Designing a Mobile Game as Promotion Media for Sambisari Temple

Muhammad Fakhri Husaini[1], Ananda Risya Triani, M.Ds[2],

[1]School of Creative Industries, Telkom University, Bandung, Indonesia
[2]School of Creative Industries, Telkom University, Bandung, Indonesia

zion.xiloidina@gmail.com (Muhammad Fakhri Husaini), anandarisyatriani@telkomuniversity.ac.id (Ananda Risya Triani)

Abstract. Sambisari temple is one of the historical tourist destinations in Sleman regency with the potential of its at-traction. By looking at the current problems, the Sleman Regency Tourism Office needs an effective media to reach the teenage as a target market. It aims to increase visits as well as supporting media for attractions of tourist attractions given to potential tourists. The design of this mobile game is intended to promote the Sambisari temple attractions in attracting teenager as a target market. This time, media games are very popular with teenagers, especially through mobile platforms that are also widely used by teenagers in seeking information and entertainment in their spare time. By using qualitative data collection meth-ods, namely through observation, literature study, interviews, surveyss and comparison matrix which are then an-alyzed as the basis for designing mobile games that are suitable for the teenager target market. It is hoped that through the design of this mobile game it will be able to provide increased visits and inform the area of Sambisari Temple Tourism for prospective tourists.

Keywords: Mobile Game, Promotion Media, Youth, Sambisari Temple.

1. Introduction

Indonesia is one of the countries with its cultural diversi-ty. This cultural diversity has become one of the attractions for domestic and foreign tourists. One of the sectors that was able to improve the country's economy. In 2018, Indo-nesia was ranked 9th in the world according to the World Travel and Tourism Council (WTTC).

Indonesia, with its cultural diversity, has various types of destination with their respective charms. One of the tourist attractions that are visited by many domestic and foreign tourists is a historic site. Among them are the Prambanan and Borobudur Temples where each temple has its own charm.

The tourist attraction according to "Undang-Undang Re-publik Indonesia number 10 of 2009", is everything that has a unique beauty and value in the form of diversity of natural wealth, culture and man-made products that become the tourist destinations. Then it is necessary for the develop-ment of attractions, one of them is a historic site as a temple with the potential of its attraction.

There is one temple that has an interesting potential to be visited by tourists. It is Sambisari Temple which is located in Kalasan District, Sleman Regency. As quoted from Saba-tina 2018, Sambisari Temple has a high potential of attrac-tion, such as architecture, history and natural scenery around it. But there are obstacles in the development of the tourism in Sambisari Temple. One of them is in terms of marketing and promotional activities to introduce the tem-ple to the tourists.

Related to this research, an interview was conducted with representatives from the Sleman Regency Tourism Office, by the Head of Tourism Analysis, Documentation and Market Analysis Section namely Mr. Kus Endarto, SE, M.Ec.Dev. He explained that the promotion of Sambi-sari Temple had been carried out through several media such as tourist guide books, brochures, websites and travel guide applications for the adult segment. He further explained that the media was not yet effective in reaching the youth tourist segment.

The youth segment is one of the niche markets that the Sleman District Tourism Office wants to achieve. So that requires effective media, such as interactive media that are able to provide educative information in promoting or at-tracting the tourists to visit these destinations. Because at this moment, the destination is still a lack of interest in the youth segment to visit Sambisari Temple. As the fast de-velopment in the technological sector that make the younger generation more interested in playing games on their mobile device than doing outdoor activities. Moreover, Sambisari Temple and other temples also need supporting media in terms of attractions they have.

Some of the selected media are social media and mobile games that are suitable to attract tourists from the youth segment. These two media are chosen by respondents from

the results of the survey that has been distributed to respondents.

Mortara (2015) stated that the game media which is devoted to Serious Games has a high potential to convey information effectively to the players. One of them is in terms of historical reconstruction which aims to describe the processes that occurred in the past. (Adams, 2014) Serious game is one part of the game that aims as a medium of entertainment. Specifically, the aim of the serious games is to carry out the education, simulations, persuasion and health.

A survey conducted by emarketer.com in 2016 shows that Indonesian gamers were 38% aged between 10-20 years. And the results of the statista.com survey in 2018, in Indonesia, most of the gamers are mobile device users, especially on the smartphone.

