a query, review, and critical analysis of the available academic and popular science publications (in the press, on websites, blogs, etc.) that focused on escape rooms in Poland. The paper that provided a detailed analysis of the course of the sector-wide public relations crisis in 2019 was particularly important [37].

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The results and conclusions from the author's previous research were also used. They concerned the following:

- Analysis of the offerings of the escape room sector in Poland in the initial period of its development (in 2014–2016) [6],
- The comprehensive characteristics of escape room customers—718 enthusiasts of this form of entertainment took part in an online survey conducted in April and May 2018, and their answers allowed for a description of the figure (profile) of a typical player and identification of the emotions accompanying the game [25],
- The role of escape rooms in niche cultural tourism as attractions for visitors, including urban cultural tourists and tourists with special interests (avid gamers) [1].

The Master's dissertations of the students of tourism and recreation at the University of Lodz were used to verify the analysed problems on the micro scale [38,39].

4. Results

4.1. Escape Rooms in Poland—The Market Introduction, Growth, and Maturity Stages

As mentioned above, the first real escape room was created in Japan in 2007. Several years later, this new form of entertainment spread to the USA, Canada, and Europe (Hungary and Switzerland). In 2011, the first escape room (Para Park) was opened in Budapest, and the first Polish escape room, Let Me Out in Wroclaw, launched at the beginning of 2014.

Escape rooms were successful throughout the world. The number of companies who conducted this type of activity in many countries was soaring; for example, in the USA, it increased from "about 2 dozen" in 2014 to more than 2350 in 2019. The industry experienced massive early growth: 317% in 2015, followed by 800% in 2016 [40]. However, the precise global number of escape room operators remains unknown: Villar Lama and García Martín (2021) estimated that there were 5.7–6.4 thousand such companies (however, not including Asia) [7], while Wójcik-Augustyniak and Multan gave the number of approx. 8000 [41].

Obviously, the enormous popularity of escape rooms has multiple, complex reasons. From the point of view of the demand, it should be emphasised that this type of offering perfectly matches the needs and expectations of contemporary, post-modernist societies, in particular, the generation of millennials. Escape rooms offer their clients an opportunity to escape from reality (escapism), to relax and to be transferred to another reality (including the world of computer games) while engaging all of the senses in a so-called emotional story involving the dramatization of the space, interactivity, active participation and the co-creation of the experiences of all participants [25]. This means transforming common products into unique experiences, typical of the experience economy [42]. Other, equally important elements were particularly beneficial supply-related factors (in particular in the second decade of the 21st century); no entry threshold/entry conditions (this also applied to legal ones in many countries) to start such business activity; low market saturation (low competition); easily copiable ideas and business concepts; relatively low costs of starting and conducting business activity; and high profitability regardless of the country [1,25].

In the Polish context, the following factors played the main role in stimulating the development of escape rooms:

- The pioneering effect (as the first rooms emerged shortly after their debut on the European market),
- High profitability, with low costs associated with starting and conducting business activity, and the absence of detailed legal regulations that would restrict such business,
- Introducing a series of pioneering, innovative solutions that improved the attractiveness and smooth operation of escape rooms:

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Using a variety of business models (micro-enterprises, franchises, company networks),

- The development of the market of companies that support escape rooms (IT, design, props...),
- The emergence and development of the Lockme website, a social media platform that connects escape room users and owners.

After the initial phase, when the effect of novelty was sufficient to stimulate demand, the growing expectations of customers and increasing competition resulted not only in a quick increase in the number of escape rooms, but also in a constant improvement in their quality, with companies striving to stand out by using original themes and by tailoring the offering to specific segments of the market, and with a continuous search for and implementation of innovations (not only technological ones). As a result, one may distinguish three generations of escape rooms:

- 1. Escape rooms that were created in adapted apartments, with the use of private resources, where the game was based on simple puzzles;
- 2. Rooms with sophisticated plots and meticulously designed interiors (preparation: 3 months, cost: approx. 3500 EUR /Estimated costs. All financial amounts provided in this article have been calculated based on the exchange rate of July 2024: 1 EUR = 4.3 PLN./);
- 3. Rooms with multiple-layer scenography, special effects, modern technological solutions, authentic props, and even real actors who played some scenes (preparation: 12–18 months, cost: from 4600–7000 EUR to 35,000–47,000 EUR) [1,36,37].

The available offer included a broad and diversified spectrum of services. Apart from "ordinary" escape rooms, specialised rooms were also available: for children, for adults (+18), mobile rooms (installed, for example, during company events), underwater rooms, rooms located outside (e.g., in the forest) or in a bus riding across the town. Special events addressed to the fans of this type of entertainment were organised: open-air mass escape events or the championship of Poland.

As far as the themes are concerned, Polish escape rooms did not differ significantly from similar facilities around the globe. In 2016, mystery and thriller rooms were dominant (28.1%), followed by horror-themed rooms (14.2%), as well as themes from literature and film (11%), and historical themes (10.5%). The main themes were usually motifs derived from global popular culture, while local events, characters, literature works, or films were used decidedly less often [6].

The development of escape rooms in Poland was very dynamic, if not explosive. At the end of 2014, there were 150 escape rooms in the country, while in 2016, their number increased to approximately 500. A historical record was noted in 2018: more than 1000 escape rooms operated by over 350 companies [36,37].

