International
Conference of
Innovation in Media
& Visual Design

International Conference of Innovation in Media and Visual Design

IMDES
PROCEEDINGS

Universitas Multimedia Nusantara
11th-12th November 2020

Edited by:
Juhri Selamet
Lalitya Talitha Pinasthika

UMN
UNIVERSITAS
MULTIMEDIA
NUSANTARA

cumulus
creative linking

Editorial Team

Editor:
Juhri Selamet, S.ST., M.Des, Universitas Multimedia Nusantara
Lalitya Talitha Pinasthika, S.Ds., M.Ds., Universitas Multimedia Nusantara

Managing Editor:
Friska Natalia, Ph.D, Universitas Multimedia Nusantara
PM Winarno, Universitas Multimedia Nusantara
Ni Made Satvika Iswari, S.T., M.T., Universitas Multimedia Nusantara
Muhammad Cahya Mulya Daulay, S.Sn., M.Ds, Universitas Multimedia Nusantara
Dr Nur Hisham bin Ibrahim, Universiti Teknologi MARA (UiTM)

Reviewer:
Mohammad Rizaldi, S.T., M.Ds., Universitas Multimedia Nusantara, Indonesia
Gideon K. Frederick, S.T., M.Ds., Universitas Multimedia Nusantara, Indonesia
Salima Hakim S.Sn., M.Hum., Universitas Multimedia Nusantara, Indonesia
Agatha Maisie T., S.Sn., M.Ds., Universitas Multimedia Nusantara
Bharoto Yekti, S.Ds., M.A., Universitas Multimedia Nusantara
Dominika Anggraeni Purwaningsih, S.Ds., M.Anim., Universitas Multimedia Nusantara
Nina Hansopaheluwakan, S.Ds., MDes, Ph.D., Universitas Multimedia Nusantara
Dr. Anne Nurfarina, S.Sn., M.Sn., Universitas Multimedia Nusantara
Aditya Satyagraha, S.Sn., M.Ds., Universitas Multimedia Nusantara
Deny Willy Junaidy, SSn, MT, PhD., Institut Teknologi Bandung (ITB)
Beiruo He, M.DES, Birmingham Institute of Fashion and Creative Art
Dr. Fauzan Bin Mustaffa, Multimedia University
Rachapoom Punsongserm, Ph.D, Thammasat University
Safinaz Mustapha, Management and Science University, Malaysia
Kus Sudarsono, S.E., M.Sn., Universitas Multimedia Nusantara, Indonesia

Table of Content

International
Conference of
Innovation in Media
& Visual Design

UI design development for informative mobile game about light pollution

Julia Djatmiko[a*], Lalitya Pinasthika [b]

[a] University of Multimedia Nusantara
[b] University of Multimedia Nusantara
*Corresponding author e-mail: juliakimberly.designer@gmail.com
DOI: https://doi.org/10.31937/imdes.v1i1.1117

Abstract: Light pollution has been an environmental concern in Jakarta and surrounding cities. Despite the negative consequences, Jakarta residents have low to non-existent awareness about light pollution. To raise awareness, the development of informative mobile game with the title MA'LAM is proposed. As one means to develop an ideal gaming experience, User Interface (UI) needs to be developed with usability and aesthetic approach. To implement UI design successfully, a suitable user-centric design method is required. Therefore, Design Thinking was used to develop MA'LAM's UI design as part of User Experience (UX) development process. With a usable and aesthetically pleasing UI, message and information about light pollution could be conveyed through a positive gameplay interaction.

Keywords: UI design, informative mobile game, usability, aesthetic form, light pollution

1. Introduction

International Dark-Sky Association (IDA) defines light pollution as inappropriate/excessive artificial light use with negative environmental impact for humans, wildlife, and earth's climate. Light pollution, voiced as international concern, instigates multiple acts to combat the issue such as Globe at Night Campaign, address on UN's CMS COP13 and 2015's International Year of Light, and the pass of legislative light pollution law in countries like France, Slovenia, and South Korea (Lyytimäki, 2015).

Indonesian state-owned organizations like Jakarta Planetarium and LAPAN/PUSAINSA have voiced concern about light pollution in Jakarta. Despite being the most light-polluted city in Indonesia, most citizens from Jakarta and afflicted satellite cities have low to no awareness about light pollution. The fact is confirmed through personal interview with Widya Sawitar - Jakarta Planetarium Astronomer and light pollution awareness activist – as well as a design problem research conducted by the authors.

It is hypothesized that low awareness is caused by lack of engagement from available public information about light pollution. Creating an informative mobile game titled MA'LAM is proposed as alternative solution to raise awareness about light pollution in Jakarta. MA'LAM is targeted for users aged 16-21, live in Jakarta/surrounding cities, never heard/have misconceptions about light pollution, have access to a smartphone device, and possess interest to play mobile games. Mobile game is chosen due to audio-visual and tactile engagement qualities. UI design is implemented as an alternative to convey intended messages and information within MA'LAM through a positive gaming experience. This paper aims to propose and showcase a practice of improving mobile gaming experience through developing UI by Design Thinking Methodology.

2. Literature Reviews

2.1 Interactive Design

Norman (2013) discusses important interactive design aspects; discoverability and usability/understanding. Discoverability is users' ability to find a design's different features, and ability to access such features with ease. Usability entails understanding functions of a product's main feature, and how to utilize the designed product. User experience, aesthetic form, and quality of interaction need to be considered for any interactive design (p.4-8).

2.2 Usability Factors in Mobile Games

Hussain, Abbas, Abdulwaheed, Mohammed, & Abdulhussein (2015) define usability as interactive design's ability to be understood, learned, operated, and to attract user's attention for completing a certain goal. Usability factors are observable in mobile games' UI and can be categorized as the following:

1. **Learnability:** Degrees of ease users can complete a certain task for the first time / how quick users may improve in completing tasks.
2. **Efficiency:** The time needed to complete a certain task. To measure efficiency, users should already master tasks at hand.
3. **Memorability:** Ease of recalling game rules and mechanism after a time-break or how users may re-establish gaming skills.
4. **Errors:** Quality and quantity of mistakes made while playing a mobile game and how to overcome them.
5. **User Satisfaction:** The measure of users' satisfaction and attitude while playing a mobile game.
6. **Simplicity:** Degree of ease/comfort users experience for a certain task. This factor is also used to assess menu structures and navigation design quality.
7. **Comprehensibility:** Ease of understanding contents within a mobile game that is related to textual information and presentation.