In this paper, the aim is to design interactive media in the form of mobile games to promote Sambisari Temple to the tourists, especially in the youth segment to be interested in visiting these destinations. which is also as supporting media of the attractions offered by Sambisari Temple.

2. Literature Review

2.1. Promotion

Kotler & Armstrong (2012) states that promotion is an activity to communicate the benefits of a product and convince consumers to buy the product. Furthermore, according to Rangkuti (2010) promotions is a sales and marketing activity that aims to inform and encourage demand for products, services, and ideas from a company by influencing consumers to buy products or services produced by the company.

From the above definition, it can be concluded if promotion is an activity to communicate the superiority of the product and that which is owned by the company in order to increase the purchase of products and services from the company.

In fulfilling the needs of consumers to fit the target market, the marketing process is needed. As revealed by Morrisan (2010) The process includes:
- Market Identification
- Determining Market Segment
- Choosing a Target Market
- Determining the Product Position

2.2. Advergame as Promotion Media

Associated with promotion through game media, Agustina (2015) provides an opinion if Advergame is said to be an online game that combines marketing messages which are interactive games, centered on a brand, product or character that associated with the product. The following are indicators for the most effective advergame:
- Easily accessible to everyone
- Entertaining, engaging and holding players' attention between 5-30 minutes
- Easy to understand
- Relevant for related brands or products

- Viral and able to encourage communication with others.

2.3. Video Game

A video game has a goal that must be achieved by the players, accompanied by rules that apply in it. Adams (2014) argues that games are play activities carried out in the context of artificial reality. There are two purposes of the game, game as an entertainment media and serious games as media that aims to solve problems in the real world. The table below is an explanation of the differences between serious games and entertainment games (Susi, et al, 2007).

Table 1. Serious Games & Entertainment Games

	Serious Games	Entertainment Games
Task vs. Rich Experience	Problem solving in focus	Rich experience prefered
Focus	Important element of learning	To have fun
Simulation	Assumptions necessary for workable simulations	Simplified simulation process
Communication	Should reflect natural (i.e., non-perfect) communication	Communication is often perfect

There are various genres in a game, it depends on the choice of decisions given to players in accordance with applicable rules in order to get the desired results. Here are some game genres according to Adams (2014):
- Action and arcade games
  Action games include physical challenge. They often contain simple economic challenges, usually involving collecting objects. Arcade game are action games designed around a bussiness model of earning money trough the player putting coins.

- Adventure games
  Adventure game is an interactive story about character whom the player controls.

- Construction games
  Offer players the chance to build things, such as cities, while operating within economic constraint.

- Puzzle games
  Puzzle game usually provide a series of related challenges, variation on a theme. The type of puzzles offered include recognizing pattern, making logical deduction, or understanding a process.

- Role-Playing games
  Games that allow players to interact with game world in a wider variety of ways than most other genres do and to play a richer role than many games allow.

- Shooter games
  The player in this game are taking actions in the distance. Using ranged weapon. Where the aiming skill is the key, that player must focus of the target.

- Sport games
  Sports games simulate a world the player know a lot about like in a real-life game that turn into a game world.

- Strategy games
  Strategy games include strategic, tactical, and sometimes logistical challenges. Also offering economic and exploration challenges to lengthen the game and give it more variety.

- Vehicle simulation games
  Create the feeling of driving or flying a vehicle, real or imaginary.

2.3. Game Design

Richard Rouse (2001) stated that when game development begins with determining win or lose conditions, the level of difficulty of the game, the control given to the players, and what information will be given to the players. This leads to the pre-production process of the game itself which starts with the Game Design Document (GDD).

2.4. Game Design Document

Adams (2014) states that Game Design Document is a document that contains a collection of concepts from ideas to be made. Including the selection of platform for games, game world design, game artstyle, game character, storytelling, gameplay, user interface design, and level design. Then specifically, the concept will be worked out by each member of the game development team. Furthermore, there will be used visual aspect such as typography, illustration, and the color for the game.

Typography is the means by which a written idea is given a visual form. It is one of the most influential elements that establishes the character and emotional attributes of a design, the visual form it takes dramatically affects the accessibility of an idea and how a reader reacts towards it (Ambrose & Harris, 2009).