Initially, escape rooms were established mainly in the largest metropoles of Poland. However, the form of entertainment soon spread to medium-sized towns and popular tourist resorts. Despite that, the disproportions between big cities and small towns persisted until 2018, the peak of escape room development. Approximately 60% of all riddle rooms in the country were located in the 10 largest cities. The capital city, Warsaw, was always the leader (with 132 rooms in 2017), followed by Poznań (104 rooms in 2017), with either Kraków or Wrocław taking the third place (over 60). In the other cities, the number of escape rooms usually fluctuated between 30 and 60 (with a maximum number in 2017 or 2018). In 2016, there were usually 2–3 companies in the biggest cities that operated 5–6 rooms per 100 thousand inhabitants [6]. Two years later, this index reached nearly 11 escape rooms for 10 cities (from 7.4 in Warsaw to 19.4 in Poznan).

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Interestingly, in the first two years, a vast majority of escape rooms in Polish cities were located in the city centre [6]. Research has revealed that as many as 80% of the facilities were situated within a 2.5 km distance from the central point (the Old Town Market) (see Figures 1–4). There were only three exceptions to this rule: the largest metropolis—Warsaw (with escape rooms located within 5 km from the centre), Łódź (no market square, concentration along the main street, i.e., Piotrkowska), and Gdańsk (where the main cluster of escape rooms was shifted to the north, towards the centre of the whole Tri-City agglomeration). Such escape room location was determined by the demand (constant presence of residents and tourists, good transport accessibility) and the supply (heritage of the Communist era: unused apartments in historical townhouses, which could easily be adapted to create premises with an atmosphere).

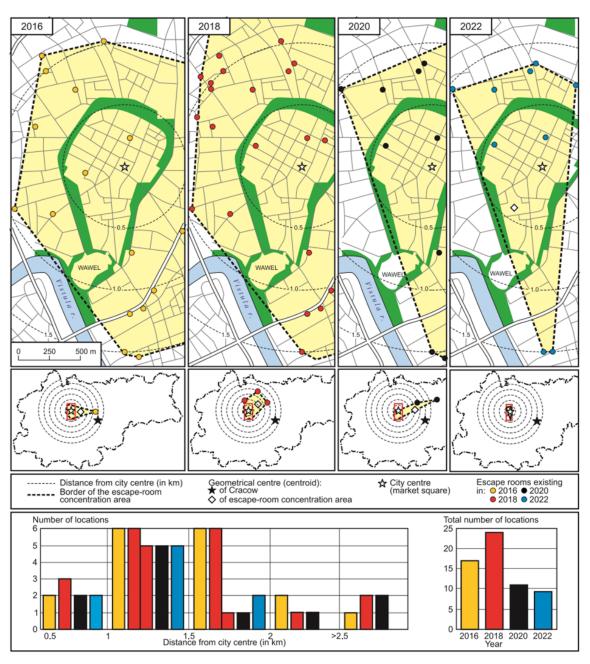


Figure 1. Escape rooms in Krakow in 2016–2022. Source: author.

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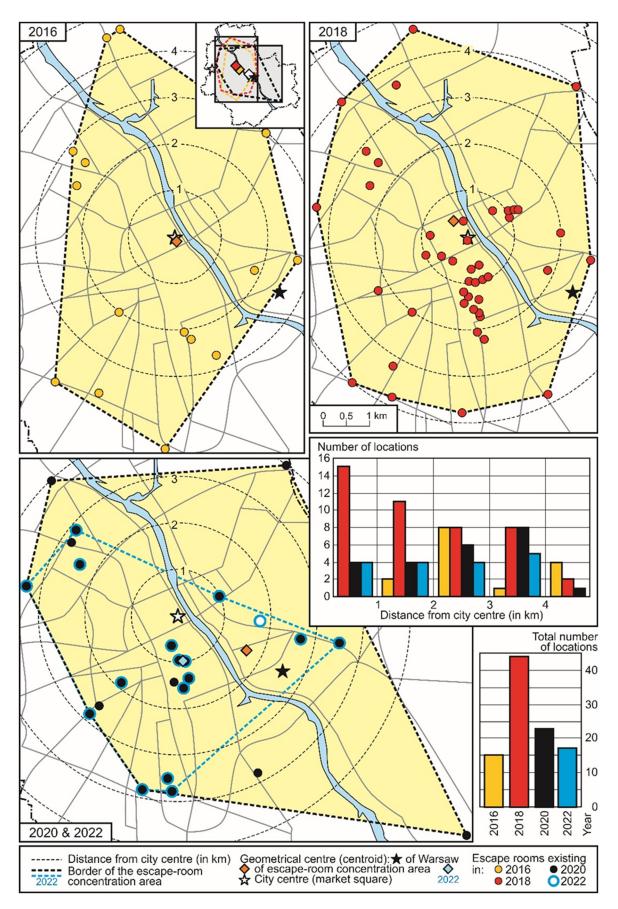


Figure 2. Escape rooms in Warsaw in 2016–2022. Source: author.