2.3 User Interface Design

Tidwell (2011, p.1) explains User interface (UI) as an interactive medium between human and digital products. UI is not constrained to visual aspects and requires an understanding of user needs, wants, and objectives. Cooper, Reimann, Cronin, & Noessel (2014) states that users perceive attractive interfaces as more usable. It is reasoned that users put more effort into learning what they perceive as desirable interface. The claim parallels Lidwell, Holden, & Butler (2003, p.19), who claims that aesthetic design is considered more usable by users compared to a design without aesthetic value. Furthermore, a design's beauty is measurable through form-follows-function principle, described as a design's beauty which is formed by its functions (p.91). Functions are deemed more objective compared to form, hence they are considered more reliable for measuring a design's quality. Nevertheless, designers must not sacrifice a design's aesthetic aspect to optimize function and vice-versa.

2.4 User Interface Features in Mobile Game

According to Hight & Novak (2007, User Interface in mobile games includes on-screen, peripheral buttons, and device control. Due to varieties of mobile games, UI is adjustable to suit different gaming necessities (p.98). There are some distinct features found in mobile games to complete different tasks described in Table 1.

Table 1 Mobile Game's Basic UI Features

No.	Feature	Function Example
1	Navigation	controlling character's walking, jumping, flying
2	Controlling playable characters	skill activation, accessing inventory
3	Virtual world orientation	accessing map, zoom in / zoom out
4	Inventory management	equip weapons, wear armor, use item
5	Interacting with NPC	engaging in combat, start conversation
6	status monitoring	Health Points, money, experience points
7	Using special items	using keys, opening doors, opening chests
8	Accessing setting option	adjusting visual, language, buttons
9	Saving / loading game data	-
10	Joining / starting multi-player sessions	-
11	Communicating with device	-
12	Finding help / information	-
13	Stopping / quitting from game	-

3. Design Method

Soegaard (2018) suggests that UI development method should be user-centric, as it is supposed to be used by users (p. 7). For developing MA'LAM, Design Thinking was implemented due to its user-centric quality. It consists of 5 different phases which may be repeated non-linearly for iteration purposes as shown in Figure 1.
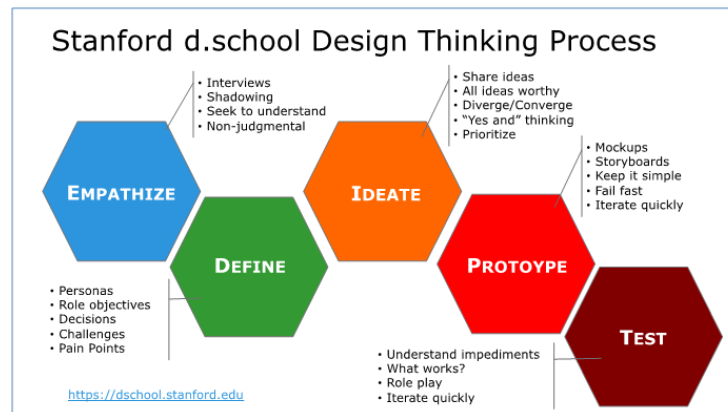

Figure 1   Design Thinking Diagram (https://tinyurl.com/y5otcdvu)

1. **Empathize:** Understanding users' point-of-view and user-centered-problems by observing users' behaviour, direct-interaction engagement, and Immersing in Users' Experience. On this project, targeted users' understanding of light pollution and media preference was gauged through series of digital surveys, interview, and field-observation.
2. **Define:** Converting findings from Empathy Phase into designer's insights and generating problem statements to be used as design solution references. For this phase, data from Empathize phase and literature study findings were combined to pinpoint problems which are addressed throughout the project. To help defining problems, mind mapping process, card-sorting, and user-personas development were utilized during the define phase.
3. **Ideate:** The phase for generating design solution alternatives in which problem-solving are approach with diverse ideas. For generating ideas of gameplay, Hight & Novak's UI features were referenced as game mechanism development. Ideas were also generated in reference to Usability Factors by Hussain, Abbas, Abdulwaheed, Mohammed, & Abdulhussein (2015) as parameters. To organize ideas, card sorting, brain-storming session, and UX diagram development were utilized. Reference Boards were also assembled generate ideas for design's art direction.
4. **Prototype:** Aside from testing functionality, prototyping phase gives a chance to gain empathy, insights, and inspiration. A wide variety/degree of outputs are possible, including sketches and digital mock-ups. For MA'LAM's design project,

the prototyping phase aims to create aesthetic visuals for boosting desirability and usability.

5. **Test:** The purpose is to gather feedback, refine solutions, and learn about users. Test Phase is conducted by creating authentic experiences for users to interact with prototypes. Methods used to gather necessary data were throygh Alpha and Beta tests, followed with distribution of digital survey for each session.

4. Design Process

The design process follows the steps of Design Thinking framework previously described in Part 3 with design deliberations derived from Part 2 of this paper. To summarize, the design process is expressed through the following figure. Furthermore, the process is to be elaborated based on major milestones during the project's design development.
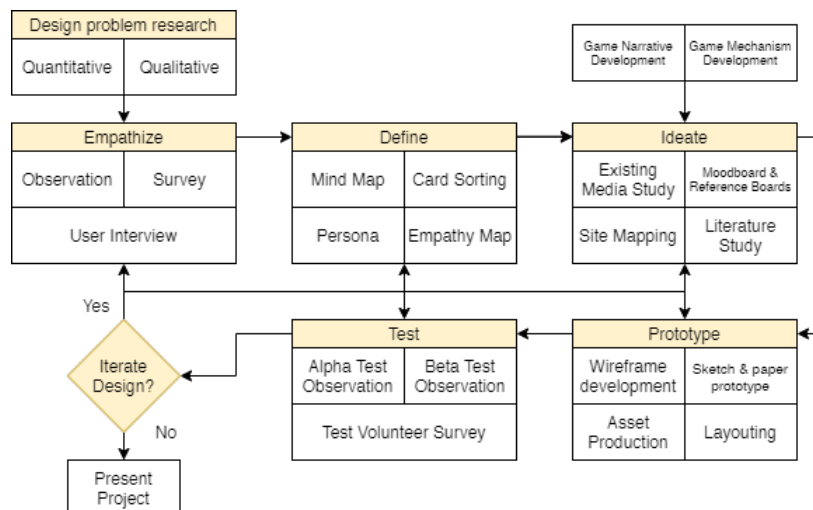

Figure 2   MA'LAM UI Design Process Diagram with Design Thinking Framework

Before starting design process, design problem research was conducted by collecting data about light pollution via Interviews, digital survey, and literature study. After research, Empathize Phase begins with on-site observation in Jakarta, conducting user interview towards targeted design users, and distributing digital survey to validate existing data. The accumulated data was then organized and redefined through generating User Personas and Empathy Map, assisted with brainstorming session via Card Sorting, and creating a mind map about design problems and media alternatives. On Define Phase, three keywords Urban, Vibrant, Sci-Fi were generated.

