Analysis of Tourism Game Effectiveness as Promotional Strategy

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ABSTRACT

Gamification is one of the creative promotion strategies applied to the tourism industry as a promotional strategy. Game is one of the entertainment media concepts which tourism has recently adopted this strategy as a marketing medium, especially in the digital era. Many countries, such as Thailand, Brazil, Ireland, and Germany, have begun to apply gamification to their tourism promotion media, ranging from social media to video games. A tourism game is one type of strategy that can convey messages through a personalized approach in interactive visual media based on specific tourism goals or themes. This type aims to attract customers using a gamification approach aimed at the millennial generation. This gamification strategy has benefited the industry, especially in terms of the economy, increased public awareness, and built market potential. It also increases the desire to visit the tourism sector, as Thailand and Brazil have proven. Therefore, Indonesia can also develop the tourism industry and compete with other countries through creative promotional strategies. Case study analysis will be carried out in this study by comparing game elements in the tourism promotion gamification strategy used in three game titles: Ireland Town (2011), Questo: City Exploration Games (2020), and Legend of Catalonia (2020). This study aims to explore the effectiveness of video games as a tourism promotion strategy and the impact that has been given to determine the market potential. Through the SWOT analysis method; This study also tries to evaluate the strengths, weaknesses, opportunities, and threats of using tourism games as a promotional strategy. By defining the effectiveness of using gamification as a promotional strategy, the analysis of the results is expected to build the Indonesian tourism industry through creative promotional strategies.

Keywords: Tourism Game, Gamification, Tourism Promotion, Video Game.

1. INTRODUCTION

Since the last few years, gamification has become one of the popular creative promotion strategies applied to various industries as a promotional medium, one of which is the tourism sector [1]. Several countries, such as Brazil, Thailand, Ireland, and Germany, have started implementing gamification in their tourism promotion media, ranging from social media to video games. Gamification is the process of incorporating game design elements into non-game contexts. Business issues can benefit from game mechanics. When game mechanics are used in a non-game context, they serve as a motivator and a point of reference for creating more engaging digital systems and influencing user behavior and social interaction procedures [2]. Traditional gamification strategies include offering special promotions, membership rewards, and loyalty cards to entice customers to interact regularly. However, as technology advances, traditional communication has lost its appeal for some industries, particularly those that cater to millennials [2][3]. Gamification using video games is a new way that the industry is beginning to embrace due to its proclivity to adapt. It is because this type of gamification makes it more enjoyable to engage with specific activities. Additionally, it may encourage visitors to visit tourist attractions and extend their stay in the country [3][4]. A significant increase in the gamification market reached $177.8 billion in revenue in 2020 and was dominated by mobile platforms with an increase of 4.4%, contributed mainly by smartphones in 2021 [5].

A tourism game is one type of strategy that can convey messages through a personalized approach in interactive visual media based on particular tourism objectives or themes [1][2]. Tourism games can impact and attract visitors, particularly the millennial generation, by providing interactive experiences. Experts say this type of gamification has a wide impact on tourism. The increasing amount of traffic on the site that also attracts the number of tourist visits is an advantage claimed as the impact of the tourism gamification strategy [1]. The primary elements, virtual experiences, and interactions employed in tourism gamification tactics encourage tourist visits to a tourist destination based on how they respond to a stimulus. As a result, for tourism gamification to be effective, it must be based on tourist behavior models.
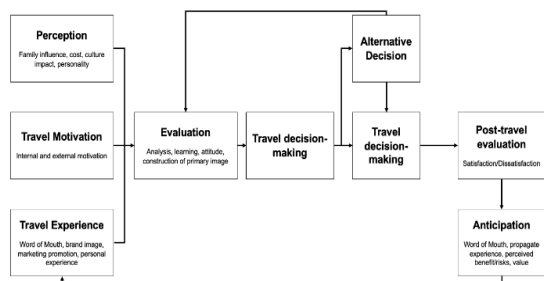
Figure 1 Tourist behavior models in decision-making