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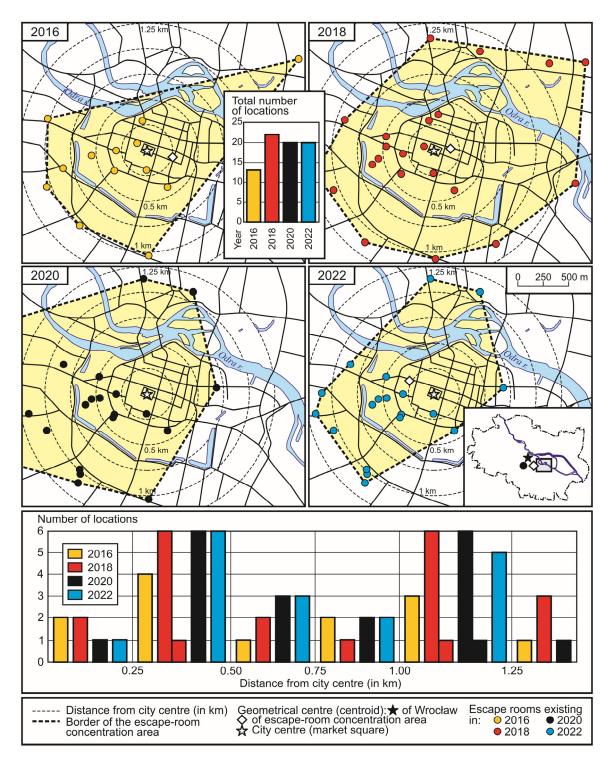


Figure 3. Escape rooms in Wrocław in 2016–2022. Source: author.

On the other hand, in the years 2017–2018, the development of escape rooms was driven by two parallel factors:

- Further saturation of the historic city centres with facilities,
- Establishing new riddle rooms further from the city centre, sometimes even on the outskirts of cities (Figures 1–4).

This dynamic growth of this sector would not have been possible without the soaring interest of clients. The demand for this exciting form of entertainment increased rapidly from one year to another. In 2017, approximately 4,133,000 visits to escape rooms were

noted in Poland, and the income of the whole sector was estimated at over 46.5 million EUR [36]. No data are available for 2018, but everything concludes that the results were even better.

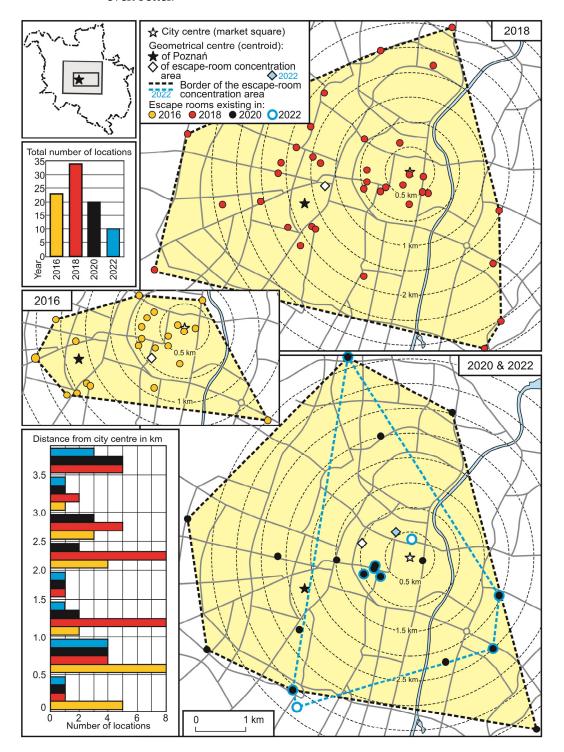


Figure 4. Escape rooms in Poznań in 2016–2022. Source: author.

All visitors of escape rooms at that time may be divided into three main groups:

 Residents of big cities who visit escape rooms in their place of residence during free time, including organised groups of schoolchildren and company employees during teambuilding events—this is the largest group of users;

Tourists who usually visit the encountered escape rooms spontaneously during a trip
(as an additional attraction that makes their stay at a destination even more exciting);

• Special interest tourists—escape room fans who travel to other cities to face the challenge of playing in unknown rooms—this is a niche segment of the market [1].

Unfortunately, a fundamental weakness of escape rooms as a spare time attraction is that they are consumed only once, hence the need to constantly search for new clients. This is why, as early as 2018, experts determined that the escape room market in Poland had reached a certain degree of saturation and that a noticeable decrease in the number of rooms should be expected. Even more so, as escape rooms are subject to normal wear. According to Nawrot, the average lifespan of an escape room in Łódź was a little over 29 months, although some rooms functioned successfully even for 53 months [38]. However, in general, after two years of operation, an escape room is naturally degraded: it is physically worn out and has been used by most of its potential clients. It needs a thorough renovation or change in the concept. Some rooms were also closed down. However, this natural process was disturbed by completely unexpected events.

4.2. Two "Black Swans"

In 16th century England, the term "black swan" was commonly used to refer to impossible events. When a species of black swan was discovered in Australia in the 17th century, the phrase lost its meaning, and it was not used for a long time. Only two centuries later, the British economist John Stuart Mill recalled the term. As it is understood today, the term has been popularised by Nassim Nicholas Taleb [43]. According to his theory, a black swan is a phenomenon considered so unlikely that it is practically impossible. However, it occurs at times, and when it does, it enormously influences reality.

Two completely unpredictable events proved to be the black swans in terms of escape rooms: the fire in Koszalin and the COVID-19 pandemic. These completely destroyed the escape room market in Poland.

4.2.1. The Tragic Fire in Koszalin

The good, even excellent, prospects for the further development of the Polish escape room market collapsed on 4 January 2019 when a fatal accident happened in the escape room of To Nie Pokój in Koszalin. A leak from a natural gas tank started a fire, in which five teenage girls who celebrated a birthday party died of smoke inhalation. The gamemaster who was trying to save them suffered from severe burns. A later inspection revealed many irregularities: a makeshift heating system, the presence of a source of open fire (candles) in the proximity of a gas tank, and the lack of evacuation possibilities: there was no spare doorknob, key, or safety button, and the window was grated and covered with a plasterboard.