Illustration is a picture used to provide a visual explanation. Illustrations is not only to support the story, but also to fill in empty spaces. Illustrations can be in various forms such as sketches, paintings, graphics, caricatures and bitmaps to photographs (Kusrianto, 2009).

And then, Colour is a crucial part in graphic design, but it is something that consumers, clients and designers take for granted. Colour can bring a design to life, help to establish hierarchies, highlight key information and add pace and emotion to a design (Ambrose & Harris, 2009).

For the artstyle, there are 3 categories of graphic styles including abstrac, stylized and realistic. The artstyle is also depends on the gameplay which has been specified before (Keo, 2017).

3. Methodology

3.1. Data

By the results of observations on Sambisari Temple, there are data covering the architecture of the temple along with other objects in the vicinity. As explained by Suwarno (1981) Sambisari Temple consists of one main temple facing three ancillary temples. On the main temple wall there are several niches containing statues, including on the south side of the wall there is the Agastya statue, the east wall side is the Ganesha statue, and the north side is the Durga Mahisasuramardhini statue.

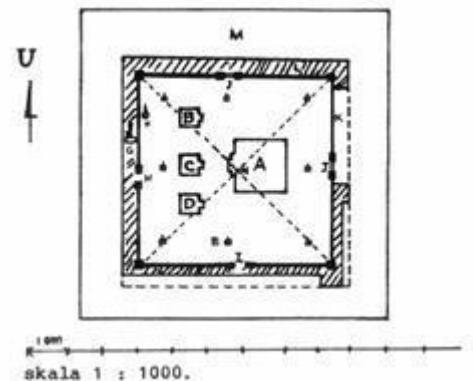**Figure 1.** The Landscape of Sambisari Temple

Figure 2. The Layout of Sambisari Temple

The intended target audience is male and female between the ages of 13 to 21 years and above. The primary target is junior high school and the secondary target is senior high school to the public. With the Socio-economic Status is A-B. Teenagers who use smartphones for everyday purposes and to play games. Focusing on the Z generation according to Putra (2016) the generation that has been familiar with technology since childhood and is familiar with modern gadgets. The generation born in 1995-2010, as a generation that was able to do many activities at one time.

The survey was distributed to 102 respondents. With the results of respondents who are dominated by teenage boys. With junior high school background. Most respondents had visited the tourist destiantion where the temple was, but they had never heard of Sambisari Temple. Most respondents have used smartphones to play games, with the Android operating system. And most of them are choosing the type of 3D games with the stylized 3D artstyle.

Similar games that have been analyzed are titled Diponegoro - Tower Defense, Kurusetra, and Mobile Legend: Bang-bang. These three games were chosen based on content that promote local and even international cultural themes. With a target teenage player, besides that it has game elements including gameplay, story, and visual display that can be compared using comparison matrix. To be used as the reference for the Sambisari temple promotional game.

Figure 3. Screenshot of Diponegoro: Tower Defense

Figure 4. Screenshot of Kurusetra

Figure 5. Screenshot of Mobile Legends: Bang Bang

3.2. Game Concept

The firt step to design the game is starting the pre-production process. The message of this game is to promote Sambisari temple through mobile game media. With the content of historical education, especially on the architecture of the temple and the historical process that occurs in Sambisari Temple.

The creative concept of this game genre adapts to the main genre of adventure with a combination of construction simulation and role-playing games. The use of the genre is based on the results of surveys that have been conducted. Later, players will be positioned as an archaeologist who will travel to find puzzles to be solved. The narration used in the game is a combination of fiction and the setting of the place where the Sambisari Temple is located.

Visual concept that will be used for making this game is a combination of 3D objects with 2D User Interface that uses stylized 3D artstyle. These results are adjusted for a game reference titled Mobile Legends: Bang Bang. The type of typography used is Sans-Serif. Include Dirtyrocks, Nunito, and Supercell Magic. Games will be created using bright and dark color themes, adjusted to the image of the kingdom of the past.

Supporting media is also needed in promoting the game to prospective players. These media needs include x-banner, flyer, e-poster, and merchandise that will be adjusted to the message concept of the game.

