Lock Me Again: The Influence of Escape Room Experiences on Visitors' Loyalty Intentions

Olga V. Anton and Alexander M. Pakhalov

Abstract Real-life escape rooms are relatively new entertainment facilities that quickly turned into popular tourist attractions. However, the escape room market has slowed down due to the overflow of the market with standard escape rooms that fail to create unique visitors' experiences. Thus, new experience design strategies with a focus both on stimulating return visits and on attracting new visitors are becoming a critical challenge for escape room providers. Our study aims to assess the impact of escape room experiences on visitors' satisfaction and loyalty intentions. We base our study on the escape room visitors' online survey followed by structural equation modeling (SEM) including confirmatory factor analysis (CFA) of the collected data. We measure visitors' experiences using a set of metrics combined into two dimensions: immersion and participation. We also include in the survey questions aimed to measure the novelty of the experience, visitors' satisfaction, and two loyalty intentions: intention to revisit and intention to recommend. Our findings reveal that the level of immersion directly affects intentions to revisit and to recommend. The perceived novelty of the experience significantly positively affects both loyalty intentions with the mediation role of satisfaction. These results show the importance of creating immersive and novel experiences that bring escape rooms closer to immersive theater.

Keywords Escape rooms · Visitor experiences · Loyalty intentions · Immersion · Participation · Novelty perception

JEL Classification M31 · L83 · Z33

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1   Introduction

Real-life escape rooms are relatively new entertainment locations, which recent
studies consider as promising attractions for urban tourism (Kolar, 2017; Pakhalov &
Rozhkova, 2020; Villar Lama & Martin, 2021). According to expert estimates, there
are more than 5000 escape room facilities in 75 countries (Ouariachi & Wim, 2020).
Many escape rooms are located in tourist destinations and attract significant atten-
tion from tourists, especially millennials (Bakhsheshi, 2019; Villar Lama, 2018).
Local authorities and institutions in various countries also recognize escape rooms
as elements of tourist infrastructure. In particular, Thessaloniki Tourism Organiza-
tion (a non-profit organization that constitutes the official tourism board of Thes-
saloniki, Greece) includes escape rooms in the official tourist guide (Thessaloniki
travel, 2021), while Promoting Private Sector Employment (development institution
in Pristina, Kosovo) supported the opening of the first escape room in the country
(PPSE, 2019).

The escape room market in Europe and America showed the most dynamic devel-
opment in 2015–2017 (Villar Lama & Martin, 2021). The most recent data show that
market dynamics have become significantly less positive. For example, in the USA,
from August 2020 to February 2021, the number of escape room facilities decreased
by 7.5% (Spira, 2021) excluding temporary closings of locations due to national or
local lockdowns. Despite the negative impact of COVID-19 on all segments of the
tourism and hospitality industry, we cannot explain the stagnation of the escape room
market only by the pandemic since the market growth noticeably slowed down even
before the COVID-19 (Spira, 2019; Stasiak, 2019).

Negative market trends can be explained by the overflow of the market with stan-
dard escape rooms that do not create a unique visitor experience (Gündüz, 2018;
Pakhalov & Rozhkova, 2020). The low variety of game designs reduces the attrac-
tiveness of the escape rooms for tourists who seek new and memorable experiences
(Jang & Feng, 2007; Lee & Crompton, 1992). Thus, new experience design strategies
are becoming a critical challenge for escape room providers (Pink et al., 2019). These
strategies should focus both on attracting new visitors and on stimulating return visits
by building visitors' loyalty.

Our study aims to assess the impact of escape room experiences on visitors'
satisfaction and loyalty intentions. Despite the extensive literature on the relation-
ship between experiences and loyalty for other tourist attractions, there is still no
similar study for escape rooms. Such research can provide practical insights both
for escape room providers and for other tourist attractions (museums, heritage sites,
etc.), which are increasingly using the mechanics of escape rooms in interactions
with their visitors (Back et al., 2019; Tzima et al., 2021).

2 Literature Review

The first real-life escape room was opened in Japan in 2007, and the first research paper on this topic appeared only eight years later (Nicholson, 2015). This pioneering research was based on a global survey of escape rooms' owners and managers. Nicholson's survey results allowed obtaining unique data about the audience of escape rooms, providers' marketing strategies, and even game design features. In the same year, another paper on escape rooms was published (Wiemker et al., 2015), which theoretically discussed the players' experience and motivation.