4.1 Gameplay Mechanism Mapping

Gameplay mechanism is planned before game aesthetics to implement form-follows-function principle. The gameplay mechanism was influenced by MA'LAM's genre (2D platformer, adventure, stealth, puzzle) and game concept (collectible objects and characters, NPC dialogues, and game storytelling to convey information about light pollution). The purpose of mapping is to create a reference for game UI development.
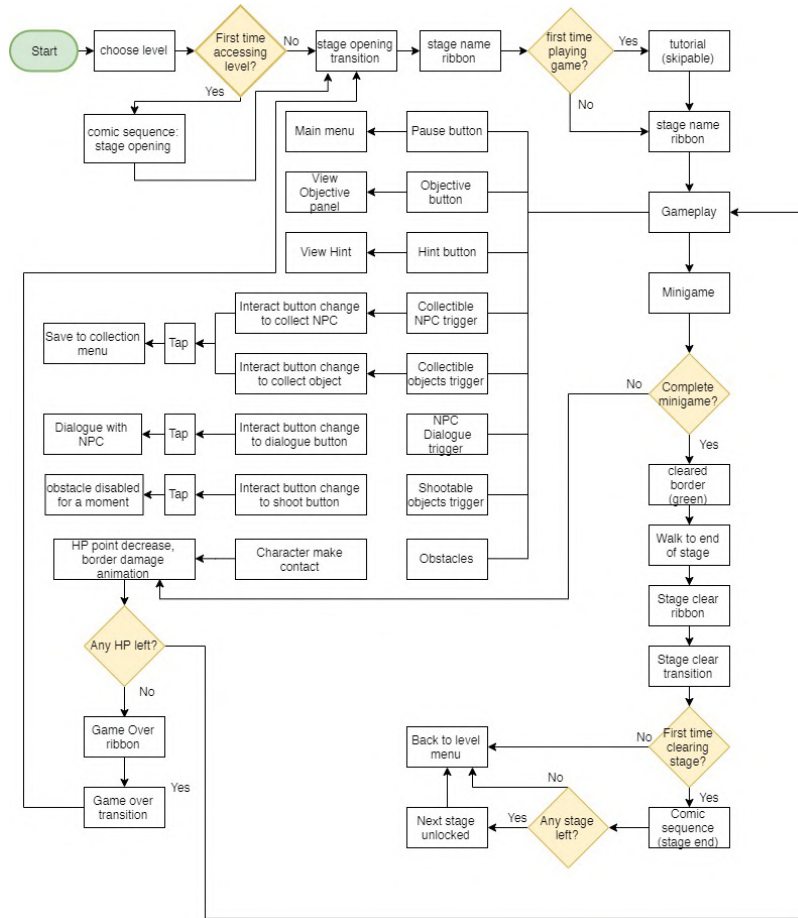
Figure 3   MA'LAM Gameplay Mechanism Flowchart

To summarize, MA'LAM is mapped into gameplay interface and menu interface. Effort for inducing engagement were focused on gameplay interface, while menu interface such as level, collection, and setting menu acts as support to induce gameplay engagement. Gameplay interface were made consistent with adjustment such as stage hint and mini-game layout being made to accommodate MA'LAM's 6 designed levels. Mini-games in the form of puzzle and quiz were designed to add gameplay engagement. In accordance to the game's sci-fi theme, both gameplay and menu interface was mapped to resemble holographic screen that interconnects through layers.

4.2 Art Direction
MA'LAM's mood board content is derived from three keywords generated from Define Phase. Images within the mood boards were also derived from artworks which ambience and style the project designers agreed upon. This implies that the mood board also affect MA'LAM's game character and environment development. For UI development, the mood board was then derived into colour board, typeface reference board, and Interface reference board. Figure 4 shows MA'LAM's designated mood board.
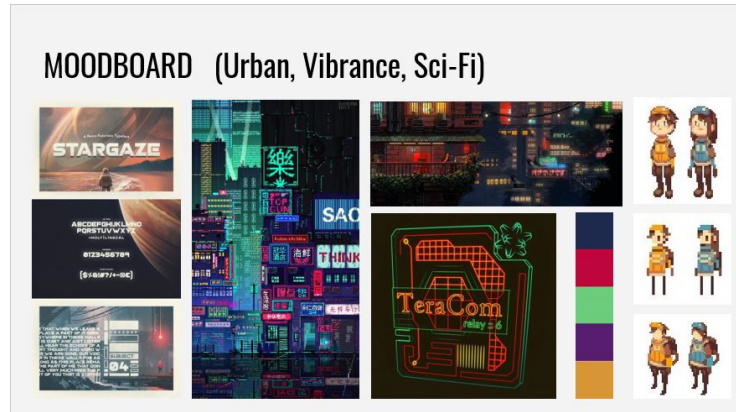
Figure 4   MA'LAM Mood Board

Figure 5   MA'LAM UI Color Palette

In addition, Pixel Art was chosen as art style due to advantages cited by Silber (2015), in particular cutting long-winded development process (by texturing, mapping, or rigging), minimize development errors due to limited human and time resource, and avoiding Uncanny Valley effect on the final artworks. As for the chosen UI color palette, Coleran on Shedroff & Noessel (2012) states Sci-Fi is associated with the color blue. A particular blue shade (#182a4d) is used as MA'LAM's primary UI color. Another colors present are red (#c21f40) to signify danger/error/failure, green (#71c379) to signify safety and success, and yellow (#d99633) to create highlight/grab attention.