3.3. Result

In the production process, there is the making of a game design document as a reference for the design of the game to be made. The following are some parts of the game design document and the results of the production that has been done. As follows:

- Title of Game
  Sambisari The Hidden Temple

Figure 6. Logo of The Game

- Tagline
  "Gali semua dan temukan Sejarahnya!" In english "Dig it and discover its history!"

- Game Genre
  Adventure, construction game, and role-playing game.

- Story
  The game titled Sambisari: The Hidden Temple is a game that introduces players in the world of archeology about the restoration of Sambisari temple that has been buried in the ground. For a while this game tells the story of making the reconstruction of Sambisari Temple. The temple was formerly bur-ied by the material of Mount Merapi when it erupted in 1906 AD. In this game there will be quests, main missions and choices that contain a brief history of Sambisari Temple and its sur-roundings.

- Character Design
  The name Arka taken from the word "Arca" which is a carved stone. Arka's character design is adapted to the clothes of an adventurer and an archaeologist,

with the addition of a traditional Javanese accent. Some of these accents are blankon on the head and batik with parang motifs. the fabric is modified from the type of sapit urang at the waist.

Figure 7. Arka as The Main Character Of The Game

- Environment

The design of the 3D Temple model is adjusted to the shape of the Sambisari Temple. Which there is one main temple with three ancillary temples. Also, there are 3D forms of landscape locations and supporting 3D objects such as trees and tools that used in the game.

Figure 8. The 3D Model of Sambisari Temple

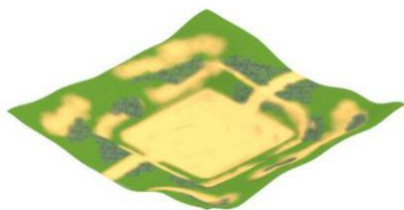**Figure 9.** The Environment Object In The Game

Figure 10. The Landscape Of Sambisari Temple Site.

- User Interface Design

The design of the user interface is adjusted to the visual concept that was previously set on the illustration, typography, and color that will be used in the game.

Figure 11. In-Game Menu Of The Game

Figure 12. In-Game Layout Of The User Interface

- Level Design

This game uses a simple level design, where the player is required to complete every construction of the existing template. In order to collect the gold that con-tained in each temple.
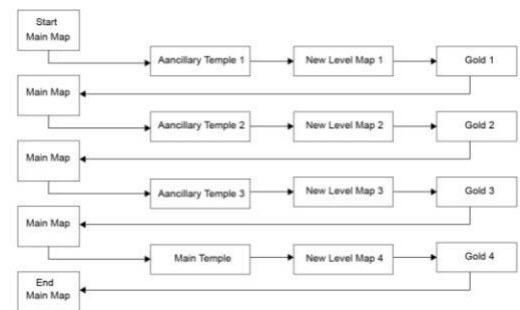

Figure 13. The Level Design On The Game

The Game: Sambisari The Hidden Temple

Figure 14. In-Game Screenshot Of Sambisari The Hidden Temple.

The picture above is the result of the Sambisari The Hid-den Temple promotional game. You can see the user inter-face and games that can be played to be tested on the players.

The next is post-production, the figure below is the ex-ternal media to promote the game Sambisari the Hidden Temple. There are x-banners, flyers, e-posters, and mer-chandise (t-shirts, tumblers, tote bags, stickers, notebooks, and key chains).

Figure 15. The External Media To Promote The Game.

3.4. Discussion

After the user validation process, there are various feedback from the players. This user validation was carried out to 3 respondents. According to the test that has been done, this game still has shortcomings, which lack of tutorials that make players confused how to build the Sambisari Temple.

The visuals of the game are said to be quite in accordance with the concept, especially in creating a 3D environment that makes it easy for players to understand each object. The user interface in the game is quite interesting, but it is nec-essary to increase the layout of each icon size that is adjusted to the screen size of different smartphone.

Respondents are interested in recommending this game to their friends. And respondents said they were interested in visiting Sambisari Temple after playing the game.

