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Gamifying dark tourism - a study on how gamification could be used as a marketing tool in dark tourism museums.

Case: National museum "Chornobyl"

Abstract

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Title of the thesis
Gamifying dark tourism - a study on how gamification could be used as a marketing tool in dark tourism museums.
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Abstract
The thesis work studied the relationship between dark tourism and gamification by creating a concept of a marketing tool for the National Museum "Chornobyl". The objective of the study was to demystify dark tourism museums' marketing and find some conclusive information about whether gamification would be worth using in dark tourism museums.
The data for the thesis was collected by implementing a qualitative data collection method. The author has conducted a semi-structured interview with the case company's representative. The theoretical framework was developed based on gamification, marketing and dark tourism literature and internet sources.
With the groundwork achieved by studying gamification, the thesis presents an idea of the gamification tool for the National museum "Chornobyl". By conducting the research, the author helps dark tourism museums to widen their knowledge in gamification and its usage in the industry.

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Appendix 1. Open-ended questions for the interview with Anna Korolevska, the science director of the museum.

Acknowledgements

I would like to express deep sense of thanks to those, who contributed to the completion of this thesis:

1   Introduction

For thousands of years, humans have used games to learn. Gaming has endured and has become rooted in popular culture. Gamification can turn any nongame activity into a game. Gamification's consequences have been thoroughly researched in recent years. (Farber, 2015, 24.) Games influence culture, and they have changed humans' perception of the world. Whenever a human is challenged to something and achieves that goal, a neurotransmitter called dopamine is produced. Dopamine plays a role in how humans feel pleasure, therefore business owners started to use the power of games in business activities. With the help of the produced dopamine, consumers connect positive emotions to the interaction with brands. The core of gamification is to make customers know they are progressing and mastering in life with the help of a product or a service of a business. There is an opportunity to extend an original product and come into consumer's lives from a different perspective. (Zichermann 2014.)

Gamification is a combination of game mechanics with any area of life to educate and involve learners more thoroughly. Three aspects of games motivate and engage humans. The first aspect is objective, meaning that players must have a goal to achieve while playing. Games should show players' accomplishments, for example, by including scores, badges, or leader boards. These games help to see the impact of an individual in the real world. The second motivation factor of games is choices. Choices in games are made by players and are necessary to follow the process of gaming. Whether choices in games will have consequences or ratchet up the outcome – the main aim is to engage players. The third aspect of motivation is the people with whom the game is played. The common goal of winning or just enjoying the game is bringing the players together. Games create a Magic Circle, where players can unify and create a space full of trust in each other. (Houde 2017.)

Gamification can be widely used in different businesses. For example, gamification is broadly used in marketing activities. In this thesis, gamification is implemented as one of the marketing tools which can help dark tourism museums to attract and keep clientele. For Foley and Lennon (2000,11), the term dark tourism relates primarily to the presentation and consumption (by visitors) of real and commodified death and disaster sites; a broad definition later refined by their statement that dark tourism is an indication of post-modernity. Dark tourism is about growing personally, about gaining a better understanding of the past and future. The experience of "being there" leaves an indelible mark. (Yuill 2003.) The combination of personal growth visitors of dark tourism museums would like to receive, and an aspect of motivation in a game, provides a high opportunity of learning.

The goal of the research is to offer a marketing tool for dark tourism museums based on the case company. The topic is worth studying since marketing in dark tourism companies is complex. By conducting the research, the author helps dark tourism museums to widen their knowledge in gamification and its usage. Likewise, marketers who specialize in gamification can be interested in the research to get an example of applying it to dark tourism companies.

1.1 Reasons for choosing the topic

I have chosen this research topic by combining an area of interest and an area of knowledge that is connected to my future professional life. I was challenged into making the studying subject beneficial for dark tourism museums by offering a marketing tool based on gamification that is not widely used in dark tourism companies. I questioned whether a customer would remember a visit to a museum that had an interactive part, or a passive visit simply looking at exhibits. After watching a "TED talks" video about gamification, I got engaged with the idea of creating a correlation between dark tourism and using of gamification as a marketing   tool.
Considering the intangibility of the tourism sector, gamification could help to make dark tourism museums more educational, interactive, and engaging. Gamification could additionally be used to attract customers to museums after the COVID-19 pandemic.

1.2 Objectives of the study

The main objective of this paper is to demystify dark tourism museums' marketing and find some conclusive information about whether gamification would be worth using in dark tourism museums. The thesis will study the current marketing strategy of the National museum "Chornobyl" and offer a tool of gamification to help the museum improve consumer engagement in learning and increase brand awareness. The thesis will focus on creating a marketing idea based on gamification, for example, a game, contest, or gamifying the website of the company.

1.3 Research questions

From the primary research conducted by the author, the investigation of gamification as a marketing tool in dark tourism sites is limited. Therefore, the main research question of the study is the same as the topic of the thesis – How can a dark tourism museum utilize gamification for its marketing activities?

The thesis will as well answer three sub-questions:

- What is gamification as a marketing tool?
- How does gamification work and what advantages/disadvantages it brings?
- How to attract new customers by employing gamification in dark tourism museums?

Based on the research questions, a qualitative research method was used. The essential features of qualitative research are the correct choice of appropriate methods and theories; the researcher's reflections on their research as part of the information creation process; the identification and interpretation of multiple viewpoints (Flick 2006).

1.4 Research methods

The analysis is conducted by carrying out a qualitative research method of data collection because the author aims at seeking a deeper understanding of the subject. Qualitative research is an umbrella term for a wide variety of approaches to and methods for the study of social life. The data collected and analysed primarily, but not exclusively, consist of textual materials. (Saldana 2011, 4.)

The primary data collection method is a semi-structured interview. This data collection method was used to get a deeper level of understanding of the company, its values, and needs for the new marketing tool. The secondary method of data collection used is desk research. Desk research is gathering data that has been already collected by someone else. This method of data collection gives the researcher a variety of information about the subject and provides knowledge that could not have been gathered by the primary research. Secondary data can cover a broad variety of empirical forms, including data collected from statistical evaluations, documentary research, and the findings of large-scale datasets. (Smith 2006, 4.)

After the primary and secondary data is gathered, the data analysis should be conducted. The purpose of data analysis is to reveal to the readers of the thesis what has been discovered (Saldana 2011, 89). The only main data collection tool in this thesis is an interview with a representative of the National Museum "Chornobyl", therefore the data obtained is presented as a case study.

1.5 Delimitations of the research

It is essential to define delimitations for this research since the topic can be beneficial for dark tourism museums all over the world. The research will not be creating a brand-new marketing strategy for dark tourism museums since it would be a challenging task. The author of the thesis will be offering a marketing tool for the National Museum "Chornobyl". The thesis will not concentrate on marketing tools other than gamification. Consequently,

the research will not cover the advantages and disadvantages of gamification in different museums' activities other than in marketing. Due to the COVID-19 pandemic, no customer feedback on the thesis topic will be collected, therefore no customers' opinions will be considered. Thus, the success of the marketing tool usage cannot be measured. Likewise, the author will not include any budgeting-related information, meaning the cost of the new marketing tool's launch.

2 Marketing and gamification

2.1 Marketing of tourism services

Definitions of marketing tend to fall into two principal camps: for some people, the central focus is on processes and/or systems, while for others it is on philosophy and/or the consumer (Fyall & Garrod 2005, 26). The definition above argues that marketing can be interpreted in two ways. The first one states that marketing is based strictly on science. On the other hand, Morgan (1996) argues that marketing is about customers, how to find them, how to satisfy them, and how to keep them. Organisations would not exist without customers. (Morgan 1996, 13.)

Marketing is more vital when a business is based on service provision, rather than selling goods and products. Since tourism services are intangible, inseparable, and perishable they are harder to market. Stating a truism, tourism marketing is about selling dreams, and tourism itself is about illusion or the creation of an atmosphere. It is impossible to try out a tour or a holiday in a 5-star hotel before purchasing them. The first impression of the tourism business is its marketing material. However, potential customers rarely engage with advertisements. Customers engage with marketing materials if an advertisement is unusual and catches attention, or if it is relevant to the customer at the exact point of time. (Morgan & Pritchard 2000, 10.) As an example, gamified marketing tools usually catch customers' attention (Weber 2014).

2.2 Definition of gamification

Gamification is the application of the game elements in non-gaming activities, it is usually used to motivate and influence behaviour of people. In the business context, gamification can bring benefits like increased brand loyalty, better customer relationships, and customer engagement. (Educause 2011.)

Although some businesses are still focused on their social media strategies, others have likewise begun to incorporate gaming into their marketing plans to attract consumers and staff in new ways and foster a lively community. Recent technology advances have accelerated emerging trends, as shown by psychology and behavioural science studies. (Weber 2014.)