Figure 6   MA'LAM UI Reference Board

MA'LAM's UI reference board influences asset aesthetics on later prototyping phase. Shedroff & Noessel (2012) mentioned *Sci-Fi glow* as a distinct characteristic within 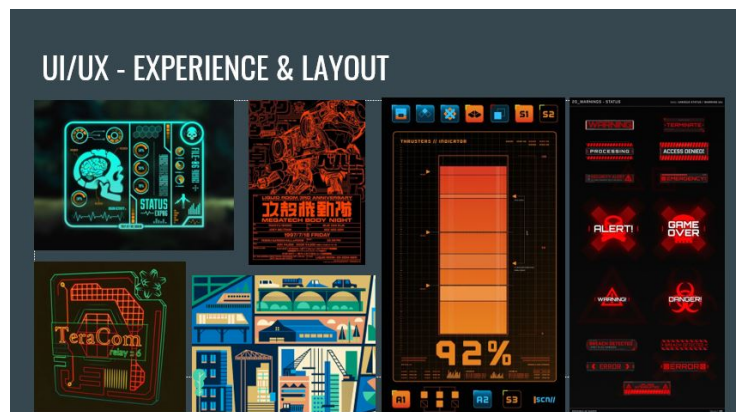the Scifi theme that MA'LAM aims to emulate. Holographic visuals were incorporated to induce the Sci-Fi glow effect on MA'LAM's UI design as shown in Figure 6. Other visual characteristic includes using polygonal shapes (non-rectangular) to induce advanced/sophisticated technology vibe, and manipulating transparency on visual assets to direct users' focus, induce contrast with background image & communicate relationships between layers.

4.3 User Interface Prototyping

Sketches plays an important role within the prototyping phase for integrating form and function within design assets/layouts. For example, UI Icons sketches were produced on Prototype Phase. Icons were made angular with minimum curved lines to accommodate the Pixel-Art style, sketched on a 5 x 5 cm grid paper before digitalization on 128 x 128px *canvas*. Icons were placed on buttons, panels, and interface features, so they were coloured white to induce contrast with the darker background color. Due to chosen pixel art visual style, icons were made with bold geometric lines that put emphasis on shape clarity despite its pixelated form. The Icon design development was documented on Figure 7 and 8.
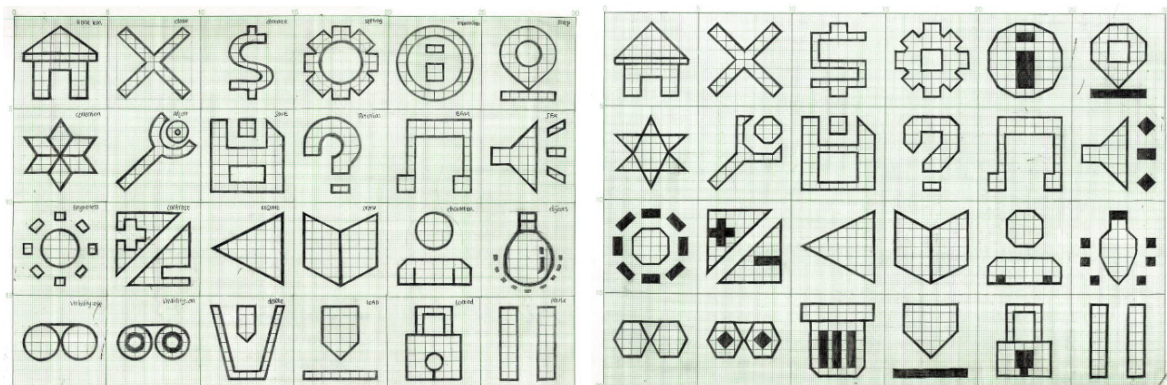

Figure 7   MA'LAM Original (left) and Iterated (right) Icon Sketches
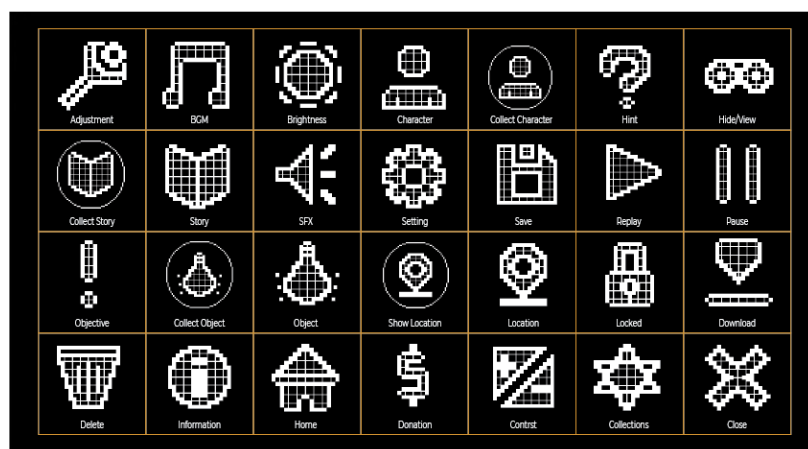
Figure 8   MA'LAM Digitalized UI Icon Set
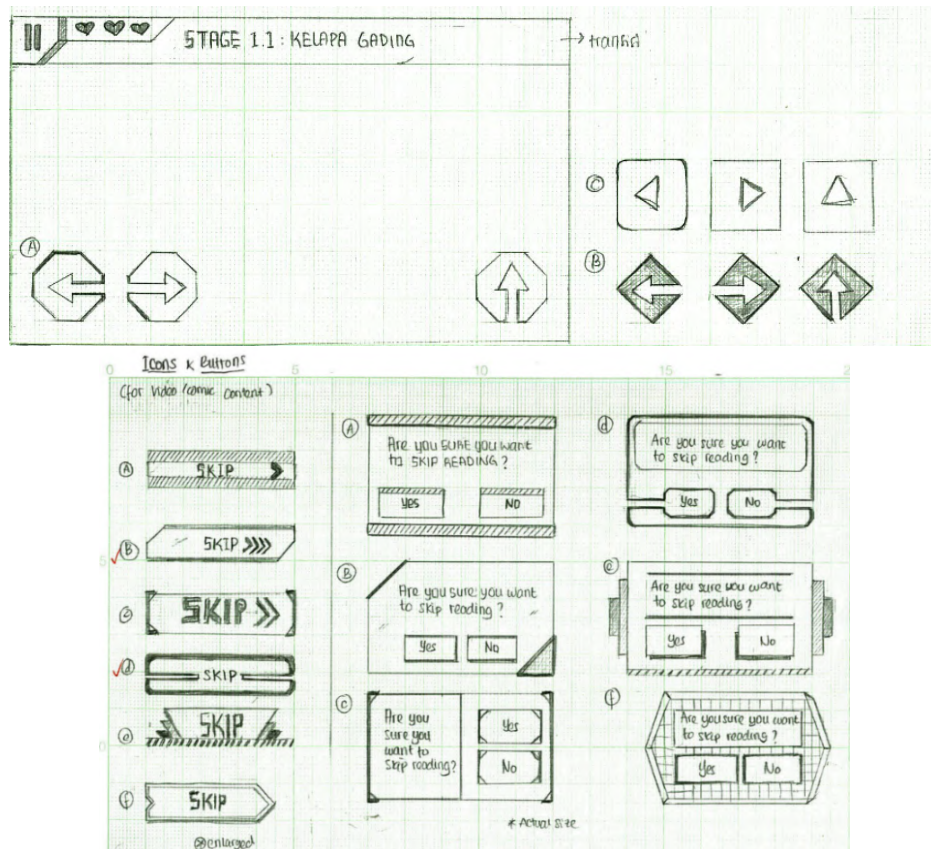
Figure 9 MA'LAM UI Asset Sketches