The reports on the course of the tragic accident and the rescue action of the fire brigades were broadcast on all Polish media for several days. They were also transmitted in the news throughout the world. National authorities responded to the accident immediately. Upon their order, starting from 5 January, the fire brigades, construction supervision authorities, and often also the sanitary inspectorates and the police conducted detailed inspections of all (over 1000) escape rooms. In 90% of the facilities, major deficiencies were found concerning fire protection (e.g., the lack of fire extinguishers), the organisation of escape routes, and the lack of periodical inspections of the utility systems (gas and power supply and ventilation systems). As a result of the inspections, hundreds of fines were imposed, and orders were issued to close 69 escape rooms immediately.

It also turned out that, previously, the activity of escape rooms had not been regulated by any specific legislation. It was enough to register a business. As a result, an

ordinance was introduced quickly to define new, restrictive conditions for running this type of business.

In this way, the tragic fire in one room rapidly transformed into a reputational crisis for the whole sector. A reputational crisis results from a specific negative change at the company, which interrupts its standard operations and affects all the organisational processes, with a detrimental effect to the reputation and general perception of the enterprise (organisation, sector) by stakeholders. This always leads to some extent of damage to the company's image and a loss of trust, which is reflected in the overall business performance [44,45]. The escape room sector, which had earlier been praised for its creativity, popularisation of puzzle games, and creating attractions that united all generations and moved whole families away from their couches and TVs, suddenly became a synonym of threat and prioritising profits over the safety of participants. The course of the conflict, the dramatic shift in the context of media reports, and, in consequence, the development of the image crisis have been analysed in detail by Dusińska [37].

The main antagonists in the conflict were the government party, represented by the Prime Minister, the Minister of Internal Affairs and Administration, and the commanders-in-chief and spokespersons of specific public services such as the fire brigades, the police, and the prosecutor's office, and the escape room sector, informally represented by one of the founders of the lockme.pl website and individual escape room owners. The glaring disproportion of forces, resources, and professional preparation meant that the reputation of the dynamically developing sector was ruined in a matter of days.

The government party had a powerful propaganda machinery at its disposal. It could use the knowledge of experts and a broad spectrum of communication channels (social media, mainly Twitter, press conferences and briefings, government representatives appearing in traditional media, and announcements published on the websites of public institutions). The message that disseminated in the media focused on three simple pieces of information (without any nuance):

- Gross violations were found in Koszalin, and this was not an isolated event. Escape room owners prioritise profits over safety.
- The government immediately took the necessary actions, inspected all the rooms, detected multiple irregularities, punished the perpetrators, and closed down escape rooms that threatened the lives of players (especially children).
- The government's immediate, uncompromising response and the necessary changes implemented will prevent such tragedies in the future [37].

The dispersed escape room sector, plagued by controls, could not effectively respond to media attacks. Other factors contributing to the defeat included being unprepared to resolve a crisis and lacking media support and the necessary resources. As a result, the communication with the public was conducted in a chaotic, unsynchronised, and reactive way (defensive strategy) and, additionally, at a very limited scale. The used information channels were mainly low cost, including a statement signed by nearly 200 escape room owners from the whole country, which was sent by e-mail to the main media; answers, and explanations of sector representatives in response to media inquiries; and posts published in social media (Facebook, Instagram). The main points of the responses were as follows:

- The tragedy in Koszalin was a single, unfortunate accident.
- All companies should not be lumped together and treated similarly. Most professional escape rooms in Poland meet safety requirements and use a variety of security measures (marked evacuation routes, fire extinguishers, emergency keys, safety buttons, monitoring systems, etc.).

- So far, no detailed legislation has been dedicated to escape rooms that would regulate their safety, construction, and administration aspects, so one can hardly speak of any violations.

- Inspections are necessary, but they must be conducted in a considerate, systematic way and in the same way for all companies [37].

The position of the escape room representatives reached the audience only to a limited extent. Other initiatives to manage the crisis (such as establishing the Association of Escape Room Owners to contact the media and participate in future legislative works or creating a formal, uniform safety code for the whole sector) did not bring the expected results.

The escape room sector also adopted certain solutions to improve safety on its own initiative. Some of them included, among other things, full monitoring, complete contact with the game master, permanently open doors, a safety button (panic button), emergency lighting, the restriction of electrical currents within the player's range to only low voltage, and an emergency door-opening system. The staff were trained in emergency first aid. Promotional activities were also taken to neutralise the effects of negative media coverage [1].

Ultimately, many entities did not survive the government offensive, especially as it brought severe financial consequences. The costs of legalisation of changing the intended use of the premises (from residential to commercial) amounted to approx. 17,500 EUR [37]. This amount should be increased by the costs of modernisation and adapting the premises to the new requirements. In many cases, it proved impossible to interfere with the historical, protected structures of the buildings. Therefore, the company had to change the location to continue the activity, which generated further costs—moving, arranging the escape room in the new location, and promotion costs (informing clients about the new address). These expenses proved to be too high for many entrepreneurs, especially as their income had also decreased dramatically due, firstly, to the temporary closing of escape rooms and, secondly, as a result of the plummeting demand. A large group of clients who were bombarded with drastic images of the fire, the rescue action of the fire brigades, hostile comments of politicians, etc., considered this form of entertainment to be dangerous and decided to stop visiting escape rooms (permanently or for some time). As a result of the dramatic decrease in the number of players, the reduced income was insufficient to cover the spiking costs of business activity.