2.3 Gamification as a marketing tool

Marketing is becoming more engaging due to the attractiveness of using gamification in marketing strategies. The customer experience is an essential tool to catch the attention of

potential buyers. The Wall Street Journal (Burris 2014) explained gamification in marketing as *a "fast-moving hard trend of using advanced simulations and skill-based learning systems that are self-diagnostic, interactive, game-like and competitive–all focused on giving the user an immersive experience".*

Plenty of gamification marketing tool examples can be found online. As an example, "Spin-To-Win" wheels are widespread within online shops. It is an easy and practical tool that can be customised by companies' representatives and efficiently engage new and existing consumers.

2.4   The Elemental Tetrad Model

This thesis will rely on theoretical literature within the area of the subject, meaning add-on-games, game-based learning, and situating "the gamified museum" (Madsen 2018). These theories will help the author to get a better understanding of the suitable gamification tool for the National museum "Chornobyl". As it has been said, gamification is about encouraging value-creation for a customer such as create their story, play at their own time, and make purchase decisions (Hofacker et al. 2016).

As a base model for describing what and how the author wants to achieve, the Elemental Tetrad Model is used (Figure 1). The Elemental Tetrad is a way to balance the parts of a game to create a great experience for gamers. The model is made up of four fundamental design characteristics that relate to each other to construct a cognitive and affective environment centred on a game's theme. To build player immersion and commitment, all four elements, according to Schell (2008), must be carefully aligned. The first element, the story or narrative structure, gives a game sense and brings value to the viewing experience. The second element, mechanics, relates to the technical elements of games. The aesthetics give a game a sense of meaning and help it create a plot. While other senses can be used in certain games, an emphasis on visual imagery and presentation is crucial for providing an interactive environment. Finally, technology refers to how the instrument affects the game interface. (Hofacker et al. 2016.)
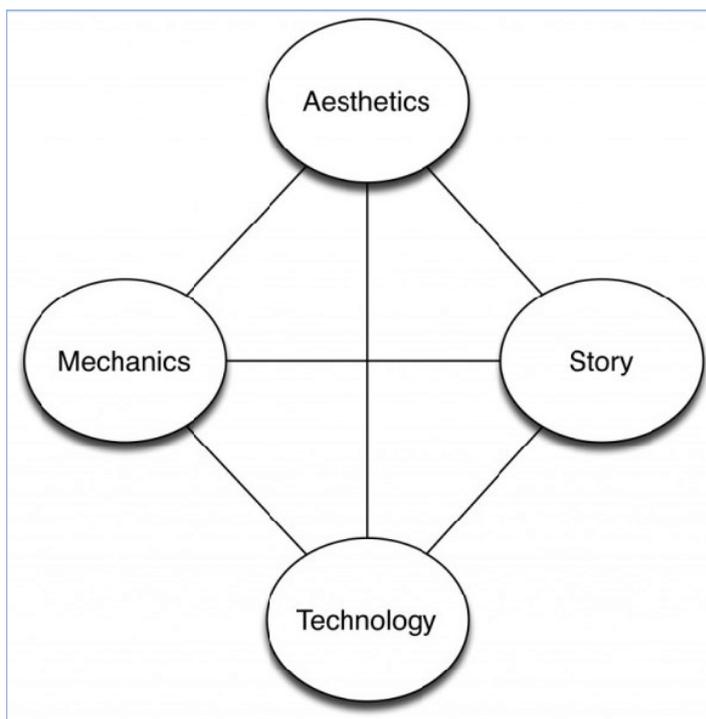
Figure 1. The Elemental Tetrad Model. (Schell 2008)

2.5 Pyramid of gamification elements

Similarly, the author will use the pyramid of gamification elements by Kevin Werbach (Figure 2) to strengthen the Elemental Tetrad model. Three elements exist that should be put together in the gamification design. They are dynamics, mechanics, and components. These components help researchers to create a more compelling gamification project, even though it is almost impossible to employ them within any one category. The base of the pyramid are components, they are real or tangible manifestations of abstract concepts represented by special instantiations of dynamics and mechanics, such as achievements, collections, social graphs, levels, and badges. The 6 elements of gamification have been previously discussed by the author and will be taken into consideration. The next game element in the hierarchy is mechanics. Mechanics in games include various processes to move the game forward from one state to another, such as obstacles, competition, collaboration, feedback, and resource acquisition. These fundamental elements are the driving forces that keep the player engaged in the game. The top of the pyramid is dynamics, it is a structure that smooths out the experience of a game. Dynamics consists of constraints, emotions, narrative, progression, and social elements. These elements are human responses and needs to a game. (Werbach & Hunter 2012, 82.)

The pyramid is analogous to the Elemental Tetrad Model and proves that the author builds the gamified marketing tool based on a common strategy of gamification elements.
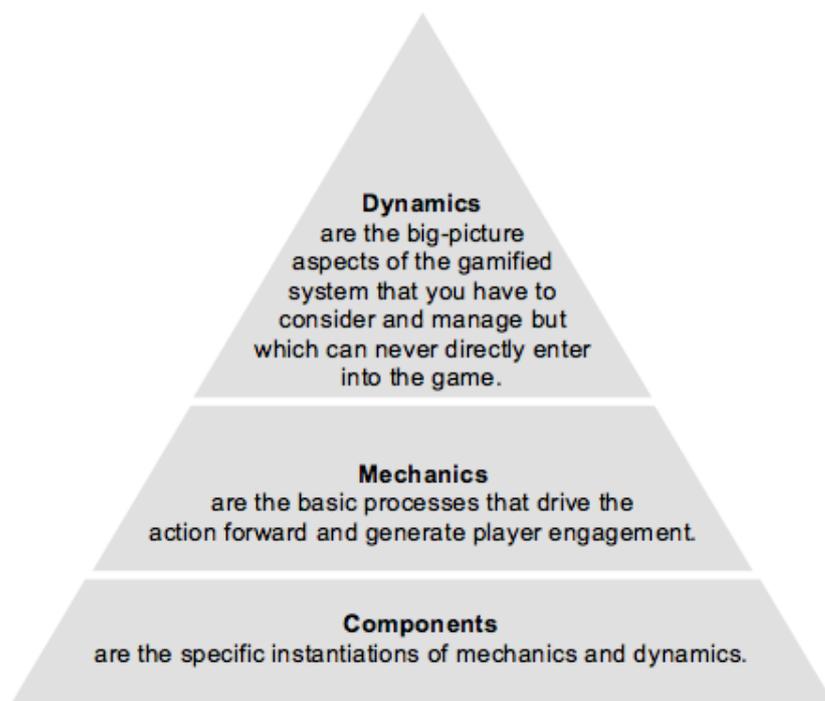
Figure 2. The Game Element Hierarchy. (Werbach & Hunter 2012, 82)

2.6 Benefits of gamification in marketing

Gamification can be applied in hospitality in two ways: motivating employees and engaging customers. Gamification, when used properly, is a powerful tool for achieving goals (Weber 2014). There are several main advantages of using gamification as a marketing tool. As mentioned above, the major advantage is customer engagement. It is as well considered as the goal of this research, increasing customer engagement in the National museum "Chornobyl". Marketing tools based on gamification catch attention and attract users by their uniqueness. Gamified marketing likewise gives consumers the impression that they are in control since they have an option of interacting with a company's content in a variety of ways. This brings a new level of fun and enthusiasm for customers to stay loyal to a brand. (Furdu, Tomozei & Köse 2017.) Gamification directs customers toward greater motivation. The gaming process creates participation in the process itself and the game mentality begins. (Conaway & Garay 2014.)

For museums particularly, a more engaging learning environment could be another visible advantage. The gratification method creates an effective, informal learning atmosphere in which customers can learn and explore topics they are interested in (Furdu, Tomozei & Köse 2017).

The third benefit of gamification is increased brand awareness. By launching a gamified marketing tool, companies are expected to gain a competitive advantage because of word-of-mouth's positive effect. (Gillett, 2020.)

Conversion rates, meaning the percentage of online users who take action on a company's website, are expected to go up since the consumers become highly motivated. Games are fun, and therefore they encourage customers to interact with a company's content more. (Kankanhalli, Taher, Cavusoglu & Hyun Kim 2012.)

However, it should be considered by managers that to promote a lively and inspired atmosphere, gamification should complement the business culture and individual approaches must be created. The efficacy of gamification is influenced by both intrinsic and extrinsic motivation. (Weber 2014.)

2.7 Possible disadvantages of gamification in marketing

The first major possible disadvantage of setting up a gamified tool for a company is quality. Customers can tell when a website has not been updated since the last millennium. The same statement applies to video games. As an example, the new marketing tool of a company is a game, it is vital to provide customers with a neat game design, understandable controls, and an unforgettable experience. (Richardson Sales Performance, 2013.)