Figure 10 MA'LAM UI Asset Sketches

Similarly, UI layouts and assets were explored through sketches before digitalization. After UI layouts are finalized with wire-framing and paper prototyping, UI assets were designed on 480 x 270px canvas. The digitalized assets and asset sequences were then exported in PNG format and assembled into finalized layouts. Icons and texts were added after layouting, then complete layouts were exported along with animated UI interface reference. UI assets and layouts were received by contracted programmers for game engine assembly.
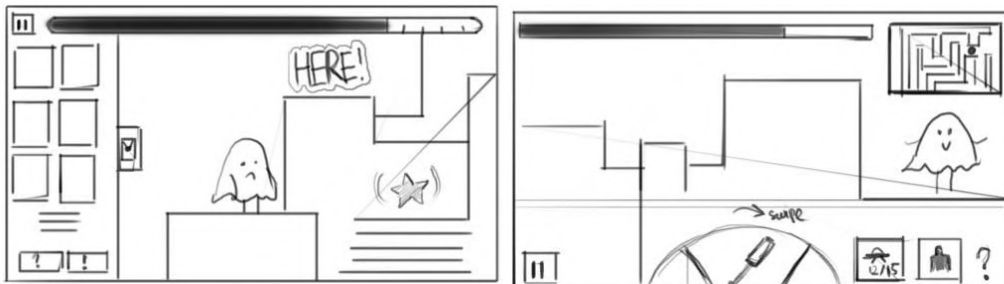
Figure 11 MA'LAM UI Mechanism Sketch (Digital)
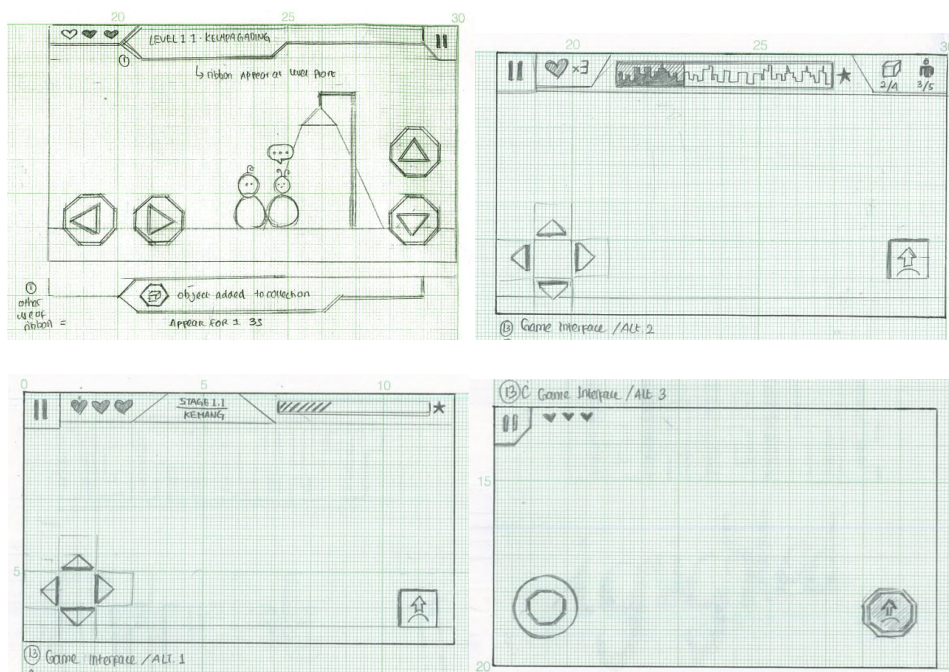
Figure 12 MA'LAM UI Layout Alternatives Sketch

Shown on Figure 11, the first prototype sketch reveals a heavily simplified gameplay interface that accommodates character interaction through touch gestures. But throughout the project, game mechanism was revised in alignment with character and environment design development, thus the later sketches as shown on figure 12 feature a digital toggle buttons for character movement to accommodate a more precise character movement within the zoomed out stage environment.

Figure 13 MA'LAM Digitalized UI Layout

UI prototype was actively iterated based on game engineers' feedback and user test results. Figure 13 shows the final version of gameplay interface that manifests the previously planned holographic sci-fi inspired interface. UI for gameplay evolves in both aesthetic and mechanism based on the collected feedback, such as the size and placement of buttons, revised icon, added interface feature (mission and hint button), and the form and mechanism of HP bar.

5. UI Analysis

The UI Analysis discussed below is related to gameplay mechanism and experience. Analysis is approached through aesthetic (form follows function/function follows form) and usability aspects.

5.1 MA'LAM's UI features

Navigation

Character navigation buttons affect the main character's movements. They give direct feedback when being tapped by changing color from yellow to green. There are 5 buttons to direct up, down, left, right, and jump movements. Navigation buttons were designed with a larger scale compared to other gameplay UI buttons to induce comfort and ease of access.

Directional Navigation Buttons   *Jump Button*

Figure 14 MA'LAM Character Navigation Buttons

Directional buttons (up, down, left, right) as seen on Figure 14 are located on the left side of the screen to be operated with non-dominant hand (for right-handed players), while jump button requiring players' agile interaction is located on the right side. Another difference is directional buttons are operated by holding down buttons, while jump button is operated by quick tapping motion.

Playable Character Control & Inventory Management

Within MA'LAM, there are different types of character interactions such as collecting Non-Playable Characters (NPCs), Collecting Objects, and shooting Obstacles with an unlocked character special ability as shown in Figure 15.