The tourist behavior model aims to understand the behavior of tourists in making visit decisions based on responses to the stimuli they receive from the tourist's point of view [6]. The Tourist Authority of Thailand (TAT) has launched Smile Land Thailand to promote tourism icons in Thailand and increase user frequency on TAT's social media channels. More than 200,000 downloads of the game Smile Land Thailand showed enthusiasm to get to know the Thai icon and contributed to a significant increase in tourism visits compared to 2010 [2]. The motivation used by TAT is to collect as many points as possible and be the first in the leaderboard to get prizes. There is also the Brazil Quest Game, a social media game launched by the Brazilian Tourism Board as a form of supporting strategy to promote Brazil, which has the status as the host of FIFA. It significantly helps tourists, especially those who visit to watch the FIFA league, understand everything about Brazil [7]. Indonesia must advance creative industry marketing strategies as a country with a rich cultural diversity and tourism industry. It is expected to improve the creative economy's conditions, increase resources and investment, and strengthen the

image of the Indonesian tourism industry in the eyes of the world. The Indonesian Ministry of Tourism and Creative Economy in 2019 has started using a gamification strategy to introduce the culture and beauty of flora and fauna by cooperating with Agate (an Indonesian game developer). Through the Onet Go and Crossword Go games, this strategy is considered quite successful in increasing the number of foreign tourist arrivals from Malaysia and Singapore by 24.56% and 16.46%, respectively [8].

This way, developing tourism promotion strategies in tourism games to promote tourist destinations and attract visitors is considered feasible at the national scale. More research is needed to determine the best gamification strategies for tourism. The most popular games used in tourism to increase engagement and enhance tourists' on-site experiences are online or offline games as well as location-based mobile games [1]. Hence, researchers will evaluate the effectiveness of tourism games as gamification strategies. This research study expected that the outcome can help Indonesia develop a tourism gamification strategy.

2. METHODOLOGY

This study uses a descriptive qualitative method by compares three video games: Ireland Town (2011), Questo: City Exploration Games (2020), and Legend of Catalonia (2020). It is focused on three aspects that can be used to create gamification tourism games and measure their success. The first aspect of this analysis is tourism marketing goals. An aspect of tourism marketing research is the benefits of a tourism promotion strategy after meeting its objectives. This benefit can be seen from both the destination's and tourist's perspectives, such as tourism awareness, tourist loyalty, and environmental awareness. It then looks at what aspects help build and support marketing goals, bringing the three games to their goal as a tourism marketing gamification strategy. The next feature is gamification, which is based on game design elements. Gamification is the usage of game design concepts outside of a game. If a challenging game meets all the criteria for a game, gamification only leverages some of the game's design components [9]. Deterding's idea of applying game design components to the gamification technique is used to guide this study. Then there is motivation to travel. The game delivers clear, fascinating information and goals and a real sense of the tourist location [1]. Only a fulfilled motivation can make a game fun and stimulate curiosity about tourist places. As a result,

this component aims to assess how well the three games meet player expectations and how they affect their respective tourist locations.

Gamification strategies are built by presenting elements found in games in general, sorting and packaging them into one but not necessarily using all game elements like game design in general [1][9]. Gamification is most commonly used to increase user enjoyment, engagement, or overall user experience. Even though experts argue that "gamification" need not be limited to a specific context, purpose, or scenario, it has been discovered that gamified game design elements are more abstract and thus treated differently. So, to explore the gamification strategy of tourism games, this analysis uses at least five levels of elements, namely:

The five-game elements used in gamification in tourism can accomplish both short- and long-term objectives and various motivations. Motivation to play, especially in tourism games, influences the type of gamification used. The gamification strategy must be based on player satisfaction and needs [9], an under-researched area. Intrinsic motivation arises from the desire to keep doing something in order to

and experiences, socialization, gender-based interest, and excitement for exploration offered by GPS-based or VR games. Thus, motivation analysis is carried out to get a perspective of gamification strategies that can attract tourists to play and visit tourist areas. However, gamification in tourism is not just about brand awareness and visitor attraction [1]. Gamification benefits both the tourism industry and the potential market and tourists.