Budget and resources are a subset of quality, but they are crucial to mention. Many businesses fail when it comes to the actual launch of a gamified tool. The concept creation and the actual game production differ in the resources' usage and budget. In many cases, companies must outsource employees to receive a worthwhile product, which truly catches the attention of customers. (Richardson Sales Performance, 2013.)

Possible drawbacks of gamification in marketing could as well be connected to customers. The marketing tool could merely appear to be boring for customers. The gamified tool's nature and content environment must be carefully considered to make the content as neutral as possible by not seeming irrelevant or dull (Furdu, Tomozei & Köse 2017). As well, if the tool does not match the target audience, it will be a failure.

For dark tourism companies, it is as well vital to imply gamification in an ethical manner to not hurt feelings of customers. Any new marketing materials would necessitate a critical mindset and ethical consideration. Instead of confronting consumers with sadness and suffering, the experience should be built to help them. Designers must try to elicit empathy and positivity. (Fisher & Bolter 2018.)

3   Dark tourism outline

3.1   Definition of dark tourism

Recalling the gladiatorial battles in Ancient Rome and public executions in the 17th century in London, individuals have always been attracted to frightening shows. However, in the modern world, dark tourism has received an even stronger impetus to development in the face of pop culture. Horror movies, mystical comics, or science fiction books attract a vast audience, which indicates that people still enjoy tourism experiences related to death. (Kopylova 2016.) Visiting sites that are connected to death in some ways is a significant part of tourist experiences in many societies (Lennon & Foley 2000, 4).

The concept of dark tourism has become widespread after the publication of the book "Dark Tourism" in 2000, written by Malcolm Foley and John Lennon, professors at the University of Scotland in Glasgow (Kopylova 2016). Many definitions of the dark tourism phenomena were developed after the concept has been created. The author finds that the definition by Stone (2006) is the most understandable and straightforward. Dark tourism is described as *"the act of travel to sites associated with death, suffering and the seemingly macabre"* (Stone 2006, 146). Regardless of the dark tourism phenomena appearing in early 2000, many researchers are still studying the topic of the attraction of tourists to visit dark tourism sites (Kopylova 2016).

3.2   Motivation factors of visiting dark tourism sites

The motivation of tourists to visit dark tourism sites is a critical topic in the growth of dark tourism. A dark tourist's motivation can be described as a person's motivation to fulfill recreational needs, which is based on their physiological and psychological characteristics, beliefs, values, and culture. (Kopylova 2016.)

Research about dark tourism has already identified a variety of motives for visiting dark tourism sites. Some individuals wish to indulge their curiosity of thanatological concerns in a socially acceptable manner. However, the other part of the individuals would like to be entertained. (White & Frew 2013, 3.) Lennon and Foley (2000) believe that global communication technologies are one of the main factors for the existence of dark tourism. They play an important role in creating an initial interest in dark destinations (Lennon & Foley 2000). In the field of dark tourism, the media plays a significant part. Tragic incidents are recorded by the media all over the world. The media's coverage of horrific and terrible incidents acts as a stimulant for tourism flows. Besides, the media has the potential to *"bring dark tourism sites to public consciousness"*. (Yull 2003.)

According to Yull (2003), dark tourist motives could include receiving entertainment, such as providing a thrill, a novel experience, or an adventure. Furthermore, tourists visiting dark tourism sites may be motivated by the remembrance of the victims and the atrocities that occurred, as well as curiosity. Moreover, education can be a valid motivation for visiting a museum about death and misery. Furthermore, according to Niemelä (2010), emotional involvement may as well play a role in the motivations of dark tourists. For instance, visitors may have a personal link to the atrocities. Poria, Reichel, and Biran (2006) have added two more motivations to the mix: visitors may visit a dark site because it is well-known or because they believe it is historically significant. (Yull 2003; Niemelä 2010; Poria, Reichel & Biran 2006, 322.)

Therefore, it can be concluded that the target groups of dark tourism sites can be extremely wide. This statement complicates research on dark tourism phenomena, but on the other hand, it shows a high potential of dark tourism, since there are many reasons why tourists can visit dark sites.

3.3   Dark tourism spectrum and products

To become more familiar with dark tourism sites and allocate dark tourism museums, the dark tourism spectrum will be used (Figure 3). With the help of this framework, Stone (2006) organises dark tourism sites into groups called the seven dark suppliers. There is a difference between sites associated with death and suffering and sites that are of death and suffering. The range from the darkest to the lightest products is characterized by dominating design features, for instance, whether a product has an educational or commercial ethic, researchers may be able to locate and typify a product. Based on the spectrum theory, Stone had created seven dark suppliers, meaning dark tourism products. This section of the report was written to understand dark tourism sites on a deeper level and to locate the case company on the dark tourism spectrum.
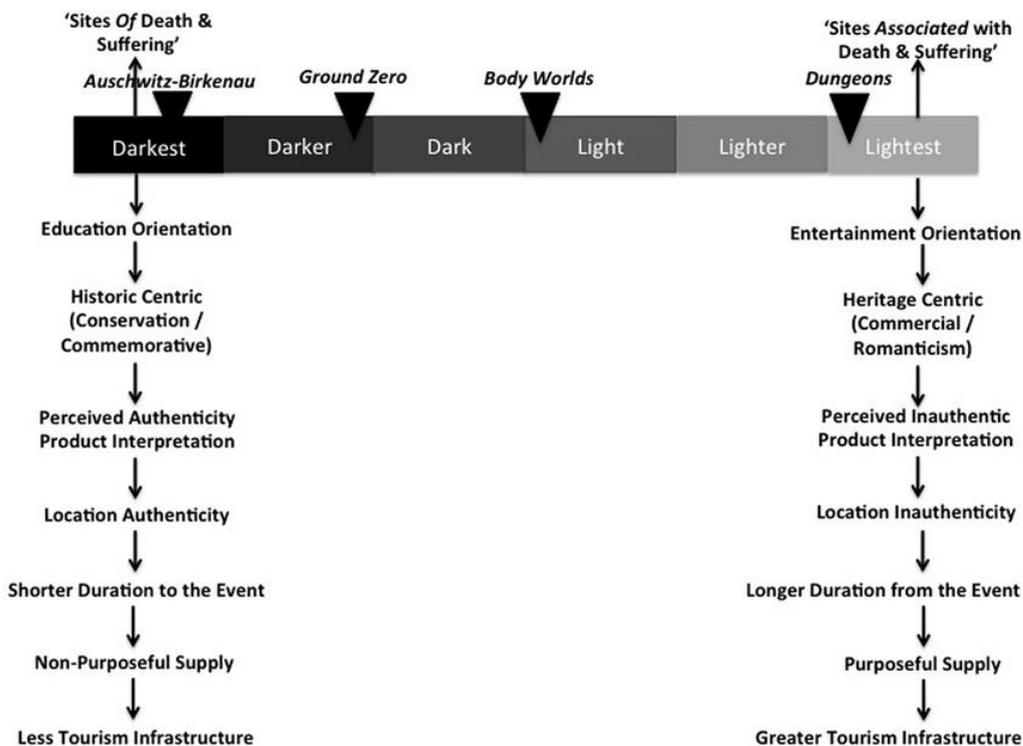
Figure 3. A dark tourism spectrum. (Stone 2006)

The first dark tourism product is fun factories, Stone (ibid) identified their main aim is to provide entertainment and commercial ethic. The fun factories occupy the lightest edge of the dark tourism spectrum. One example of dark factories could be the London dungeon. The London dungeon attracts its visitors with the promise of ghouls and displays of morbidity. The London Dungeon is a socially acceptable environment in which customers can gaze upon simulated death and suffering.

The second dark supplier is dark exhibitions. Dark exhibitions refer to sites that blend the product design to reflect education and learning opportunities. Dark exhibitions mainly offer products that revolve around death but derive an educational message. Dark exhibitions and are often located away from the actual site of death or macabre event. (Stone 2006.) In the opinion of the author of this report, the case company, the National Museum "Chornobyl" is a dark exhibition.

The next dark tourism product is dark dungeons, they are attractions that revolve around former prisons or courthouses. Since dark dungeons are a mixture of education and entertainment, they occupy the centre-ground of the dark tourism spectrum. An example of the dark dungeons could be the Galleries of Justice in Nottingham, United Kingdom.

The fourth dark supplier is dark resting places. Basically, cemeteries and grave markers are the vital components of dark resting places. (Stone 2006.) According to the Association of Significant Cemeteries in Europe (ASCE), cemeteries are an integral component of cultural

heritage, and those cemeteries with historical or artistic significance should be conserved (ASCE 2005).