Figure 15 MA'LAM Interaction Button Functions: Collect Character (1), Collect Object (2), Dialogue with NPC (3), Disable Obstacle/Shoot (4)
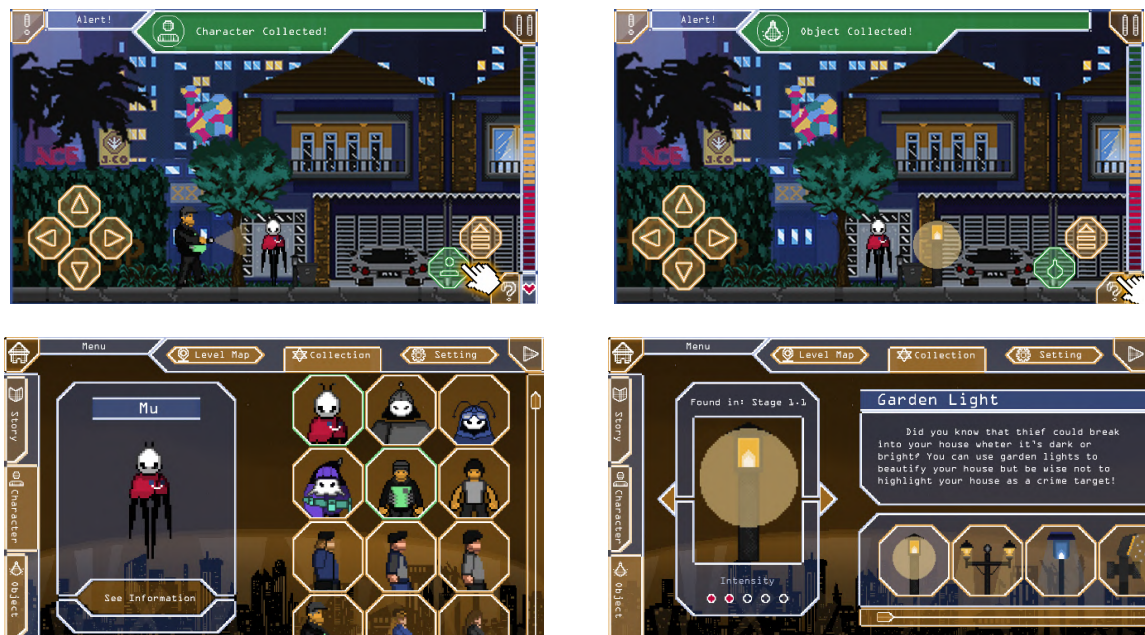

Figure 16 MA'LAM Character & Object Collection Feature: Collected Character/Object Notification Pop-Up on top of gameplay screen (upper left & right), Character Collection Menu Page (lower left), Object Collection Menu Page (lower right)

NPC and object collecting features are activated when players stood on a certain range within target. It is indicated when the icon on interact button changes to a person's profile or a lightbulb as shown in Figure 15 numbered 1 and 2. Collected items are accessible to view from MA'LAM's collection menu feature. The feature is related to MA'LAM's inventory management. After successfully collecting item players are notified through a green-colored pop-up on the top part of gameplay screen. The visualization of collection feature is shown in Figure 16.

Figure 17 MA'LAM Dialogue Sequence Screen Sample

Players can engage in a dialogue sequence with certain characters. The above figure shows a snippet of dialogue sequence on MA'LAM's first level. When dialogue is available, interact button's icon change to a dialogue bubble on a certain range within the targeted character. When dialogue is active, screen will zoom towards the interacting characters, UI buttons and features will be deactivated except for dialogue panel and pause button, and players may tap the dialogue panel to progress the occurring dialogue.

Playable Character Status Monitoring

MA'LAM status monitoring is differentiated into HP monitoring, mission checklist, and stage clear/game-over signifier. HP monitoring feature is linked with stage obstacles and triggered to respond when characters make contact with obstacles. When HP is depleted, HP bar decreases and the screen's border blinks red. HP bar is located on the right border of the screen and is visualized as energy bars with 5 parts from dark green (full) to dark red (almost-empty) as shown in Figure 18.

Figure 18 Red Border - Signify Encounter with Obstacle, HP Bar (right side of screen border)

The animated stage clear/game-over signifier inform players of their status in completing or failing a level. The red Game over signifier is mapped to appear when users' HP bar is depleted to zero. The green stage-cleared signifier is mapped to appear when players succeeded in reaching a stage's end. Visualization of these features is observable in figure 19.
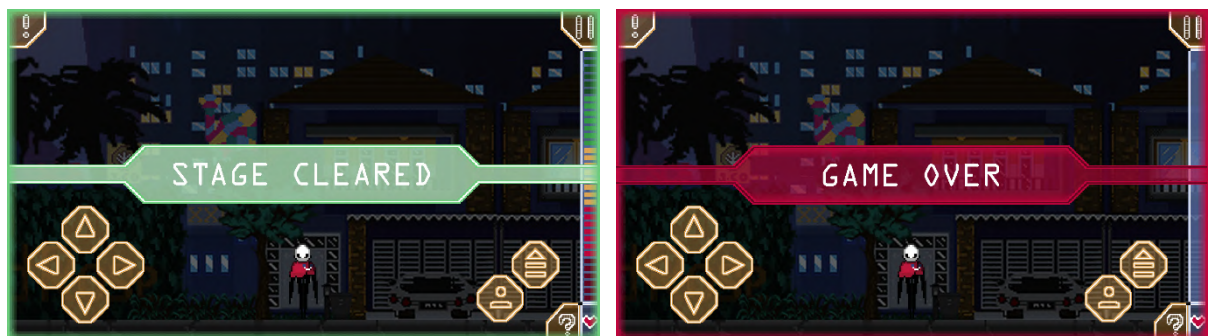

Figure 19 Stage Cleared & Game Over Animated Sequence Screen Capture

Figure 20 Mission Checklist Feature on Gameplay (left) & Level Menu (right)

Figure 20 illustrates Mission Checklist feature. Mission checklist is affordable to access throughout the gameplay and informs players about objectives required to complete within a particular stage. Checklist appears when players tap on mission button at the top left corner of the screen, distinguished by the exclamation mark icon. The stage mission checklist is also viewable from level menu when gameplay is paused.