Surprisingly, the intense growth of the escape room market in the following years (since 2016) did not lead to a sufficient amount of empirical research on the topic. Even more surprisingly, educational escape rooms, which were inspired by recreational escape rooms (Veldkamp et al., 2020), have become an object of intense academic interest. Hundreds of published studies on educational escape rooms have allowed authors to conduct systematic reviews on this topic (Taraldsen et al., 2020; Veldkamp et al., 2020). However, both the research questions and the results obtained from studies based on educational escape rooms are usually not relevant to recreational escape rooms. Research papers with a focus on educational escape rooms never discuss customer experience management, advertising, loyalty, and other marketing issues. Given the aim and the scope of our research, the further literature review will cover research papers related to recreational escape rooms only.

There are two directions of research on recreational escape rooms: (1) the "supply-side" studies, which discusses specifics of business and marketing in the industry, (2) the "demand-side" studies, which focuses on experiences and emotions of escape room players. As a rule, the first research approach uses feedback from escape room owners or managers, while the second approach focuses on visitors' opinions, collected through a direct survey or a netnographic analysis. Very few researchers have combined the two outlined approaches. Among such researchers were Stasiak, who examined both demand and supply on the Polish escape rooms market (Stasiak, 2016, 2019), and Pakhalov & Rozhkova, who analyze the case of the leading Russian escape room provider "Claustrophobia" (Pakhalov & Rozhkova, 2020).

"Supply-side" studies usually follow Nicholson's research approach (Nicholson, 2015) by using a survey of escape rooms' representatives or by collecting secondary data about these businesses from online sources. As a result, various authors have obtained empirical evidence on escape room business in Poland (Stasiak, 2016), Spain (Villar Lama, 2018), Turkey (Gündüz, 2018), Iran (Bakhsheshi, 2019), and Russia (Pakhalov & Rozhkova, 2020). In 2021, Villar Lama and Martin also published a new study based on a cross-national survey of locations from 50 countries (Villar Lama & Martin, 2021). Most of these studies have concluded that a key success factor for escape room business is the experience design strategy, as well as some other factors such as the location of the facility. Several studies highlighted a weak differentiation of offerings on the escape room market (Gündüz, 2018; Pakhalov & Rozhkova, 2020) when the rooms' stories and tasks do not differ even between facilities in different countries (Villar Lama & Martin, 2021). The escape room
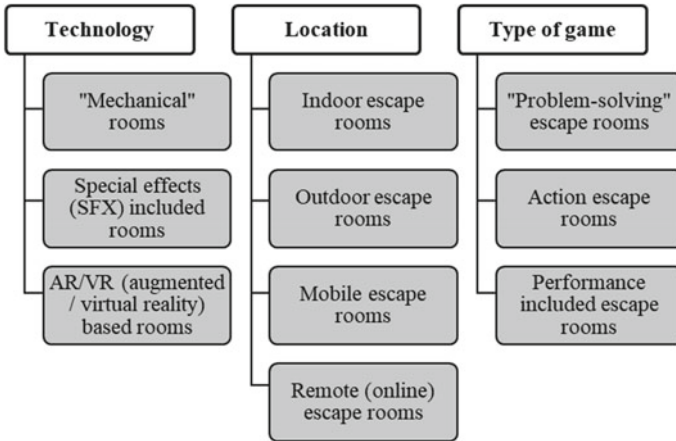
Fig. 1 Formats of escape rooms

providers try to solve this problem using the "blue ocean" strategy, changing their offerings by introducing new technologies, changing the location, or redesigning the game itself. Figure 1 summarizes alternative escape game designs that have appeared on the market in recent years.

"Demand-side" studies tend to focus on visitors' motivations, emotions, and experiences. The motivation to visit escape rooms is associated with the search for an unusual place to spend free time, novelty-seeking as well as curiosity the desire to escape from everyday problems (Stasiak, 2019). Visiting escape rooms is associated with a unique, fun experience (Kolar, 2017) that assumes involvement in the gameplay itself (Dilek & Dilek, 2018) and the group interactions with other players (Kolar & Čater, 2018). The use of new technologies can turn the room's atmosphere into a more meaningful aspect of the experience for visitors (Pakhalov & Rozhkova, 2020).