The fifth product Stone highlighted is dark shrines, they are usually constructed close to the site of death and after a small amount of time, the death had occurred. They are built for those people who would like to visit the death place and mourn. The dark shrines occupy the darker edge on the dark tourism spectrum.

Dark conflict sites are the sixth dark tourism product. These sites are based on the former battlefields and destinations associated with warfare. Dark conflict sites essentially have an educational focus and are history-centric.

The last dark supplier is the dark camps of genocide. This category is the darkest on the dark tourism spectrum because the sites in this category have genocide and catastrophes as the main theme. An example of a genocide camp could be the Auschwitz-Birkenau Memorial and Museum. (Stone 2006.)

4   The case of Chornobyl

On 26 April 1986, during a procedural shut down of reactor number four at the Chornobyl nuclear power plant in the Ukrainian Soviet Socialistic Republic, a catastrophic surge of energy led to a vessel rapture. Subsequently, it resulted in the world's worst nuclear accident. A routine drill went awry, and the reactor blew up, destroying the 2000-tonne concrete roof. The radioactive waste from the exposed heart was hurled up into the air, where it was spread by waves and air currents all over the northern hemisphere. (Goatcher & Brunsden 2011.)

Chornobyl is located 130 kilometres north of Kyiv in Ukraine and about 20 kilometres south of the Belarusian border. It is no longer a nuclear power plant, but a term used to describe the events. (White & Frew 2013, 79.) The debate over the number of deaths is still ongoing due to inaccuracies in the records, but a Greenpeace report states that approximately 270000 cancers within the affected region were caused by the accident. The number of deaths caused by the incident is around 200000 people from Russia and Ukraine. The report also examines the ongoing health issues, including blood illnesses, psychological disorders, chromosomal aberrations. (Greenpeace 2006.)

In 2011, the Ukrainian government-sanctioned official tours to the site, as well as to the "ghost-town" Pripyat. Chornobyl has become a destination highly associated with dark tourism. (White & Frew 2013, 79.)

4.1   Chornobyl as a tourism destination

Although the concept of "Chornobyl" is well-known, fewer people are familiar with the name "Pripyat." Pripyat was designed to support the construction and operation of the Chornobyl nuclear power plant site, so the two are inextricably intertwined. The 47000 inhabitants of Pripyat were evacuated 48 hours after the blast. A total of 116000 people were evacuated from a 30-kilometer area around the crippled nuclear plant the next day, and access has been heavily restricted since then. (Goatcher & Brunsden 2011.) Only scientists continue to monitor the sarcophagus shielding the destroyed reactor and the atmosphere surrounding it since the last of Chornobyl's four rectors were closed in 2000 (Mycio 2005, 9).

In 2006, 20 years after the disaster, more than 2000 people, including international and Ukrainian journalists, politicians, and members of public organizations, visited the Pripyat/Chornobyl district. One of the Kyiv-based travel agencies organises tours to the exclusion zone, another agency claims to receive about 20 Chornobyl-related inquiries each

month, the majority of which are from international visitors. (Vilkos 2006.) For many individuals, the fact that sightseers visit the zone tends to be a contentious endorsement of using the suffering space as a kind of entertainment. (Banaszkiewicz, Kruczek & Duda 2017.)

Tourist attractions are an important part of the tourism industry because they generate excitement in visiting a tourist destination and ensuring that visitors have a good time. They serve as a lure, attracting visitors to a tourism destination while still increasing demand for other tourist facilities. Chornobyl's growing success is certainly part of a broader pattern of visiting disaster sites, such as Ground Zero in New York City or an obsession with deserted areas. Chornobyl is the epitome of extreme encounters for many people, allowing them to play with danger but not breaking the line in terms of risk due to the presence of a skilled guide. There are also those who wish to explore the secrets of Chornobyl from a scientific point of view or to commemorate the victims of the disaster. (Banaszkiewicz, Kruczek & Duda 2017.)

It is essential to note the variations in views toward Chornobyl, from those who see it as yet another tourist destination to those who see it as a shrine to the disaster victims. Chornobyl area can be used as a tourist attraction while still being a painful memory. (Banaszkiewicz, Kruczek & Duda 2017.)

5   The national museum "Chornobyl"

The company which is used as a base for this thesis is the National museum "Chornobyl", its location is in Ukraine, Kyiv. The museum is conveying the history of the Chornobyl nuclear disaster which happened on 26 of April 1986. The Chornobyl disaster was the most severe radio-ecological disaster of the 20th century. The after-effects of it have no analogy and differ from other natural or manmade catastrophes. The exposition includes about 7000 exhibits - declassified documents, maps, photographs, collected by museum expeditions in the Chornobyl exclusion zone.

The National Museum "Chornobyl" is a multifunctional institution with a modern museum and archive that combines science, cultural, and educational activities. The museum was opened on 26 April 1992, six years after the Chornobyl disaster took place. The museum's mission is to help the world understand the magnitude of the Chornobyl disaster by telling the stories of thousands of people who witnessed the catastrophe, were involved in the disaster, or were victims of the disaster. The aim is to make people realize the necessary reunion between humans, science, and technology that endanger the existence of human civilization and Earth. Due to the nature of the subject material, the museum provides a visually engaging experience. The exposition of the Chornobyl Museum is equipped with modern information and multimedia tools that help visitors to fully become aware of the terrible days of the tragedy. The target customers of the museum are adults, students, and pupils who are interested in history, ecological problems, or disasters.

The slogan of the Museum is "Est dolendi modus, non est timendi". Translated from Latin, it means "There is a limit of sadness, anxiety has no limits". This saying truly describes people's motivation factor to come to any dark tourism museums. (Ukrainian National Chornobyl Museum 2021.)

5.1   The reason behind choosing a dark tourism museum

The primary reason for choosing the dark tourism museum as a case company for this thesis was because it is challenging. The author of this report believes that attracting and engaging customers in a dark tourism museum is more demanding because of the complexity of the exhibitions. Dark tourism museums differ from the usual museums by target groups, variety of educational information, and their historical significance.

As the author had mentioned in Chapter 3.3, dark tourism museums are named dark exhibitions in Stone's (2006) theory on dark tourism products. Dark exhibitions mostly show items related to death, but they likewise convey an educational message. It indicates that

the museums' initial purpose is to educate customers. The author of this thesis reflected on this information and concluded that museums are the ultimate dark tourism sites to apply gamification techniques.

The author has overlooked the basic information about the case company in this chapter and as well stated a reason behind choosing the National museums "Chornobyl". The next chapter presents the overall picture of the museum's marketing activities and as well analyses opportunities of the new marketing tool implementation.

6 Current marketing situation of the case company

6.1 7 Ps marketing mix

As the first step, the author wants to examine the National museum's marketing by 7 Ps marketing mix. It will be done to analyse the current picture of marketing in the company. 7Ps marketing mix is a powerful concept, it makes marketing seem easy to handle, allows the separation of marketing from other activities of the firm, and the delegation of marketing tasks to specialists (Grönroos 1994).

The paragraph is based on the research of the 7Ps marketing mix written by Rafiq and Ahmed (1995). The components of the marketing mix can vary from company to company but, in this research, Product, Place, Price, Promotion, Physical evidence, Process, and People are used.

Starting with the most crucial marketing mix element, which is the Product, the author of this report has analysed the existing marketing situation of the National museum "Chornobyl". The product of the museum can vary depending on the customers' needs, but primarily the product is the exposition. The case company as well provides services such as exhibition activities, interactive lessons, online exhibitions, and gamified programs for kids. These programmes aim to gain knowledge on the importance of ecology and disasters.

The Place element signifies where a product or a service is distributed. The National museum "Chornobyl" is located in Ukraine, Kyiv, on the premises of the former Podolsk fire station. The location is visible and easy to find.

Price is an essential criterion for customers to decide whether a service or a product is worth buying. Prices are visible to customers on the company's website. The author converted the Ukrainian hryvnia prices to euros. Ticket prices for visiting the National museum "Chornobyl" cost less than one euro. For certain people, such as kids under seven or combatants, the entrance is free. As another example, the individual excursion for under 10 people, the price varies from 10-20 euros. The museum is a non-profit organisation which explains low prices for services. The museum's entrance price is as well deemed minimal by TripAdvisor, making it much more attractive to visitors. Contrarily, reviewers have mentioned that there is a one-euro price for taking a picture at the exhibition, which they consider unreasonable.

Physical evidence is the next element of the 7Ps of the marketing mix. Physical evidence refers to the physical environment of a company, branding, packaging. Since the museum is providing a service, there are no packaging materials or business cards. The physical

environment of the museum shows the true picture of Chornobyl disaster events. The exhibitions are interactive; therefore, they immerse customers into the dark atmosphere of the museum. The National museum "Chornobyl" follows the trends and exists in social media. As has been mentioned, the museum has its own website, YouTube, Facebook, and a Twitter account.