Finding Help/Information with Tutorial / Virtual World Orientation

Alternative access to game tutorial is shown in Figure 21. Aside from first time starting level 1 of MA'LAM, tutorial sequence can be replayed whenever by accessing Setting – Tutorial Menu from the game's main/pause menu. Game tips and instructions are given within tutorial sequence whenever users tap on device screen. When users do so, tutorial will continue from the present tutorial image frame to the next frame.
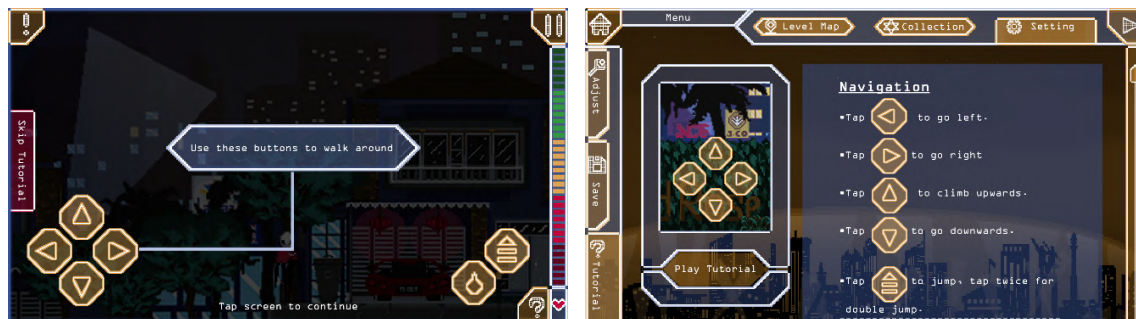
Figure 21 Tutorial Page on Setting Menu (left), Tutorial Sequence Sample (right)
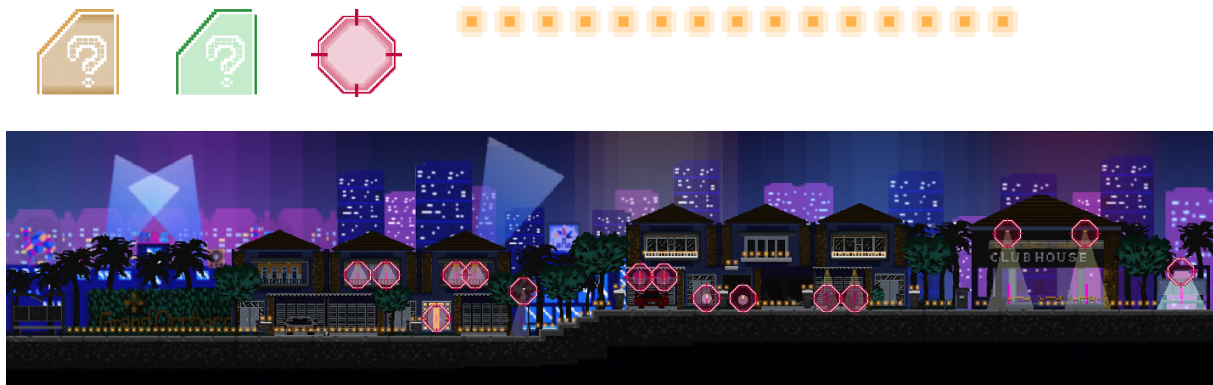
Figure 22 Hint Button (non-active & activated), Hint Signifiers (Red Target & Breadcrumbs), Hint Layer Sample on MA'LAM's First Level (lower picture)

Additional help/information is accessible within gameplay by tapping hint button on the bottom right side of the screen indicated by a question mark icon, expressed in Figure 22. When activated, a layer will appear throughout the current game stage, indicating the locations of obstacles as well as displaying breadcrumbs that direct players toward the end of the stage. Hint feature is related to MA'LAM's virtual world orientation to answer players' difficulty in navigating and differentiating crossable paths within gameplay.

5.2 MA'LAM's Usability

Learnability

Gameplay and UI's learnability are reinforced through game tutorial. Players may learn and improve their skills in playing by experiencing the game first-hand. Based on 26 beta test volunteers' feedbacks, a more detailed and action-guided tutorial is preferred.

Memorability

To support memorability, gameplay navigation is being made intuitive and aided with icons for visualization. To anticipate players forgetting how to operate gameplay, rules and game mechanic explanations are available to view from tutorial page on MA'LAM's setting menu.

Efficiency

Game efficiency was tested by game designers and developers that have already mastered the game mechanism on 6 game levels and 6 mini-games. Testing efficiency aims to shorten MA'LAM's duration of game completion so the full message of the game can be communicated swiftly and game mechanisms can be demonstrated on its full length with ease to game stakeholders.

Errors

Five chances to fail passing obstacles are given within MA'LAM's gameplay. When players fail, they are transported to the start of a level. Although each is relatively short, obstacles and paths are complexly placed for challenge. Difficulty increases as level progresses. To anticipate frustration, hints to navigate stage is offered.

Out of 26 volunteers, 42.3% claimed they often encounter errors due to lagging character movement, hard to maneuver obstacle course, and hard to solve mini-game on the higher levels.

User Satisfaction

User satisfaction is measured from 26 Beta test volunteers' survey entries. 83.8% volunteers felt entertained when playing. 84.6% claimed they don't feel bored while playing and 80.7% feel MA'LAM's gameplay and storyline are intriguing. 88.5% perceive the game's concept as being original. 50% felt exasperated when playing, although 65.5% respondents claim the game is simple and easy to understand, 69.2% felt challenged while playing. Moreover, 50% of volunteers rate the game with a medium difficulty level.

Based on qualitative feedback, MA'LAM gave a nostalgic experience of old-school games they played in childhood. The game is praised for its harmonious and pleasing character, stage, and interface visuals. The positive feedbacks by volunteer proves claim by Cooper, Reimann, Cronin, & Noessel (2014) about aesthetic quality affecting perceived usability. Regarding UI aesthetics, 92.3% volunteers are satisfied with the UI layout, claiming it is comfortable to view.

Simplicity

Simplicity is expressed within gameplay's UI through limited character controlling buttons. For example, there is only one interact button with multipurpose uses. Simplicity is also expressed with limited UI gestures (tapping/ holding down buttons, occasional swiping motion). Simplicity is achieved by designing game mechanism before listing down required UI assets and features so that every UI feature has a distinct necessity and is an integral part of gaming experience.

Comprehensibility

Comprehensibility about game message is communicated through game storytelling and game mechanism. Both are implemented within UI features such as character dialogue, collection menu contents, and mini-games. 80.8% respondents perceive information communicated by MA'LAM as clear and comprehensive, while 76.9% claim they know about light pollution better after playing the game.