For example, increasing brand awareness, increasing tourist loyalty, providing virtual experiences for tourists, increasing engagement, providing virtual entertainment for potential markets (tourists), attracting tourist attention and interest, and increasing environmental awareness in tourist areas. The tourism game's promotional benefits are not absolute indicators that the tourism sector must achieve. Thus, by examining Ireland Town (2011), Questo: City Exploration Games (2020), and Legend of Catalonia (2020), the effectiveness of video games as a strategy should be assessed. Tourism promotion and its impact on market potential. This study also conducts a SWOT analysis to determine the advantages and disadvantages of using tourism

Table 1. Levels of Game Design Elements [9]

Level	Define	Example
Game design patterns and mechanics	Parts of game design that concern gameplay and generate player engagement	Resources, turns, time constraint
Game design principles	Approach a design problem or analyze a given design solution	Variety of game styles, clear goals
Game interface design patterns	Successful interaction design components and design solutions	Badge, leaderboard, level
Game models	Conceptual models of the components of game experience	MDA (Mechanic, Dynamics, Aesthetics), CEGE (Core Element of Gaming Experience)
Game design methods and design processes	Game design-specific practices and processes	Value conscious of game design, play centric design

achieve self-satisfaction. Extrinsic motivation comes from external sources like prizes, points, badges, and leaderboards. Moreover, there is environmental a social motivation to improve the environment [1][3].

Despite mixed results, experts agree that the primary motivating goals for playing tourism games are enjoyment, satisfaction with new achievements

games as a promotional strategy.

Figure 2 (a) Questo: City Exploration Games; (b) Smile Land Thailand; (c) Legends of Catalonia. Sources: App Store and Steam

3. RESULT AND DISCUSSION

Ireland Town's head of customer engagement and e-marketing, Brian Harte, stated that the game had attracted 213,000 players and increased tourism awareness significantly. While the number of visitors to Ireland increased this year, it is impossible to determine whether the game was a significant factor. Although tourism development in Ireland struggles to connect social media interactions and game contributions, there is no doubt that this game contributes to increased tourism in Ireland [10]. The rewards Ireland Town offers players attract attention but do not guarantee loyalty. The fun and excitement that Ireland Town provided players enticed them to play, search, and learn more about Ireland. The information and exploration to raise environmental awareness are not enough for some players.

The success of this location-based tourism gamification strategy has been proven by Questo, which has influenced players who previously played

Table 2. Comparison of levels of game design elements based on Deterding's level of gamification element

Levels	Ireland Town	Questo	Legend of Catalonia
Game design patterns and mechanics	Time constraint in the form of a competition to collect the most points in the shortest time.	No time limit; players can explore at their own pace, independent of the large group.	No time limit, free exploration, and a single-player game lasting about 50 minutes.
	Tasks will become more difficult as they progress.	Players must solve the clue to find the next place.	Players must solve the clue to find the next location.
	The player's speed determines how quickly they level up.	No levels; only several quests that need to be discovered.	Levels divided into 3 quests that bound from one to other storylines.
Game design principles	Players build a town with cottages, houses, pubs, B&Bs, and farms. Touring Ireland's 32 destinations and completing tasks ranging from learning the local language to earns players experience points.	With fun challenges and clues in their immediate surroundings, players discover popular and hidden attractions while learning facts and legends as the storyline.	The game's goal is to explore Barcelona and complete Sant Jordi's quest. Join Carles Puyol, Edurne Pasabán, and the Roca brothers to learn about Catalonia's legends, history, and nature.
	The game is a social media game that uses Facebook as a platform. Intuitive graphics, few NPC interactions	The game is a location-based adventure game.	Virtual Reality game with Adventure RPG genre. It features characters who travel to different parts of Catalonia to learn about Catalan history and mythology while playing mini-games.
Game interface design patterns	The game has a leaderboard for player competition.	The game levels are divided into ten tasks that require solving clues and finding the location using GPS tracking via phones. It has a leaderboard for player competition.	Game goals to gain six medals, but badges, titles only appear on steam, or PlayStation that become the game's platform and has no leaderboard for it.
Game design models	Nine challenges to unlock new areas of the game. Ireland Town allows people to socialize by asking friends to help build the city. Points earned in Ireland Town took the leaderboard winner to Ireland. 32 destinations developed	Each place has a different storyline theme, allowing the player to become the main character of a story while solving challenges related to the surroundings to unlock new places. Location tags are used to check-in on goals in each country.	Legend of Catalonia allows users to discover facts, legends, and stories about Barcelona throughout Catalonia. Mini-games become the only game obstacles, causing players mixed feelings. Game created in 3D using photogrammetry and motion capture
Game design methods and design processes	The game was created using social media to attract international tourists to Ireland. Gamifying knowledge of places is a fun way to learn. Players can also talk to each other. It's a fun social city-building game with no real challenges.	The game was developed through smartphones, becoming supported apps of travel apps. It is location-based, letting people gain interaction by using their social media, forums, and community.	The game was developed on PC and released on Steam and PlayStation. Gamifying places has mixed feelings; the environment, graphics, and story are fine, but the challenges are tedious. No social interaction between players, only with NPCs.