There are still no studies examining the loyalty intentions of escape rooms' visitors and its relationship with their experiences. On the one hand, visitors expect unique experiences from escape rooms and may perceive a particular escape room as a "one-off" experience, and therefore they may have no revisit intention even if they are satisfied. At the same time, exploratory qualitative research based on interviews with escape room visitors in Malaysia has shown that intention to revisit the escape room is often stimulated by the desire to improve a result (Pink et al., 2019). Moreover, many providers manage not one but several rooms with different themes and scenarios. Thus, the intention to revisit may be associated not with the same room, but with the same provider's room. In addition, it is reasonable to focus not only on revisit intention but also on intention to recommend, since other people's references and reviews can motivate new visitors, which is also important for escape room business (Bakhsheshi, 2019; Villar Lama, 2018).

Escape rooms are urban tourism attractions, and papers that study loyalty in tourism can be useful for our research. The object of earlier work in this direction was loyalty to tourist destinations (Oppermann, 1999; Petrick et al., 2001), while in the last decade more and more works have examined loyalty to specific tourist attractions: museums (Radder & Han, 2015), casinos (Baloglu et al., 2017), theme parks (Lee et al., 2020), etc. Most of these studies confirm the influence of experiences and satisfaction on loyalty intentions. However, the specifics of escape rooms as gamified tourist attractions require a separate empirical study, which we present in the following sections of this paper.

3 Research Hypothesis

Despite the lack of empirical studies on the relationship between the loyalty of escape room visitors and their experiences, we can put forward several hypotheses based on the analysis of evidence from other tourist attractions and previously identified insights and patterns of escape rooms visitors' behavior.

Some scholars suggest that satisfaction is the mediator through which experiences influence loyalty (Hosany & Witham, 2010; Quadri-Felitti & Fiore, 2013). Since escape rooms provide an escapist type of experience that involves distraction from reality through immersion in the story and active player participation, we assess experiences using two dimensions: level of participation and level of immersion (Pine & Gilmore, 1998). Pine & Gilmore's concept was previously applied in various empirical studies examining loyalty to hotels (Ali et al., 2014), museums (Radder & Han, 2015), and other tourist attractions. Thus, we propose the following hypotheses about the relationship of the two experience dimensions with the satisfaction of the escape room visitors.

Hypothesis H1a: The level of participation in the escape room positively influences visitor satisfaction.

Hypothesis H1b: The level of immersion in the escape room positively influences visitor satisfaction.

Novelty-seeking is a quite popular concept in tourist behavior studies, where this phenomenon is considered as one of the basic tourist motivations (Bello & Etzel, 1985). Novelty as part of the tourist experience influences positive emotions because it satisfies one of the key tourists' motivations (Mitas & Bastiaansen, 2018). Since the search for a new and unique kind of entertainment is a popular motivation for visiting escape rooms (Bakhsheshi, 2019; Kolar, 2017; Stasiak, 2019), we can assume that the perceived novelty of the experience has an impact on visitors' satisfaction.

Hypothesis H2: The perceived novelty of the escape room experience has a significant positive effect on satisfaction.

Despite the lack of quantitative assessments of the relationship between satisfaction and loyalty of escape room visitors in previous studies, we can expect that loyalty formation in the case of escape rooms can be similar to other urban tourist attractions. Many papers point in one way or another to a significant positive impact
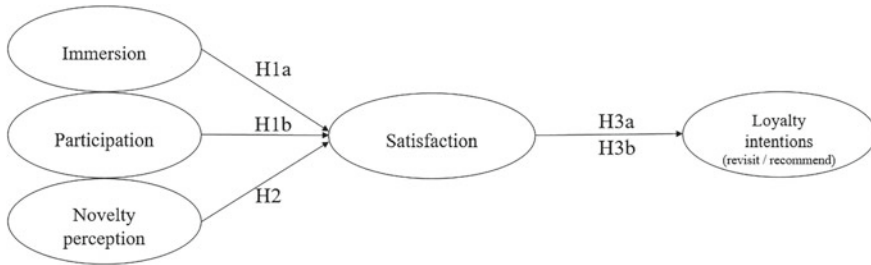
Fig. 2 Conceptual research model

of satisfaction on visitor loyalty for restaurants (Han & Ryu, 2009), theme parks (Ali et al., 2018), and heritage sites (Rasoolimanesh et al., 2021). We use two common separate intentions of visitor loyalty: revisit intention and recommendation intention (Ali et al., 2018; Yoon & Uysal, 2005).