4. Conclusion

1. The Sleman Regency Tourism Office stated that the promotion that had been carried out was still not effective in reaching the youth tourist segment. Other media are needed to help promoting Sambisari temple to the youth segment.
2. The aim of this game is to promote as well as to educate and to entertain the prospective tourist. With historical content, especially on the architecture of the temple and the circumstances that occurred during the restoration process of Sambisari Temple.
3. The teenage segment currently has an increasing mass base. Moreover, the digital technology has also advanced. Then the use of digital media has its potential that can be utilized to enhance the devel-opment of tourist attractions.
4. Mobile media platforms such as smartphones are widely used by teenage segment. Smartphone are also widely used to play games and even to access social media. Furthermore, Android is the most popular operating system that used on the smartphone.
5. The genre of games that are loved by many teen-agers are Adventure games, Role-playing Games (RPG) and Construction games. 3D world design is the most popular for the game nowadays.

6. The Supporting media is needed in promoting the game. which must fit into the target segment of the youth market
7. The results of User Validation stated that if this game has an interesting concept to be developed further with 3D visual enhancements, supported with a more interesting storyline and also it needs to easily to understand by the segment of teenage tourists.

REFERENCES

[1] Adams, Ernest. Fundametals of Game Design Third Edition. San Francisco: New Riders, 2014.

[2] Ambrose, Gavin & Paul Harris. The Fundamentals of Graphic Design. Laussane: AVA Publishing SA, 2009.

[3] A.M, Morissan., Periklanan komunikasi pemasaran terpadu. Jakarta: Penerbit Kencana, 2010.

[4] Kotler, Philip & Gary Armstrong. Prinsip-prinsip Pemasaran. Edisi 13. Jilid 1. Jakarta: Erlangga, 2012.

[5] Kusrianto, Adi., Pengantar Desain Komunikasi Visual. Yogyakarta: ANDI, 2009.

[6] Rangkuti, Freddy., Analisis SWOT Teknik Memberdah Ka-sus Bisnis. Jakarta: PT. Gramedia Pustaka Utama, 2010.

[7] Rouse, Richard. Game Design: Theory & Practice Second Edition. Texas: Wordware Publishing, Inc., 2005.

[8] Agustina Halim, Ira. Strategi Integrated Social Media Net-work Game: Penggunaan Advergame dalam Membentuk Customer Brand Engagement. [Online]. Available: http://lib.ui.ac.id/file?file=digital/20301961-T30602%20-%20Strategi%20integrated.pdf., 2012.

[9] CNN. Pariwisata Indonesia Masuk 10 Besar Dunia Versi WTTC. [Online]. Available: https://www.cnnindonesia.com/gaya-hidup/20181003195638-269-335466/pariwisata-indonesia-masuk-10-besar-dunia-versi-wttc, 2015.

[10] Emarketer.com, Mobile Gamer Share in Select Countries in Southeast Asia, by Demographic. [Online]. Available: https://www.emarketer.com/Chart/Mobile-Gamer-Share-Select-Countries-Southeast-Asia-by-Demographic-2016-of-respondents/203165, 2016.

[11] Keo, Mary. Graphical Style in Video Games. [Online]. Available: https://www.theseus.fi/bitstream/handle/10024/133067/Keo_Mary.pdf?sequence=1&isAllowed=y, 2017.

[12] Mortara, Michaela. Learning cultural heritage by serious games. [Online] Available: https://www.researchgate.net/publication/262679319_Learning_cultural_heritage_by_serious_games, 2015.

[13] Surya Putra, Yanuar. Theoretical Review: Teori Perbedaan Generasi. [Online] Available: http://jurnal.stieama.ac.id/index.php/ama/article/viewFile/142/133, 2016.

[14] Susi, Tarja., Johannesson, Mikael. & Backlund, Per., Serious Games – And Overview. [Online]. Available: https://www.diva-portal.org/smash/get/diva2:2416/FULLTEXT01.pdf, 2017.

[15] Suwarno. Peninggalan Purbakala Candi Sambisari yang Unik. [Online]. Available: https://journal.uny.ac.id/index.php/cp/article/view/7385/pdf, 1981.

[16] Undang-Undang Republik Indonesia Nomor 10. Kepa-riwisataan. [Online]. Available: https://www.ekowisata.org/uploads/files/UU_10_2009.pdf, 2009.

[17] Sabatina, Mudrykatun. (2018). Pesona Candi Sambisari Sebagai Objek Wisata di Yogyakarta. [Online]. Available: http://repository.stipram.ac.id/49/1/DCS_172840_Mudrykat un%20Sabatina_Pesona%20Candi%20Sambisari_EDITED_ done.docx, 2018.