Process, as an element of the marketing mix, is referred to actions that are taken when delivering a product or a service to customers. For instance, if the case company's payment methods are efficient. In the author's opinion, the processes of the National Museum "Chornobyl" could be improved to make customers' journey more efficient and faster. The Museum Ticket Desk is the only place where it is possible to purchase museum tickets. During the museum's open hours, there is no fixed limit to the number of tickets available. The existence of an e-ticketing service would boost customer convenience and benefit the museum in time management.

If an organisation lacks the right people, it is pointless to create a fantastic brand, creative product, or impressive social media presence. It is vital to the company's success that all the staff undergo sufficient training and have a clear understanding of their positions and the effect they have on the company. The National museum "Chornobyl" has a small staff count and employees are usually expected to do tasks not related to their position. However, the museum stands out by a friendly and customer-orientated approach.

Even though Promotion is one of the elements of the 4Ps marketing mix, the author found it crucial to outline. Promotion is the most relevant element in this research since the study is based on a marketing tool creation. As it was mentioned by the author of the thesis, electronic media of the museum includes the website, Facebook, YouTube, and a Twitter account. Using these platforms, the museum's employees make advertising campaigns and inform customers about new expositions, building customer relationships. The case company is as well doing advertising campaigns when cooperating with schools and universities to present the topic or organise special programmes for students. The most recent marketing tool created by the museum is a virtual 3D tour that allows customers to visit the museum from home. Considering the COVID-19 pandemic, the tool is in demand.

6.2   GROW model

Before setting up a new marketing tool, the author will use GROW model made by business coaches Graham Alexander, Alan Fine, and John Whitmore. The GROW (G-goal, R- reality, O- options, W- will) model is a simple method to set the goals and problem-solving.

The first step in the GROW model is to set a Goal. The Goal refers to objectives the author of this research is trying to achieve, outlining the aspirations of the marketing tool launch. The Reality is discussing the current situation of the case company, as well as defining internal and external obstacles of the goal. The next step is exploring the Options of the new marketing tool launch, describing possibilities and resources. The Will is the last element of the GROW model, it is aimed at setting up the actions, success rate, and the timeline for the project. (Whitmore 2002.)

The creation of the new marketing tool based on gamification is the goal of this study and the GROW model. By launching the tool, the author is trying to increase customer engagement and the museum's brand awareness. The current situation of the National museum "Chornobyl" is unstable because of the COVID-19 pandemic. The museum is temporarily closed until further notice, and this fact makes the marketing tool creation more challenging. The tool must be available for customers online, attracting them in the time of the pandemic, as well as in the time when it is possible to visit the museum. Another challenge is to make the gamified marketing tool engaging for students, kids, as well as for adults. Since the company launched a 3D online tour a couple of months ago, the author's idea should stand out from the existing tour.

Exploring the options, the author has researched information online about gamification and its implication to various businesses. The options include basic gamification tools such as running a virtual contest, placing an on-site wheel of fortune, and creating a virtual board game. The author as well explored more advanced options of gamification tools, for example incorporating real games or creating a brand-new Trivia App for the case company.

The last element of GROW model is Will. One of the main aims at this stage is to set a timeline for the project. Unfortunately, setting a timeline is impossible since the author creates a concept of the gamification tool and the National museum "Chornobyl" does not guarantee to execute the project in real life. The author of this report has chosen to create a game that will be connected to the company's website. At this stage, the author chose to create an educational virtual sightseeing tour with the integration of game elements. The idea is creative, it matches the target group of the museum, and as well functions as a marketing tool. The author of this report is fully committed to the project and is ready to make it suitable for the National museum "Chornobyl".

7   Empirical study

7.1   Qualitative data collection

It is more than choosing whether to observe or interview people while collecting qualitative data. The method of gathering qualitative data is split into five stages. Firstly, it is essential to identify the participants and locations, obtain access, decide what kinds of data to gather, create data collection forms, then perform the process in an ethical manner. *Qualitative data collection entails gathering information from a small number of individuals or sites, using forms of generic, evolving questions to allow the researcher to elicit answers, gathering word or image data.* (Creswell 2008, 203-204.)

In qualitative analysis, it is usual to concentrate on a few individuals or events. As each new person or case is added, a researcher's cumulative capacity to have an in-depth image of the researched area diminishes. (Creswell 2008, 208.)

7.1.1   Semi-structured interview

The method used is an interview with a science director of the National museum "Chornobyl". Interviews are one of the most popular qualitative research methods techniques. This data collection method is an effective way of documenting an individual's or group's perspectives, values, experiences, and feelings. A visible advantage of the interview is that structured questions followed by an improvised conversation can generate unexpected answers, which could help the author to make a more personalised offer for the museum. (Saldana 2011,32.) However, interviews have various disadvantages. For instance, the downside of only presenting information that has been "filtered" into the interviewers' viewpoints. Moreover, the researcher's involvement could have an impact on the interviewee's response. It is also probable that interviewee answers are not concise, perceptive, or straightforward. (Creswell 2008, 217.)

 To get more information from the case company, the author of this thesis decided to conduct a semi-structured interview. A semi-structured interview was likewise chosen as a base of the empirical part of this research because the author´s aimed to get the information about the needs of the National museum "Chornobyl". For example, who do they want to attract and how they prefer to implement the new marketing tool. Semi-structured interviews are combining both open-ended and closed-ended questions, allowing the researcher to broaden a topic and, at the same time, stick to the plan (Galletta 2012). The one-on-one interview is a data collection method of educational studies in which the researcher asks questions and collects responses from one study subject at a time (Creswell 2008, 217).

7.2   Interview procedure

When starting the research, it was planned to carry out several interviews with representatives of different dark tourism sites. However, due to the pandemic, most of the potential interviewees rejected the offer or completely ignored it. The author tried to contact many companies in the dark tourism field but only one responded with a positive answer. The author did not have specific requirements for the case company. The main condition was that it would be a company operating in the dark tourism field. Anna Korolevska is a Science Director of the National museum "Chornobyl", she is a professional working in the field since 1992 when the museum just started its operation.

The author has prepared a set of open-ended questions and presented them to the interviewee in a written format before the interview to provide a clear picture of how the interview will be conducted. During the interview, the respondent expressed her thoughts on each topic, whilst the author pursued the answers further. Due to the COVID-19 pandemic, the interview was conducted online. Before setting up the interview, the author considered it obligatory to introduce the basics of the topic, the aims, and objectives of the thesis, and confidentiality issues. As it has been stated earlier in the report, the main goal of the interview was to get to know the company, to understand their plans and needs, and to seek the interviewee's opinion on the subject.

7.3   Interview analysis

The recorded interview was verbatim transcribed. Transcription is the method of translating audiotape records or field notes into text data (Creswell 2008, 217). As the only primary data collection method is the interview with the representative of the National museum "Chornobyl", the data collected is presented as a case study.

7.4   Interview interpretation

The author has summarised the answers of the interviewee to create an essay with all the relevant details extracted from the interview (Appendix 1).

When the topic has been introduced verbally, the author has asked questions concerning the National museum "Chornobyl". The author got to know that the staff of the museum is relatively small. The museum does not have a marketing department; therefore, the educational sector is responsible for the museum's promotion. The customers of the National museum "Chornobyl" vary by psychological, psychographic, and geographical factors. The museum's target customers are pupils and students. Primarily, the museum's intention is to

educate the younger generation by developing and carrying out various interactive and gamified programs and shows.

Following the discussion, the author asked questions about the museum's marketing strategy. The author learned that various promotional materials are being used by the case company. Some of the materials are usual, for example, printed materials, social media, and own website. One promotional material that came out as a surprise is that the museum creates and allocates special presentations of ready-made programmes about Chornobyl on educational platforms for teachers. As every modern company, the National museum "Chornobyl" follows up the promotional ideas and materials of their competitors.

The next set of questions was based on the gamification topic and needs of the museum on the new marketing tool. The science director of the museum was fully aware of the meaning of gamification and its benefits for the company. The author found out that the case company had been using gamification as a part of their daily activities, which was considered a revelation by the author. In the author's opinion, dark tourism museums are rare users of gamification implementation. Furthermore, the museum has marketing tools based on gamification including quests inside the museum, interactive ecological lessons for kids, theatrical excursions. Anna Korolevska has likewise mentioned that dark tourism sites are hard for humans' perception. Consequently, gamification must be used to simplify the acceptance of the topic. Since the museum aims to attract more students and pupils, a gamification-based tool is the right way to help to understand such a challenging phenomenon. One of the exceptional conditions that the new marketing tool should accord with is its location. Representatives of the National museum "Chornobyl" would want to receive an online marketing tool that can be linked to the company's existing website.