4.2.2. The COVID-19 Pandemic

The crisis in the escape room sector was caused by the tragic fire, which then smoothly transitioned into the crisis resulting from the COVID-19 pandemic. The pandemic reached Poland relatively late, as the first confirmed case of infection with the SARS-CoV-2 virus was detected as late as 4 March 2020. The first restrictions were introduced 10 days later when the government introduced the state of epidemic threat, which involved a drastic limitation of the everyday activities of citizens. This so-called first lockdown lasted from 14 March to 17 July 2020. Any activities related to mass forms of culture and entertainment were forbidden, as well as collective sports and recreation activities. Most companies and institutions were closed. Leaving home was limited only to necessary situations; children under 18 were not allowed to leave their homes without an adult guardian, and forests, parks, and beaches were closed. Some restrictions also applied to places of worship and shops (limited number of customers, special hours for senior citizens). Those infected and their families were completely isolated and quarantined (the length of quarantine varied). In April, the obligation to cover the mouth and nose in public spaces and to use disposable gloves was introduced. The restrictions were gradually removed only in May and June, in the process of so-called "four stages of 'defrosting' the economy".

In summer, the pandemic became noticeably less intense, so the restrictions were introduced regionally. Depending on the number of recorded cases, individual poviats were assigned to green, yellow, or red zones (with the most severe restrictions in the red zones). Another wave of the pandemic in Poland took place in October, and, by the end of the month, the whole country had become a red zone. The second lockdown covered the period 16 October 2020–15 May 2021. The maximum number of cases and deaths were recorded in November 2020. As a result, further restrictions were imposed, including low limits on people in shops or churches and even limits on guests during family gatherings at Christmas and on New Year's Day. Widespread vaccination against COVID-19 started at the end of December 2020. Nevertheless, some restrictions were maintained for 4.5 months after that. During the whole pandemic, multiple orders were supposed to ensure the proper sanitary regimen. Offices and companies were obliged to install disinfectant dispensers and to regularly disinfect the surfaces in which their customers were frequently in contact.

As it turned out, the tourism and recreation sector suffered the most from the pandemic. Lockdown usually meant shutting the company down for several weeks, and the restrictions, although gradually reduced, often did not allow them to resume business. For example, in escape rooms, where several people play in a small, confined space, it would be impossible to maintain a 1.5 m social distance or adhere to the limit of 1 person per 7 square meters of the surface. The mobility restrictions and the order to wear face masks also made using this form of entertainment significantly more difficult. As a result, escape rooms could not function normally for most of 2020 and 2021.

The so-called anti-crisis shield prepared by the government provided some form of support for the "frozen" enterprises. These solutions aimed to compensate for at least part of the damages caused by the lockdown. For example, entrepreneurs who noted revenues 40% lower than in 2019 had the right to receive subsidies on jobs (for three months), exemption from social security contributions, and could apply for a micro-loan. However, this state intervention proved insufficient for many small enterprises, which eventually had to be dissolved.

The escape room sector, which had already been in a difficult situation after the fire, was now confronted with extreme difficulties. The activities of companies fighting to survive during the pandemic focused on two challenges: preparing a substitution offer that would provide an ersatz experience of playing the real game in the riddle room and ensure at least minimum income (during the first period of hard lockdown) and securing the proper sanitary regimen that would make the participants feel safe (in the later period when the restrictions were loosened).

In striving to achieve the first goal, owners of escape rooms showed great invention and resourcefulness. This should come as no surprise because, as representatives of the creative sector, they had the necessary knowledge, skills, and modern technologies. Among the implemented actions, the following should be mentioned:

- Offering individual discount cards that enabled players to book the game in the distant future, with a guaranteed discount;
- Outdoor puzzle hunt, i.e., moving the game from an indoor setting to the open air,
- Organising contests and quizzes for puzzle enthusiasts;
- Preparing a wide array of additional products, gadgets, and souvenirs, including escape room board games, classical puzzle books, paragraph novels and gamebooks (stories that combine novels and graphic novels with puzzles and a board game, so that the reader may actually influence the plot), a series of absorbing card games based on the idea of escape rooms with a strong focus on the story aspect, and escape rooms in the form of T-shirts;
- Offering simple "print and play" kits to use at home;

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- Inviting players to an online treasure hunt (cheap online games);
- Introducing new services to the waiting rooms, e.g., a library of interesting board games to play before or after the visit;

- Enriching the offer for corporate clients: using escape rooms in promotional campaigns, during team-building trips and events, as gift vouchers, etc.

However, among all of the innovations forced by the pandemic, one has had the most promising chance to revolutionise the sector permanently: live-cam escape rooms. These do not have anything in common with virtual reality, as they are real rooms, operated by real people on real premises. Nevertheless, the game is based on streaming technology that enables collective voting and decisions about the next steps and actions of the person inside the given room. Another advantage of using video streaming may be, for example, the use of a professional actor who will animate the game from the start until the end and allow the possibility for players from the whole world to play together. The globalisation of escape rooms has become a fact, and adaptations of rooms for live-cam games will soon become a professional and generally available service (as with rooms with puzzle elements that are in a state of readiness to be connected and activated).

4.3. The Decline Stage

The direct consequences of the fire in Koszalin included the administrative decisions to close down the rooms that did not meet the safety standards. Indirect results were the financial difficulties of escape rooms that resulted from the increased operating costs, plummeting demand for this form of entertainment, and the generally hostile publicity surrounding the escape room sector. As a result, as many as 168 companies discontinued their activity [37]. On 25 June 2019, nearly 6 months after the tragedy, 565 riddle rooms operated by 188 companies were registered on the lockme.pl website as open, but 159 rooms were marked as undergoing modernisation, i.e., in fact, closed or awaiting permission for use. Other authors have provided similar data: as early as in January 2019, the number of escape rooms in Poland decreased by 24% (to 780) [38]. By the end of the year, this number fell by approximately 60%, and even 75% in some big cities [1].