virtually to visit places in the same country as the players. Inspire people to explore, play, and learn more about the destination, either virtually or physically. Questo is the "Most Disruptive Travel Start-up 2019 at Hospitality" titled by the World Tourism Organisation, and one of the top 25 Hot Travel start-ups in 2020 [11]. Questo is a successful game that delivers experiences, information, and environmental awareness of tourism destinations. From the player's perspective, the roleplay system with a great storyline creates fun and attention.

In contrast, the storyline of Legend of Catalonia has enticed many tourists to visit Catalonia. However, there are no rewards or challenges. The game became popular again in 2020 when the COVID-19 pandemic prevented people from traveling anywhere. This game was successful in attracting the excitement of the community to travel

virtually. In conclusion, Questo has better marketing than the other two games because the challenges and stories are more exciting and straightforward. They are location-based games that encourage players to visit tourist attractions.

However, to dig deeper into how Questo achieves its goals and there is a possibility that other games have their respective advantages and interests, the aspect that is further investigated is based on the gamification elements. The application of gamification in Ireland Town (2011), Questo: City Exploration Games (2020), and Legend of Catalonia (2020) can be seen in table 2.

Based on table 2 data, the application of gamification felt by players is exciting and a fun way to learn culture in another country. Rewards in free visits to Ireland such as the Ireland Town game and the leaderboard displayed on the Questo website are

Table 3. Analysis of motivation to play tourism games

Motivation	Ireland Town	Questo	Legend of Catalonia
Challenge and Achievement	In 2011, Facebook users said games are good enough. They are excited while playing games and learning about Ireland. Nevertheless, they say the challenge is too great. With only one energy per hour gain, games take too long to play and complete.	The game inspired people to travel or just explore virtual worlds. People must overcome town challenges and add excitement to the roleplaying storyline. People are excited by their high score on the leaderboard, but they want to improve.	Mixed reviews show in the review. Some people stated they feel the excitement while play games also discover the fact about Catalonia. But some of them found it is bored because there is no challenge and just deliver mini-games
Fun and fantasy experiences	It is fun to play, especially with friends, as a boredom killer	Based on a review on Google Play, App Store, and websites, people stated that the game is fun and exciting.	It's a great experience divided into three parts by different hosts. Virtual Reality is one of Legend of Catalonia's tourism game's biggest draws. Yet, some players prefer to research it.
Socialize	Through community participation and asking for help, Ireland Town connects people all over the world.	Questo connects people worldwide to discover clues and discuss solutions through communities and forums.	Approximately played for 40-60 min with there is no player interaction.
Explore the destination	Not much tourism exploration through these games since it is a platformer game with limited movement	Exploration is good enough even though the game is not free	Exploration is good enough even though the graphic of some in 360 videos are poor quality
Curiosity	The destination used cute graphics, but the storyline was intriguing enough for some players to search more about the place in Ireland.	Because it is a location-based game, most players stated that they tend to discover places more while there.	The storyline is intriguing, but most players prefer to discover places outside the game due to poor graphics and lack of challenge.

considered active. They have a significant impact on attracting public interest to play the game. Some people became curious about culture to learn more about the game's story or setting. According to the above table analysis, a challenge in the game is also required so that players do not get bored and only play it once.