Hypothesis H3a: The level of satisfaction positively influences the intention to revisit the escape room.

Hypothesis H3b: The level of satisfaction positively influences the intention to recommend the escape room.

Figure 2 shows our conceptual research model. We expect a positive influence of experiences on both loyalty intentions, and we expect satisfaction to play a mediation role in this influence.

4   Research Design and Sample

Empirical data to test hypotheses were collected using an online survey. The online survey questionnaire included questions to assess two dimensions of experience (participation and immersion), perceived novelty, satisfaction, and two loyalty intentions (to revisit and to recommend). The questionnaire also included several questions to analyze the sample structure.

We measure two experience dimensions using the statements presented in (Kao et al., 2008) but modified for the escape rooms. For perceived novelty, we use the adapted scale (Lee & Crompton, 1992), which includes four components of novelty: distraction from routine, relief from boredom, surprise (unpredictability), and excitement, to assess the sense of novelty experienced by visitors. Satisfaction is measured using the statement, "I'm really satisfied with this escape room". Revisit intention is measured based on two constructs: intention to revisit the same room, and intention to visit another room of the same provider. Intention to recommend is measured based on two parameters: intention to recommend to friends and intention to promote the escape room to other people (word-of-mouth intention). All the constructs (experiences, novelty, satisfaction, loyalty intentions) are measured using a classic five-point Likert scale, where 1 is for "strongly disagree" and 5 is for "strongly agree". We asked

Table 1 Sample structure (n = 195)

Sample characteristics		Frequency	(%)
Gender	Female	155	79.5
	Male	40	20.5
Male	18 or less	25	12.8
	18–24	100	51.3
	25–40	66	33.8
	41–55	4	2.1
Region	Moscow	174	89.2
	Saint Petersburg	6	3.1
	Other Russia's regions	11	5.6
	Other country	4	2.1
Number of escape rooms visited	1–3	24	12.3
	4–10	35	17.9
	More than 10	136	69.7

respondents to rate the last escape room they visited at the time of their participation in the study.

The survey of escape room visitors was conducted in February and March 2021 using Testograf.ru online survey platform. The link to the questionnaire was available in the thematic escape room communities in the VK (also known as VKontakte), the most popular social media platform in Russia. We received filled questionnaires from 216 respondents. Out of all the respondents, 195 had an experience of visiting real-life escape rooms. These respondents form our final sample (Table 1).

The observed sample imbalances have several explanations. A large share of the young audience matches the profile of a visitor to escape rooms, which are considered as attractions for generations Y and Z (Villar Lama, 2018). The prevalence of female respondents is consistent with both the results of previous studies (Kolar & Čater, 2018; Stasiak, 2019) and the demographic structure of the social media groups through which we distribute the survey link. Finally, the large number of respondents who regularly visit escape rooms can be explained by the existence of "escape rooms fans" (Bakhsheshi, 2019), who are deeply passionate about these attractions.

5 Results

We conduct the two-step data analysis for structural equation modeling using confirmatory factor analysis (CFA) to confirm the proposed model and a structural model (SEM) to test the hypothesized relationships between variables using IBM SPSS Amos 25.