This dramatic decrease in the number of escape rooms was noted first in the voivode-ships where the largest agglomerations are located, those that had recorded the most significant increases before. The most minor decrease occurred in eastern Poland, and, in two voivodeships, the number of escape rooms increased slightly. This resulted from two contradictory trends that occurred simultaneously: on the one hand, escape rooms were shut down on a mass scale (mainly in big cities), and, on the other hand, new ones were established (in smaller towns and in renowned tourist resorts such as Wisła, Zakopane, Krynica, Zamość, Iława, and Giżycko). However, the overall trend was negative (Figure 5).

For the ten largest metropoles, the crisis of 2019 meant closing down approximately half of the rooms (Figure 6). However, significant differences between specific cities were noticeable. The smallest decrease was noted in Wrocław (21.5%) and Gdańsk (25.6%). In Warsaw, Poznań, Krakow, Bydgoszcz, and Toruń, 40 to 50% of the rooms disappeared. Non-tourist locations suffered from the most significant reductions, including Katowice (-73.2%), Łódź (-73.6%), and Szczecin (-75%). The "saturation" ratio also diminished: there were 5.3 rooms per 100 000 inhabitants (from 2 in Łódź to 8.8 in Poznań), which meant a return to the level of 2016 [1].

The detailed spatial analysis demonstrated that escape rooms located in city centres were the first to be closed, as their modernisation would require high financial expenditures. It might even prove to be impossible due to the historic nature of the buildings. The distances between escape rooms increased, and the area where they were located often decreased. Differences between individual agglomerations became noticeable again. While

in non-tourist cities (Łódź) escape rooms have completely disappeared from the city centre, in business and tourist centres (Poznań, Warsaw) their number has decreased significantly. However, single facilities still function in city centres and areas that are frequently visited by tourists (Figures 1-4).

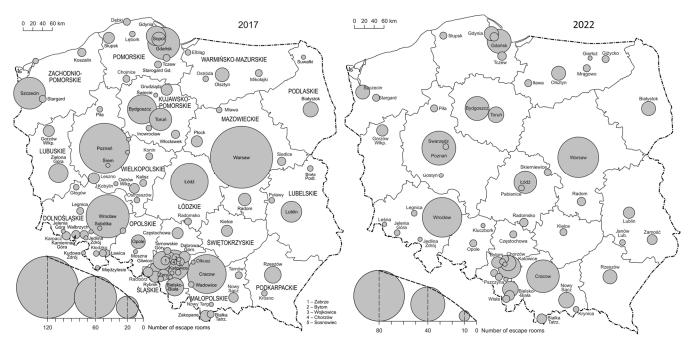


Figure 5. Escape rooms in Poland in 2017 and 2022. Source: author.

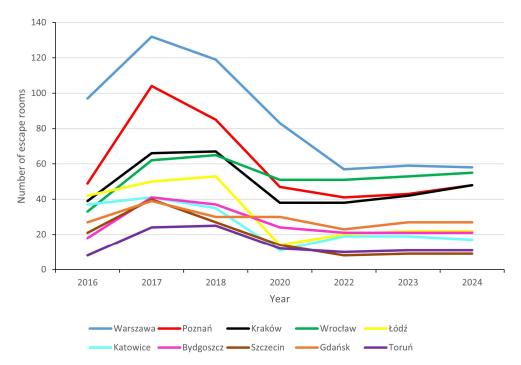


Figure 6. Escape rooms in Poland in 2016–2024 (due to lack of reliable data, the years 2019—post-fire period—and 2021—COVID-19 pandemic period—were omitted). Source: author.

The start of the COVID-19 pandemic led to the freezing of the economy and strict limitations on access to recreational offers, which worsened the situation of the escape room sector even more. However, it is impossible to analyse the detailed course of the crisis during two years of the pandemic, as no reliable data are available for that time. Official statistics include all registered companies, including those that suspended or permanently

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discontinued their operations but which never completed all formalities required for the dissolution. As a result, the published data are certainly overestimated.

More credible data are available only for 2022. In January, a total number of 484 escape rooms were operating in Poland, which was 531 fewer than three years before [37]. The general reduction consisted of the 44% decrease after the fire, followed by a further 14% as a result of the pandemic. The calculations made by the author of this study reveal that the crisis was likely even more severe. At the end of 2022, only 465 escape rooms were registered as operating in the lockme.pl database. This means a decrease by 54% in comparison to January 2019.

In the spatial aspect, the trend of escape rooms leaving Old Town districts, increasing their distance from the city centre, and scattering to other districts continued. Interestingly, peripheral escape rooms that had previously functioned in the suburbs also disappeared (Figures 1–4).

4.4. The Stage of Renewal (Revival)?

In the years 2023–2024, a stagnation, or, at best, a slight recovery, has been noted in the escape room market. The total number of rooms across the country has increased slightly (by 31, i.e., by approx. 6.7%), but the number has still not crossed the barrier of 500. It may seem a little comforting that this increase has been distributed relatively evenly: in 12 voivodeships, several new escape rooms were established (as much as nine, as in the Lesser Poland voivodeship), in two, the number remains unchanged, and it decreased only in two voivodeships (by as much as five, as in the Warmian-Masurian voivodeship).