8   The marketing tool development

It is not reasonable to assume that a death site that may be a part of a "coach tour" itinerary is any less significant for an individual than a trip to a distant memorial (Lennon & Foley 2000, 4). The National museum "Chornobyl" is seeking new ways of attracting and engaging customers. The interview with the Science Director of the museum gave the author of the thesis an understanding that the employees of the museum are already implementing gamification techniques. However, due to COVID-19, the museum requires a new interactive idea that could be implemented on their website. As has been previously mentioned, the marketing tool must be online and linked to the museum's existing website.

The author plans to include a variety of tasks in the game, each will differ degrees of difficulty. Besides, participant engagement should be considered. Tasks can be solved, and awards can be won if participants work together as a team to achieve greater success. Secondly, after completing the assigned tasks, the earned points or badges could be converted into real-world rewards such as discounts on the next museum visit. The use of technologies such as virtual reality, augmented reality, mixed reality, or other related types of technology could be considered to improve participants' visits to the museum. (Tsai 2020.)

There are six elements of gamification the author believes are vital when creating a marketing tool based on gamification. The elements include point-badge-leaderboard, challenges, surprise, social interaction in the community, creativity, innovations, and scarcity. The PBL is an abbreviation for the point-badge-leaderboard system. Fundamentally, the PBL can be shown when players complete tasks and earn achievements or gain points. It is commonly used to see the impact of players in the real world. The second element is a challenge, any game needs a challenge for a player to keep playing (Tsai 2020). Surprise is improving customer experience and attract their attention. Humans are social animals, therefore social interaction through the game is vital. Fifthly, creativity and innovations in which users can contribute time and effort are verified to increase their involvement. The last element is scarcity, it leads to a feeling of urgency to buy or to use a specific service. (Tsai 2020.) The six elements of gamification will be taken into consideration further in the research.

8.1   The author's approach of the Elemental Tetrad Model

Based on the Elemental Tetrad Model described in Chapter 2.4, the author of this thesis has created an adapted model that will simplify the process of a new marketing tool creation (Figure 4). The author proposed that the four elements are applicable to gamification.

elements are applicable t

Gamification
elements:
1. Story
2. Mechanics
3. Technology

The consumer:
1. Goals
2. Characteristics
3. Usage context

Marketing
Outcomes:
1.Engagement
2. Brand
awareness
3. Retention

The product of
gamification:
1. SWOT
2. Marketing
element
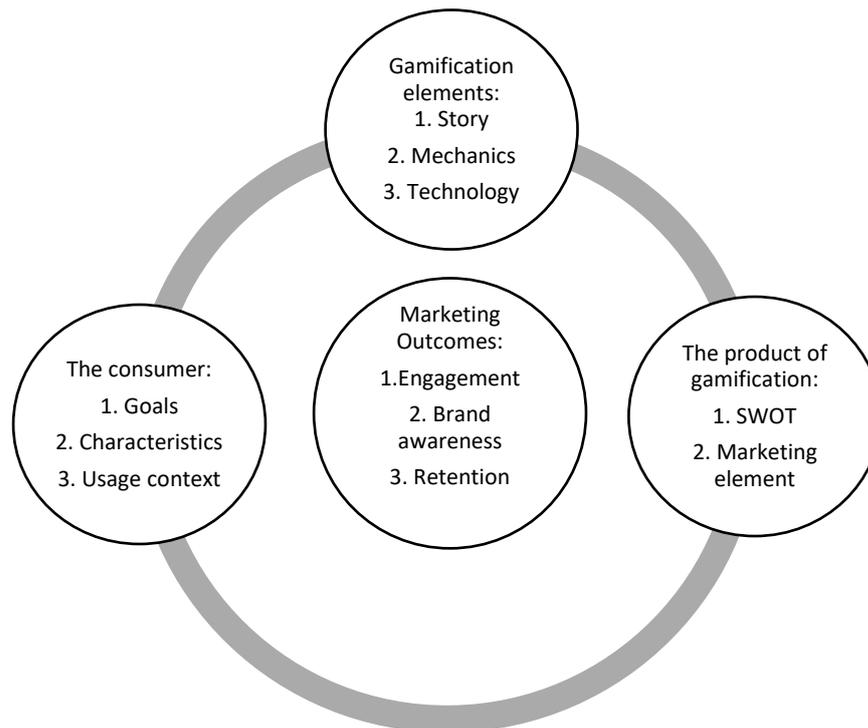
Figure 4. The author's approach. (adapted from Schell 2008)

In the middle of the model, marketing outcomes are located, which could be achieved by implying a gamified tool to the "Chornobyl museum. Engagement in customers' learning process, brand awareness, and customer retention are the main targets to achieve. The outside circles assist to evaluate what kind of product will be created for the museum. First, the author will investigate the consumers' points of view and their possible expectations. The next step is to decide the mechanics and story of the future service. And lastly, the ready-made gamification tool will be assessed by its usability, SWOT analysis, and marketing element.

8.2 Consumers' expectations

Since the implementation of the marketing tool is not possible in real life due to the COVID-19 pandemic, there are no ways of questioning possible consumers on the research topic and, therefore, measuring the success of the gamification tool usage.

8.2.1 Goals

As the motivation factor of customers should be considered whenever setting up a new marketing tool, the author of this report decided to include motivation factors of tourists to play a tourism game.

Tourists' primary reason for participating in a tourism game, as seen in Figure 5, is curiosity, as this is a cutting-edge method of marketing. Exploring the area is another common trend. However, since it is multi-dimensional, these motives can coexist at the same time. Tourists who play the game want to learn more about the place. The impetus for socialization is based on the possibility of encounters between tourists and local people, as well as between tourists themselves. The game's flow is as well supported by intrinsic motivation such as fun and fantasy, challenge, and achievement. When players gain experience, they seek out more excitement and obstacles. (Xu, Tian, Buhalis & Weber 2013.)
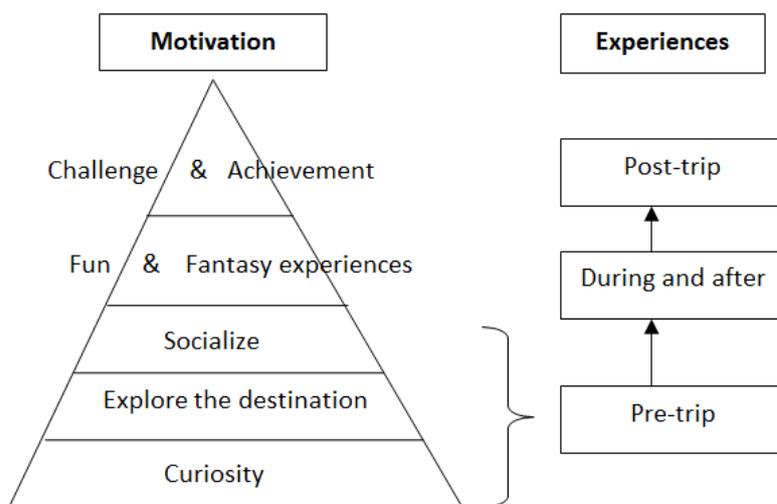

Figure 5. The motivation of playing a tourism game. (Xu, Tian, Buhalis & Weber 2013)

In the author's approach model (Figure 4) goals introduce reasons why customers are to spend their time playing the game created for the National museum "Chornobyl". The main benefit of trying out the game is to gain new knowledge about the museum and the Chornobyl nuclear disaster. An additional need to play the game could be caused by a simple curiosity of the customers. The game is educational and as well entertaining, thus an extra players' motivation to play could be to have fun.

8.2.2 Characteristics

As the target customers for the National museum "Chornobyl" are students and younger pupils, it is effortless for the researcher to build up an example of a user profile (Figure 6). The game is suitable for kids above six years old, students, and adults. When launching the game, the core languages will be Ukrainian, Russian, and English. If the game is successful, the other languages could be added.

Figure 6. Customer profile.

8.2.3 Usage context

The main condition under which customers start playing the game is certainly when visiting the National museum "Chornobyl", the tool would be a useful and beneficial complement to the museum's customers and employees. Another situation is when tourists would like to visit the museum but are not able to do it due to some circumstances. However, the game is not supposed to reveal all the information tour guides possess because it is promotional material. The game can as well be used when having excursions for kids or students since there is an add-on feature that can be used only while experiencing a tour in the National museum "Chornobyl".

8.3 Gamification elements

8.3.1 Story

The author has decided to create an online game for the National museum "Chornobyl" because it is the most logical solution due to the COVID-19 pandemic. The game as well has a possibility of mixed reality by creating an avatar when a customer encounters a real-life museum experience.