According to table 3, socialization, fun, and challenge are the reasons to play Ireland Town and Questo. While Questo and Legend of Catalonia provide more information about the brand/name and the authenticity of tourist attractions, the game's appeal as a tourism promotion tool is determined by its appeal to players based on player reviews. Legend of Catalunya has succeeded in capturing players' attention with its Virtual Reality sensation, while Ireland Town excels in its social interaction features. While as a promotional strategy, location-based games are highly motivating. However, Virtual Reality is superior in conveying virtual feelings and sensations and building a deeper impact awareness. The gamification strategy significantly impacts and poses risks to the related industry, as shown in the three games above. So, at the end of the analysis, a SWOT analysis is performed to determine the industry's impact (strengths and weaknesses) and future conditions (opportunities and threats) from gamification strategies in tourism. In detail, through the identification process of gamification in tourism as shown in Figure 3 below:
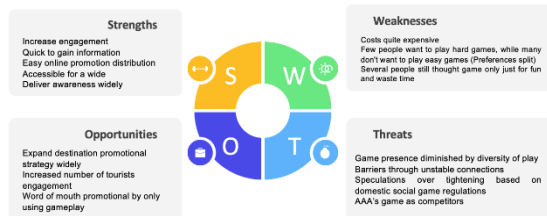

Figure 3 SWOT analysis of tourism game

4. RESULT AND DISCUSSION

The development of promotional strategies using gamification with an emphasis on tourism is considered to impact the industry positively. The tourism game is a great opportunity that can be used as a promotional strategy. It facilitates the industry to attract users, which increases the level of interaction and helps map the desires of tourists and potential targets. Tourism games also build awareness of destination information and increase the desire to dig deeper. If there are interested players, the players try to find out more by visiting the web or even coming

to the destination. The motivations that influence potential tourists both before playing and after playing are varied. Many of them choose to play for prizes, which also helps the industry see its potential. These tourists can also help promote word of mouth, whether they only know through games or those who have visited. Virtual interaction, socialization, background story, and challenges that tourism games give players gain more attention, especially those in the younger generation.

For this reason, tourism promotion strategies used in the digital era, the design of tourism games is deemed effective enough to strengthen the development of marketing communications and deliver tourism awareness widely. It is because tourism games promote a destination by reaching a virtual experience. Types of location-based games are the best choices that motivate play and be used as a promotional strategy. The challenges and storylines built in the game attract players to visit the destination directly. However, Virtual Reality is considered superior in conveying virtual feelings and sensations and building a deeper impact awareness if assessed as a "long-distance digital" promotion strategy, as long as the information provided is apparent. While creating a concept of gamification for tourism promotion, the branding concept displayed must be based on solid research and focus on the city or destination. The tourism game as a promotional strategy also should deliver the destination or city tourism information as clearly as possible. The experience building is required to have a similar level to attract the target market's attention. Ideal use of images or graphics and provide city information such as traditions, culture, arts, and cuisine. In order to gain people's attention, challenges, obstacles (gameplay) in tourism, games must be attractive, different but still uphold the integrity of the city, destination, or country. Therefore, more in-depth consideration and research are needed, considering that the direction of tourism is not standard and can change direction every season. This study is just one of several case studies exploring gamification in tourism. Moreover, the sector is fast adopting gamification, with new games and applications appearing daily. The popularity of games varies daily. Tourism gamification research requires ongoing validation and research. Based on the study's findings, the researcher suggests the following tourism gamification recommendations:

- More research is needed to understand tourist motivations and expectations for gamification in tourism, especially in Indonesia, to identify new consumer demand.

- Implementation of tourism gamification using location-based virtual medium highlighting touristic information of cities. The game mechanics must be fun, informative, and challenging.

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