Table 2 Item loadings (CFA)

Constructs and variables		Factor loadings
Novelty perception	During the game, I forgot about my everyday problems (NOVEL1)	0.682
	During the game, I was curious, I did not feel bored (NOVEL2)	0.666
	Unexpected events occurred during the game (NOVEL3)	0.725
	During the game, I emotionally reacted to the events and felt excitement (NOVEL4)	0.642
Participation	I actively participated in solving the escape room puzzles (PART1)	0.418
	I interacted with other team members in the escape room (PART2)	0.676
	I wanted to try all the possibilities of the escape room (PART3)	0.734
Immersion	My mood changed depending on the events of the escape room (IMMERS1)	0.688
	I didn't keep track of time while I was playing (IMMERS2)	0.601

The CFA and SEM models' fit was evaluated with common goodness-of-fit statistics (Byrne, 2001; Parry, 2017) including Chi-Square, Goodness of Fit (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and SRMR (Standardized Root Mean Square Residual). Based on recommended cut-off values (Parry, 2017), the CFA model's fit indices show a rather adequate fit: χ^2/df = 2.10 < 3, GFI = 0.94 > 0.90, CFI = 0.93 > 0.90, RMSEA = 0.07 < 0.08, SRMR = 0.05 < 0.08.

Table 2 shows the factor loadings resulting from the application of CFA at the first step. All item loadings are above 0.60 on one factor and below 0.30 on the other factors. Since the quality indices of the model meet the criteria, we conclude that the CFA allows us to confirm the proposed three-factor structure.

The structural equation model was tested at the second step. Results indicated that the model was a good fit for the data. According to the conceptual research model and hypothesized paths, we estimate two separate structure models: the "revisit model" to explain the motivation for a return visit, and the "recommend model" to explain the word-of-mouth motivation.

Goodness-of-fit statistics indicates that both "revisit" and "recommend" models are good fit to the data. For "revisit" model we have the following results: χ^2/df = 1.54 < 3, GFI = 0.94 > 0.90, CFI = 0.96 > 0.90, RMSEA = 0.05 < 0.08, SRMR = 0.05 < 0.08. For "recommend" model: χ^2/df = 1.91 < 3, GFI = 0.93 > 0.90, CFI = 0.95 > 0.90, RMSEA = 0.07 < 0.08, SRMR = 0.05 < 0.08.

Figure 3 presents the tested structural model for revisit intentions. The key dependent variable here ("Revisit intention") is a latent variable based on variables that
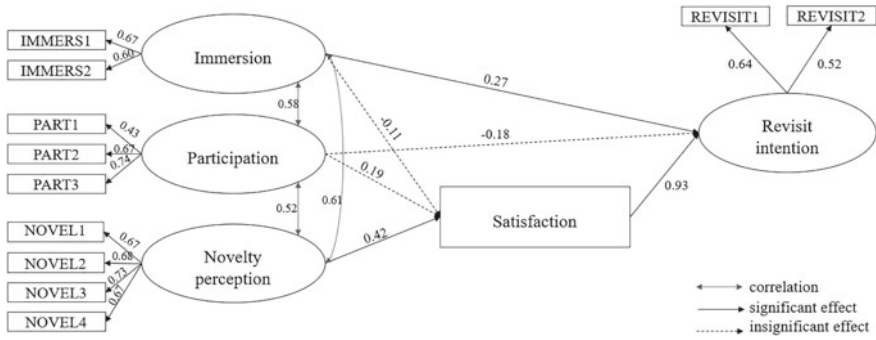
Fig. 3 The tested model for revisit intention with beta coefficients (p < 0.05; broken paths indicate insignificant relationships)

were used to evaluate intentions to revisit the same room (REVISIT1) and visit other rooms from the same provider (REVISIT2).

Test results of the "revisit model" do not support hypotheses 1a and 1b, which suggest a significant positive effect of participation and immersion on satisfaction. At the same time, the model allows us to accept hypothesis 2 on the positive effect of perceived novelty on satisfaction, as well as hypothesis 3a on the significant influence of satisfaction on the revisit intention. The observed positive correlation between participation and immersion may be because typical escapist experiences (Pine & Gilmore, 1999) assume high participation and high immersion. Experience dimensions correlate with perceived novelty because they reflect different aspects of the same gaming experience that can be both immersive and new for visitors. The model also shows that the level of immersion is directly related to the revisit intention. Thus, a high level of immersion in the room's atmosphere can directly stimulate visitors to return and relive the experience.