The first gamification element is a story, whose aim is to provide context to the game. The author of this report has investigated the game industry in finding games about Chornobyl events. The game industry has mainly produced games that have a strict age limit, typically

18+. The author of this thesis aims to produce a context of the game that is suitable for ages above 6. Unquestionably, the game must as well market the National museum "Chornobyl".

The game revolves around and takes place in the National museum "Chornobyl" and its surroundings. Since the gamification tool is a game, the virtual museum will be drawn and animated. The player is supposed to learn about the museum and the Chornobyl disaster while completing quests and playing mini-games. Educational facts are an integral part of the game's narrative and mechanics. The fundamental description of the game is an educational virtual sightseeing tour with the integration of game elements.

The main character of the game is the player. The player's primary location is outside the museum, next to its entrance. Mini-games, pieces of information, and trivia quizzes are accessed by interacting with the museum's environment. As an example of what the game's world could look like, the author refers to the Night at the Museum: Battle of Smithsonian game (Figure 7). The players can track their progress by checking the progress bar. The progress bar is displayed while gaming, and it represents game completion progress in percentages. By successfully completing all the tasks in the game, customers could get benefits from the next visit to the National museum "Chornobyl", for example, a discount on the museum's services or exclusive promotional material.

Figure 7. Night at the Museum: Battle of the Smithsonian. (Pipeworks Software, Inc. 2009)

8.3.2 Mechanics

The concept of the game could be interpreted incorrectly by comparing it to 3D tours, but the main point is that the game is interactive and provides much more knowledge than a

usual 3D tour. The game offered by the author as well has more focus on the target audience of the case company. Hence, the 3D of the National museum "Chornobyl" is still able to operate, but the game has a different aim at its core.

Mechanics is based on structural aspects of the game and is involved in levels and achievements creation. As the game is designed mostly for a younger audience, there is a possibility to choose an avatar at the beginning of the gameplay. Many academics have explored how online personalities in videogames and virtual environments play an important role in the creation and discovery of actual selves. The visual features of an avatar, as well as its name and the powers of player characters, provide users with a means of expressing their personality and a means of extending their identity development. (Turkle 1995, 192.)

For example, it would be possible for players to change the skin colour, hairstyle, and facial features of the avatar (Figure 8). Features including the opportunity to build and customize a character and navigate a game world create an engaging environment that is not just entertaining but likewise aids in learning retention.
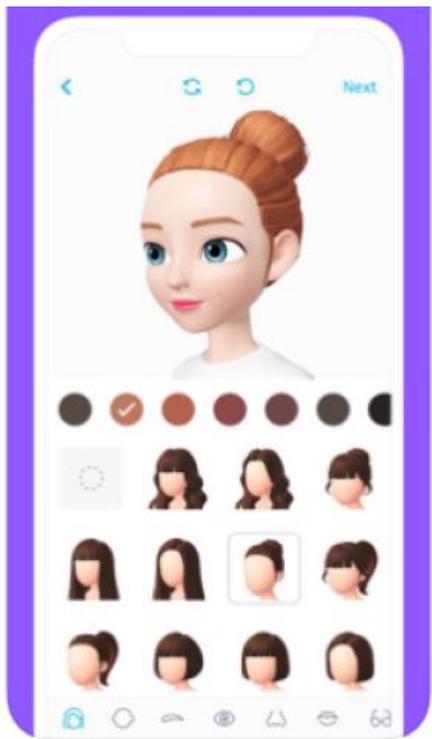
Figure 8. An example of Avatar creation. (Zepeto Avatar Creator 2018)

The players have to educate themselves as the first step of the game. As it has been said above, the player is able to interact with different objects. For example, by pressing on the picture of one of the survivors of the Chornobyl disaster, the player can access the person's background story. Later, during the game, a quiz may pop up and include a question about this person's life. The tasks become available gradually, while a player is experiencing the

gameplay. An example of a mini-game could be based on the topic of recycling different waste since the museum provides educational activities about waste management for kids. The mini-game could be as simple as there are various waste products in front of the player's avatar and the person must recycle them into different bins. The game can as well shed the light on radioactive waste and its management.

The W, A, S, and D keys on the computer keyboard are used in place of the arrow keys for playing the game. They are mostly used because they enable the player to control more of the keys in their immediate vicinity. A mouse is used to interact with the game's world and complete mini-games, quests. The game could also be played on a smartphone if a mobile version is accessed from the company's main website.

When it comes to the relationship between the game and the museum, an add-on feature could be included in the mobile version of the game. The more questions a player asks or the longer he/she listens to the museum guide, the more credits the participant earns. The museum's currency can be called credit points. The player's avatar can as well be rewarded with an accessory, a piece of clothing, or a medal for asking excellent questions, listening attentively, or assisting other players. The player can display these rewards on the avatar, sell them, or use them to purchase other items. At the end of an excursion, players can show their avatars to friends and compete on who has been the most engaged during the tour.

8.3.3 Technology

Finally, technology is involved in how the medium influences the gaming experience. In the case of the game, it would be possible to use Personal Computers, as well as smartphones to access the website of the National museums "Chornobyl", and therefore open the game. The game would be modified for smartphones by adding a mobile version since the add-on feature would only be available when customers visit the museum.

The game will be accessed from the website of the National museum "Chornobyl". The author has created an access symbol that could be placed on the company's website (Figure 9). The main colours of the museum's website are black, red, and white, hereby the author has used them when making the access symbol.

Figure 9. The game's access symbol.

It is crucial that potential customers pay attention to the symbol while exploring the website. The author of this report has thought that the best location of the game's access symbol should be visible on the main page (Figure 10). It could be placed on the left side of the website with all other information about the museum, but it would not attract as much attention.
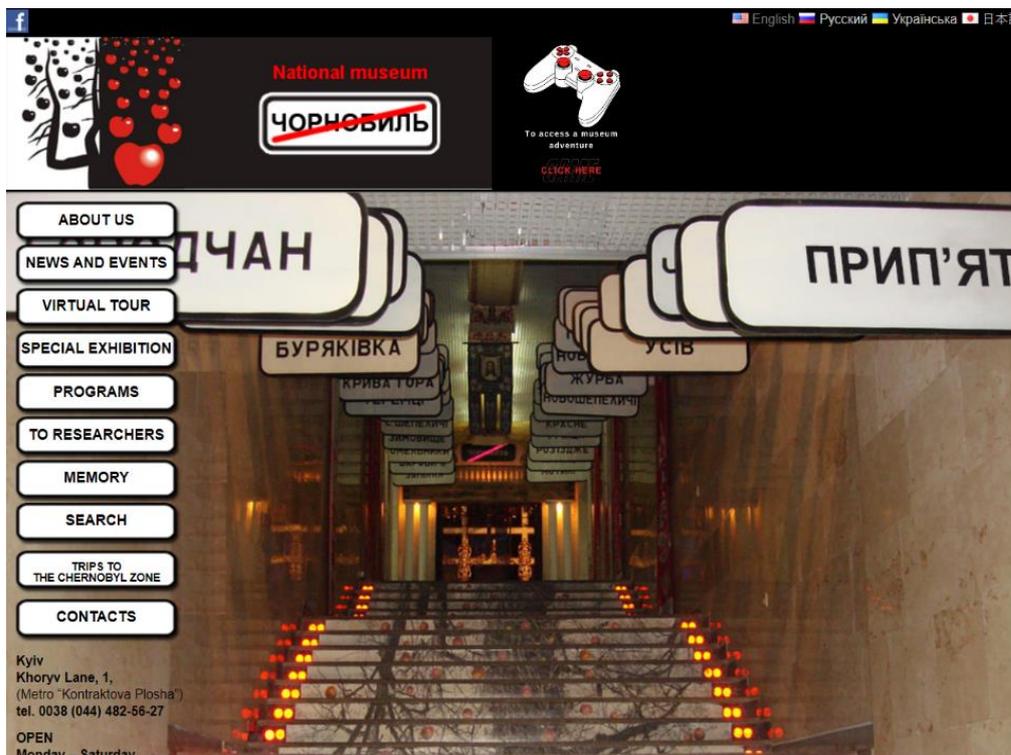

Figure 10. The National museum "Chornobyl" website with an access button. (Ukrainian National Museum "Chornobyl" 2021)

8.4   The product of gamification

8.4.1   SWOT analysis

SWOT analysis is the most widespread method used by researchers to "kick start" the strategy preparation process (Warren 2002). SWOT remains a crucial strategic tactic because a concentrated SWOT approach extracts strengths and vulnerabilities into core competencies and core issues (Helms & Nixon 2010, 216). The author of this report has assessed the gamified marketing tool with the help of the SWOT analysis model to evaluate possible benefits and disadvantages on the market (Figure 11).