The spatial concentration of escape rooms still persists. Nearly 2/3 of these facilities are situated in five voivodeships (Silesian—14.52%, Lesser Poland—12.90%, Masovian—12.50%, Lower Silesian—11.90%, and the Greater Poland voivodeship—10.48%). Among the 10 largest cities, only in 3 were a significant number of new rooms opened (10 in Krakow, 7 in Poznań, and 4 in Wrocław). In the other cities, the growth was symbolic, or remained at the reduced state of 2022 (Table 1). As a rule, the number of escape rooms remains lower by 50–60% compared with the peak of their popularity (2017/2018). The reconstruction of the escape room sector is developing very slowly. The cities that are the closest to the levels from before the crisis are Wrocław (–15.4%), Kraków (–28.4%), and Gdańsk (–30.8%). On the other hand, the current escape room offering in Szczecin is five times lower than that during the boom.

				1			O	,			
City -	Year							Decrease		Decrease (%)	
	2016	2017	2018	2020	2022	2023	2024	Max-Min	Max-2024	Max-Min	Max-2024
Warsaw	97	132	119	83	57	59	58	75	74	56.82	56.06
Poznań	49	104	85	47	41	43	48	63	56	60.58	53.85
Kraków	39	66	67	38	38	42	48	29	19	43.28	28.36
Wrocław	33	62	65	51	51	53	55	14	10	21.54	15.38
Łódź	42	50	53	14	20	22	22	33	31	62.26	58.49
Katowice	37	41	35	11	19	19	17	30	24	73.17	58.54
Bydgoszcz	18	41	37	24	21	21	21	20	20	48.78	48.78
Szczecin	21	40	27	14	8	9	9	32	31	80.00	77.50
Gdańsk	27	39	30	30	23	27	27	16	12	41.03	30.77
Toruń	8	24	25	12	10	11	11	14	13	58.33	54.17

Table 1. Number of escape rooms in the 10 largest cities of Poland in the years 2016–2024.

Note: The table contains data as of the end of the year, with the following exceptions: 2020—state as of 31 January (immediately before the outbreak of the COVID-19 pandemic)—and 2024—as of 31 May. The years 2019 and 2021 were omitted due to lack of reliable data. Maximum values are marked with green and minimum values with red. Source: author.

5. Discussion and Conclusions

The subject literature on the development of escape rooms in various countries is scarce, making a traditional discussion impossible. As a result, the presentation and comparison of the results of various research projects must be limited to only a few areas (issues) that were discussed in other publications.

It is doubtless that the emergence of escape rooms in Poland, and their unique dynamic growth, was not an isolated case or extraordinary phenomenon. In the second decade of the 21st century, this new form of entertainment became extremely popular in many countries [5,7], and the number of escape rooms increased exponentially. This growth was fostered by multiple factors (stimulants) both on the part of the demand and supply. The uniqueness of the Polish escape room market consists of the events that occurred later and contributed to its unprecedented collapse.

The course of this phenomenon presented in this study corresponds to the product life cycle. The theory developed by T. Levitt has been known in marketing since the mid-1960s. It has been frequently modified and adapted for tourist research: tourist areas [46,47] or new, specific touristic products [48,49]. Therefore, it may also be applied to an analysis of the development of escape rooms.

The introduction of escape rooms to the Polish market in 2014 was followed by a phase of rapid development that lasted until 2017 and which is typical for new, fashionable products that prove to be real market hits. The number of escape rooms increased explosively, spontaneously, and in an uncontrolled manner. The end of 2017 and the year 2018 witnessed the consolidation (saturation) stage and short-term stagnation. This period was characterised by a large number of functioning rooms, but also a significant decrease in development dynamics. At that time, the market had been saturated, and the peak culmination point was achieved. Later, in 2019, the sector declined dramatically due to a tragic fire. The decline was worsened by the outbreak of the COVID-19 pandemic (2020–2021). Since 2022, the market has somewhat stabilized at a level that is two-times lower than before the collapse. Despite efforts to revive the sector, it is difficult to say whether a real rejuvenation may take place (Figure 7) and it is possible that the escape room fad will never return.

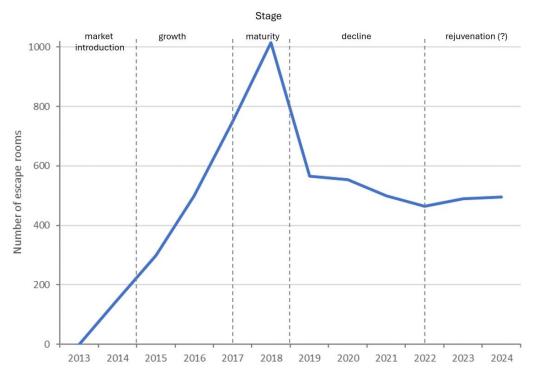


Figure 7. Number of escape rooms in Poland in 2013–2024. Source: author.

A similar life cycle was observed in the USA. According to the US Escape Room Industry Report, which has been published since 2014, the escape room sector in the US has undergone enormous early growth—by 317% in 2015 and then by 800% in 2016. However, by 2019, the increase fell to a level of only 2%. The sector shrank during the COVID-19 pandemic; in mid-2020, a 4.3% decrease was noted, which was followed by a decline of 7.5% in the subsequent 6 months until the beginning of 2021. By mid-2022, the escape room market had stabilized and remained stable until the end of 2023 [40]. In December 2023, there were 1950 escape room facilities, while in 2019, there were over 2350. This means that overall, the market decreased by only 17%. The most facilities were closed down in 2019 (21%) and 2020 (20%). In the years 2022–2023, the rate at which escape rooms were shut down slowed noticeably (approx. 10% each year) [40]. Thus, the crisis in American escape rooms seems to have been resolved. First, this crisis was decidedly less severe than in Poland, and, secondly, it resulted from objective, external reasons (i.e., the pandemic).