Figure 4 presents the tested structural model for revisit intentions. The key dependent variable here ("recommend intention") is a latent variable based on variables
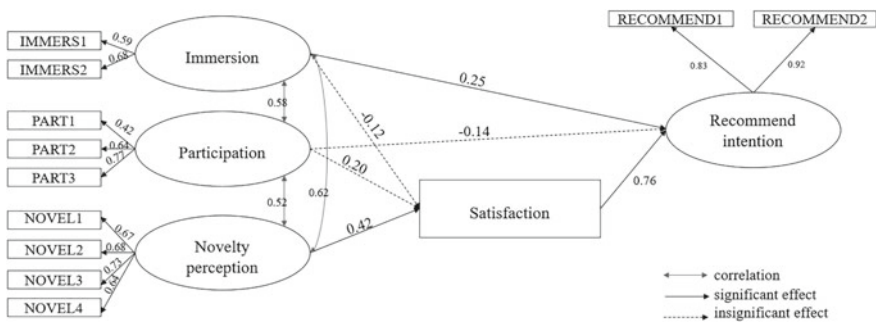

Fig. 4 The tested model for recommending intention with beta coefficients (p < 0.05; broken paths indicate insignificant relationships)

Table 3 Hypotheses testing

Hypotheses and proposed relations		Results
H1a	Participation -> Satisfaction	Rejected
H1b	Immersion -> Satisfaction	Rejected
H2	Novelty perception -> Satisfaction	Accepted
H3a	Satisfaction -> Revisit	Accepted
H3b	Satisfaction -> Recommend	Accepted

that were used to evaluate intentions to recommend to friends (RECOMMEND1) and to promote the escape room to other people (RECOMMEND2).

The "Recommend model" gives results similar to the first model. Hypotheses 1a and 1b, which suggested the effects of participation and immersion on satisfaction, were rejected. Hypothesis 2 in this model was confirmed: perceived novelty has a significant positive effect on satisfaction. Hypothesis 3b was also confirmed: satisfaction has a significant positive effect on the intention to recommend. This model showed a direct effect of the level of immersion on the intention to recommend.

Table 3 summarizes the test results for all the research hypotheses.

The level of immersion in escape rooms has a significant and direct positive effect on both loyalty intentions. However, we did not find a significant effect of participation on loyalty intentions. Structural models show two other significant relationships: perceived novelty with satisfaction and satisfaction with loyalty intentions, which supports the role of satisfaction as a mediator between novelty and loyalty.

6 Implications

The obtained empirical results allow us to propose the following applications for escape room providers.

1. Escape room's physical space and game design itself should include positive cues that allow visitors to distract from reality (escapist experiences). The room's design should create the atmosphere that is necessary to immerse the player in the story (legend) of the room. It is also important to eliminate negative cues that can distract the participant from the story of the room.

2. Development of new escape rooms (and redesign of existing ones) should focus on creating non-standard offerings. New and unexpected game experiences not only encourage players to visit this room again but also push a recommendation, which can attract new visitors through word-of-mouth channels. Marketing campaigns should also focus on the uniqueness and novelty of the experience.

3. Considering the perception of the particular escape room as a "one-time" experience, the creation of joint products and co-branding loyalty programs with the participation of several escape room providers seems to be a promising direction for market development.

4. Since revisits of the same escape room will inevitably lead to a drop in perceived novelty for visitors, providers need to periodically update an existing product (e.g., changing room scenarios or adding new puzzles) or open brand new thematic rooms in the same facilities.

5. To build visitors' loyalty intentions it is necessary to develop immersive formats, where experiences involve a high level of immersion. Providers can create these immersive experiences, for example, through the participation of actors (performance-included escape rooms).

7 Limitations and Further Research

Our study has some limitations that provide some suggestions for future research in the field. First, we cannot generalize the results to the entire population of escape room visitors, since we use a non-probability sampling. Our sample, as in previous studies, has a gender imbalance and geographically belongs mainly to the one largest Russian region (Moscow). Second, biases in experiences measurement are possible, since respondents did not report their experiences immediately after visiting the rooms. The remote format of escape rooms, which became widespread during the period of lockdowns associated with COVID-19, opens up opportunities for future experience-focused "onsite" research based on neuromarketing methods. For example, it is possible to conduct an eye-tracking study of visitors' responses to puzzles, decorations, and other elements of the game.

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