Strengths:
1. Innovative marketing tool
2. Game increases customer engagement
3. Ability to play remotely

Weaknesses:
1. The game launch is costly
2. Poor production quality

SWOT

Opportunities:
1. Low competition
2. New customer base
3. Increased brand awareness for companies

Threats:
1. Lack of customer's awareness
2. Target group is not interested in the product
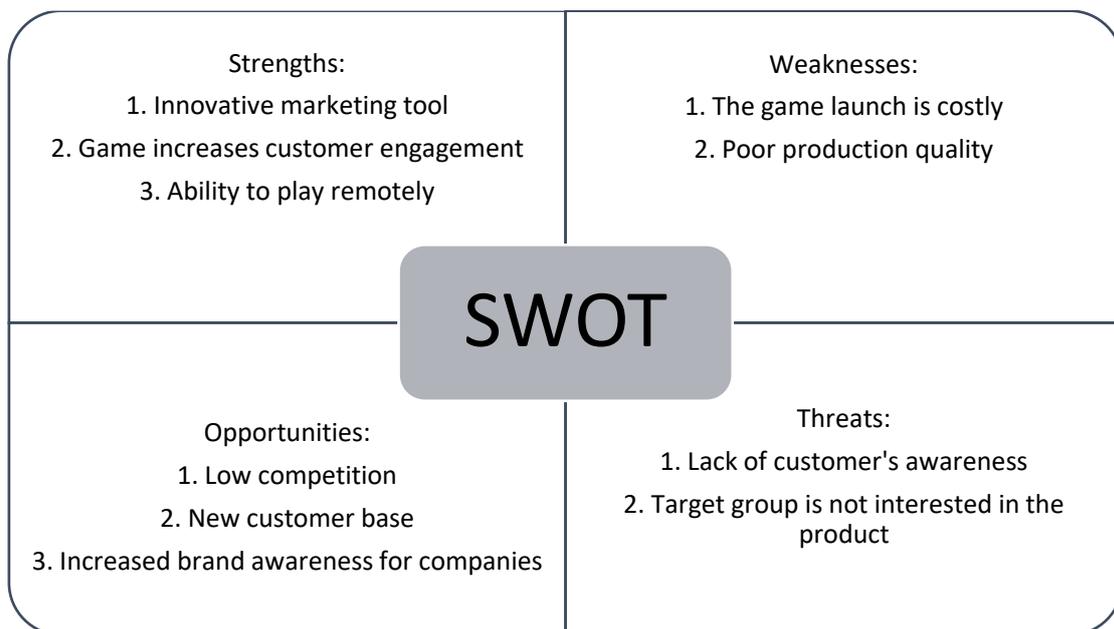
Figure 11. SWOT analysis of the game product.

Strengths of the game created include an ability for customers to play remotely, no matter where their location is. The game as well increases customer engagement of the company in question and could be considered as an innovative marketing tool. Weaknesses of the game depend mostly on the production phase, including quality and budget. Opportunities of the game for companies include low competition in gamified marketing tools, therefore making customers curious about the product. By launching the game, companies are to gain a new international customer base and consequently increase brand awareness. The last element of SWOT is threats, the game could become a failure project if the customers are not aware of the game or the target group is not interested in the game's concept.

9   Discussion

9.1   Summary of the gamification tool

The gamification tool created by the author of this report is an online game including a virtual tour of the museum and containing educational background about the National museum "Chornobyl" and the Chornobyl disaster. The game starts at the case company's website by pressing the access button created by the author of this thesis. A player is the lead character of the game. Since the game is geared toward a younger target group, there is an option to create an avatar at the start of the game. The player is able to interact with the virtual museum's environment, which allows accessing mini-games, facts, and trivia quizzes. It would be possible to use Personal Computers, as well as smartphones to access the website of the National museums "Chornobyl", and therefore open the game. The game has a mobile version, which gives access to the add-on feature, and a version for computers.

The six elements of gamification were mentioned by the author of this report, they include the point-badge-leaderboard system, challenges, surprise, social interaction in the community, innovations, creativity, and scarcity (Tsai 2020). The ready-made gamification tool includes the PBL system, challenge, surprise, and social interaction. The PBL system is represented in the game by the ability of players to track their progress while playing by checking the progress bar. The Challenge of the game is to walk through the whole game to receive a surprise gift, which could be a discount to the next museum visit or an exclusive promotional material of the National museum "Chornobyl". The social interaction of the game is not visible during the online game process, but it can be achieved when accessing the add-on feature during the museum visit. The player's avatar can be rewarded with an accessory, a piece of clothing, or a medal for asking excellent questions, listening attentively, or assisting other players.

The author of this thesis claims that by implementing the project to life, the National museum "Chornobyl" can achieve the marketing goals presented in the author's approach model (Figure 5).

9.2   Efficiency of the gamification tool

The efficiency of gamification service is determined by uncontrollable variables. There is no way to know if the service provided matches what was expected and advertised. Employees as well influence the quality of the service and the company's adaptation. (Conaway & Garay 2014).

Gamification practices are usually evaluated based on improved net income, customer satisfaction, or customer return to the company's website. These variables are unquestionably important to companies, but each one is dependent on a variety of factors. Increases in sales revenue, for example, could be driven by commodity prices or buyer desires rather than gamification. (Conaway & Garay 2014).

Due to circumstances connected to the COVID-19 pandemic, it is impossible to measure the success of the gamification tool created by the author since the game will not be produced and implemented in real life.

9.3   Marketing element of the game

The main aim of the game for players is to learn new information and get to know the National museum "Chornobyl". The game could be used to promote the museum at schools and universities around the world as a part of a history or geography class, for instance.

The add-on feature is as well able to attract customers, especially the younger audience since it is a bold and innovative idea that provides customer engagement. The case company can mention the game in their promotional materials, thus attracting visitors to the company's website and visiting customers of the museum.

The game as well does not need to be free of charge for users, the museum can get extra funding from selling access to the online game. Whilst the customers who visit the museum can be given free access by the companies' employees.

10 Conclusion

By researching the topic, the author found out many gamification techniques and tools helping companies to market their products. To answer the main research question "How gamification could be used as a marketing tool in dark tourism museums?", the author of the thesis has created a concept of the game which can be used as a marketing tool for the National museum "Chornobyl".

The author's goal was to investigate whether it is beneficial and appropriate to use gamification in dark tourism museums' operations. With the help of this work, representatives of the dark tourism industry can make proper decisions in whether to apply gamification for the marketing purposes of companies. This report can as well be used as a starting point of creating new gamified marketing tools for the tourism industry's companies.

In the theoretical section, notable works of literature and other scholarly works were studied, with an emphasis on gamification fundamentals, dark tourism, and tourism marketing. These theories provided fundamental knowledge on the application of various types of game elements on marketing activities of the National museum "Chornobyl.

10.1 Answers to research questions

The study's key objectives have been met, as have the research sub-questions that have been addressed. The sub-questions were focused on explaining the core of gamification in marketing and listing its advantages and disadvantages. According to the Wall Street Journal (Burris 2014), gamification in marketing is a quick-moving trend of using sophisticated games and skill-based learning platforms that are self-diagnostic, interactive, and competitive–all focusing on offering the consumer an immersive experience. The main advantages of using gamification in marketing are increased customer engagement, a more engaging learning environment, increased brand awareness, and high conversion rates on companies' websites. As for the possible disadvantages, the author of this thesis includes the quality of the marketing tool, the amount of budget and resources, and the tool not matching the target audience.

The last research question was more tightly connected to the research conducted by the author. It focused on how to attract new customers by employing gamification in dark tourism museums. When concentrating on this thesis, the author has offered the game that would engage new customers as well as existing ones. The existing idea of the marketing tool could be transformed to any other dark tourism museum by changing the topic and locations of the game.

10.2 Suggestions for further research

The thesis topic could be continued by implementing the project in real life and measuring the success of the marketing campaign. In further research, it is possible to analyse customer engagement when using gamified marketing tools in dark tourism museums. What is the consumer's motivation to use gamified tools? How can user engagement be calculated and measured? What types of metrics should be used to do this?

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Appendix 1. Open-ended questions for the interview with Anna Korolevska, the science director of the museum.

1. Is there a specific person in charge of the museum's marketing activities?
2. What is your target group at the moment?
3. Are you satisfied with the marketing strategy of your company? Would you like to change anything?
4. What promotional materials do you use as a part of your campaign? (websites, print materials, social media platforms)
5. Are you following your competitors' marketing strategies?
6. Do you know what is gamification and how it could be used to attract customers?
7. Do you have any marketing tools based on gamification?
8. In your opinion, is it necessary to use gamification in museums' activities?
9. What is the target audience you would like to attract with the new marketing tool created?
10. How would you like to implement a new marketing tool? Offline or online? Should it be linked to the company's website? Could this be a team game? Should Augmented Reality be used?
11. What key content (= story) could be used as the gamification object?