The situation of escape rooms in Poland is much more difficult, as their whole reputation was damaged after the fire in Koszalin. The blame for the tragedy was attributed to the whole sector, accusing all companies of acting ruthlessly in striving to maximise profits and of commonly neglecting safety principles (at the same time without mentioning the apparent neglect of the authorities, i.e., the absence of the relevant legal regulations). Paradoxically, the crisis also had some of the following positive effects: improving the recognisability of escape rooms (due to constant media coverage), the rapid improvement of safety, the elimination of companies that were only profit-oriented, and the integration of the sector around corrective measures [1]. Unfortunately, the related information did not effectively reach the general public, so they could not improve the situation in the sector.

Due to the irreversible (so far) collapse of the escape room market in Poland, the prognoses on their importance and role could not be fulfilled. Experts emphasised that this was a new, attractive, and valuable form of recreation and a good alternative to spending time in front of the TV or computer. They pointed to its inclusiveness and the support of social interactions (entertainment for whole families or groups of friends). They appreciated that escape rooms are a part of the creative industries [35] and enrich a city's widely understood cultural offering [34], which may be used not only by residents but also by temporary city users, such as students and tourists. In city tourism, escape rooms were supposed to become a new type of attraction for cultural tourists and special interest tourists that would enable them to discover the heritage and genius loci of the destination [1]. Experts also hoped that escape rooms would become an element of sustainable development and sustainable tourism. It was pointed out that such facilities may contribute to revitalizing degraded urban districts and disperse the tourist traffic by pulling tourists away from the central tourism district (CTD). This is the case of Budapest, where, thanks to the emergence of escape rooms and ruined pubs, the devastated former Jewish quarter of Erzsébetváros has become a centre of the alternative entertainment culture of youth that is popular among foreigners [23,35]. It was also assumed that, due to low initial capital, escape rooms may be an attractive form of self-employment and source of income for local communities, especially for young entrepreneurs (millennials) [33].

Unfortunately, due to the two black swans, the fulfilment of these forecasts has come under considerable doubt and may never be possible again. The nearest future will show whether escape rooms will remain an essential part of the sector of modern recreational services or prove to be an ephemeral fad that evokes strong but short-term interest in visitors. In the experience economy, customers are constantly seeking new experiences and emotions. This is proven, for example, by the recent growth of the popularity of so-called challenge arcades in the USA [40].

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In conclusion, one should state that the Polish escape room sector did not show sufficient resilience, understood as the ability to respond appropriately to shocks, disturbances, and turbulences (i.e., resistance to shock, ability to adapt to changing conditions, and to reconstruct and reorganise the main elements of the system). The reasons for such destructive sensitivity are complex. They include large fragmentation of the market (dominance of small companies) and focusing only on their own particular interests. As a result of these factors, and when confronted with an administrative and media attack, the escape room sector was unconsolidated and unable to defend itself successfully. The case study described here proves the need for paradoxical measures such as closer cooperation, even between companies that are competing on a daily basis (coopetition), as well as early planning and preparation to respond to potential, even rather unlikely, threats (implementing strategic crisis management). From the described case, we can also determine the role of legislators and city managers, as formal and legal regulations of escape room operations (taking into account safety rules) and their actual enforcement are necessary. Additionally, one should consider that this is a valuable and important industry for the diversification of a city's cultural and entertainment offerings. It is worth surrounding it with special care and support.

Due to the lack of publications on the spatial distribution of escape rooms in urban areas, it is impossible to conduct a comparative analysis of the locations of these facilities in various countries. The only available research results are those provided by Villar Lama [33]. They point to certain similarities but also differences in the development of this phenomenon in Poland and Spain.

From the very beginning of escape rooms in Poland, there has been a noticeable trend to locate them in the centres of large cities. This has been the result, among other things, of the specificity of cities in Central and Eastern Europe: a large supply of vacant, unused apartments in historical townhouses. High rents were not a barrier, as escape rooms have always been highly profitable.

The situation in western Europe was different, because city centres had already been fully developed and the rents were thus decidedly higher. This is why, in Spain, the first escape rooms were instead established outside of city centres, on the borders of the central districts, and, although less frequently, in peripheral districts of cities [33]. Their locations were determined by factors such as transport accessibility, purchase price/rent for premises, the proximity of tourist areas, the size of the land plot, and the absence of competitive facilities in the neighbourhood.

In Spain and Poland, after the big cities had been saturated, this new form of entertainment started to diffuse to medium towns and tourist resorts. According to Villar Lama, small start-up companies locate their facilities in small alleys in seaside resorts. At the same time, franchises and larger investments are situated along the avenues, promenades, and tourist zones [33].

Yet another model of escape-room location has been presented by Kubal and Pawlusiński [34]. This model is characteristic of Asian countries, where spaces in clubs and bars are adapted for riddle rooms. However, there are no detailed empirical studies on this topic.

In this situation, one can only hope that scientists from various corners of the globe will soon undertake similar research on the quantitative and spatial development of escape rooms. The obtained results will allow for more insightful comparisons and the development of regional models of the location and development of this sector. These issues seem to be intriguing and important directions for future studies.

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