5.3 Light Pollution Awareness

Survey with 110 respondents from Empathise Phase reveals that 44.5% claim to be not familiar with light pollution issue in Jakarta. The majority of 55.5% who claims familiarity possess misconceptions about light pollution as shown on collected qualitative data. Interviews from target users reveals that light pollution was discussed at education institutions, but the subject leave no significant impression and are soon forgotten. This claim is supported with the fact that targeted users don't perceive direct disadvantage from light pollution. In-depth interview with Jakarta Planetarium representative reveals insight that one of the main purpose of raising awareness is so that Jakarta Citizens would question the need of using an excessive amount of artificial lighting. But what hinders citizens from taking an act against light pollution is a misconception that light pollution is harmless. Hence, one of MA'LAM's main purpose is to communicate light pollution's harm through gameplay.

Beta test survey conducted after the project is finalized reveals that 80.8% claim to comprehend MA'LAM's intended message. 76.9% agree that they are more aware about light pollution after completing the game. The message was received through gameplay that 50% players perceive as having medium level difficulty. Further collected data reveal 92.3% are satisfied with interface layout which are intended to raise gameplay engagement that triggers heightened perception towards MA'LAM's intended message.

6. Conclusion

MA'LAM is an informative mobile game about light pollution in Jakarta. The game message is conveyed with support from UI design that put a focus on function-aesthetic development and mobile game usability qualities. For development, Design Thinking Method was implemented.

Player's positive engagement with MA'LAM's gameplay is supported by its well-received UI, both within gameplay and related menu features. Positive feedbacks indicate the designed mobile game is a possible alternative media to increase awareness about light pollution issue in Jakarta. It is worth noting that aside from UI alone, players' interaction with game mechanism and storytelling aspects plays a major role to induce engagement.

7. References

Cooper, A., Reimann, R., Cronin, D., Noessel, C. (2014). About face: The essentials of interaction design 4th edition. New Jersey: Wiley.

Hight, J., & Novak, J. (2007). Game development essentials: Game project management. CA: Thomson Delmar Learning.

Hussain, A. B., Abbas, S. A. A., Abdulwaheed, M. S., Mohammed, R. G., & Abdulhussein A. A. (2015). Usability evaluation of mobile game applications: A systematic review. International Journal of Computer and Information Technology, 4(3). https://tinyurl.com/yxzvt6fd

IDA. (n.d.). Light Pollution. https://tinyurl.com/yxnm2sec (Accessed 20 July 2020).

Lidwell, W., Holden, K., & Butler, J. (2003). Universal principles of design. Massachussets: Rockport Publishers.

Lyytimäki J. Towards eco-efficient and enjoyable lighting. Brief for GSDR. 2015. https://tinyurl.com/yym2qoen

Nelson, A. (2015). United Nations proclaims an International Year of Light in 2015. https://tinyurl.com/y4gyvxxs (Accessed 18 July 2020).

Norman, D. (2013). The design of everyday things. NY: Basic Books.

Sawitar, W. (2018). Polusi Cahaya. https://tinyurl.com/y47xvvzl (Accessed 12 September 2019).

Shedroff, N., & Noessel, C. (2012). Make it so. NY: Rosenfeld Media.

Silber, D. (2016). Pixel art for game developers. Boca Raton, FL: CRC Press.

Soegaard, M. (2018). Aesthetics and form need to hold hands. https://tinyurl.com/y6a6uwvt (Accessed 30 September 2019)

Soegaard, M (2018). Basic of user experience design: A UX design book. (n.p.): The Interaction Design Foundation.

Tidwell, J. (2005). Designing interfaces. California: O'reilly Media.

Wuragil, Z. (2019). Polusi Cahaya Bikin Bintang-bintang Samar di Langit Jakarta. https://tinyurl.com/yxn59v93 (Accessed 18 July 2020)

Author (2020). Thesis paper.

About the Authors:

Julia Djatmiko is a Graduate from Universitas Multimedia Nusantara who completed her study in Interaction Design. She completed her Bachelor Degree Final Project that focuses on UI/UX design, advised by Lalitya Pinasthika. This is her first published academic paper.

Lalitya Pinashtika is a design communication visual lecturer in Universitas multimedia nusantara.

International Conference of Innovation in Media & Visual Design

Creating a visual destination brand design for Kotagede's cultural heritage

Elsa Kristina [a],[*], Juhri Selamet[b], Adhreza Brahma[c],[*]

[a-c] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: adhreza.brahma@umn.ac.id; elsakristina008@gmail.com
DOI: https://doi.org/10.31937/imdes.v1i1.1118

Abstract: Kotagede is one of six cultural heritage areas in the Special Region of Yogyakarta, located 6 kms from the center of Yogyakarta city, and the centerpiece of Yogyakarta and Solo. In 2019, CNN International added Kotagede to a list of the 13 most beautiful towns in Asia. The uniqueness and historical and cultural heritage of areas in Kotagede's make it a potential tourist destination. However, Kotagede does not have any visual identity that projects it as a unique tourist destination and historical witness of the Islamic Kingdom of Mataram. This study used Morgan, Pritchard and Pride's methods to develop a destination brand and visual identity for Kotagede. By developing this visual identity design, the authors aim to push Kotagede's image as a historical and cultural destination that may be popular among tourists such that it can have an impact on the tourism and economics sector of Kotagede.

Keywords: Kotagede, cultural heritage area, destination branding, historical and cultural tourism, visual branding, visual design

1. Introduction

Kotagede is a region located 6 km from the center of Yogyakarta with massive potential for cultural and historical tourism due to its various tourist-attracting relics. It was the capital and a historical witness of the 16th century formation of the Islamic Mataram Kingdom. Kotagede region is also the oldest area in Yogyakarta, having existed since the formation of the kingdom of Surakarta and Yogyakarta (Rahardjo, 2019).

In 2019, CNN International included Kotagede on a list of the 13 most beautiful cities in Asia. According to Achmad Charris Zubair, a conservation activist in Kotagede, this is because of the variety of beautiful things, including the uniqueness of various buildings from three time periods that have been preserved until now. The influence of cultural acculturation in Kotagede from the 16th century (Hinduism) to the European colonial era at the beginning of the 20th century is reflected on the face of buildings in the cultural heritage area.

However, the region does not have a brand identity that reflects its potential for cultural heritage tourism in Yogyakarta. Therefore, the authors designed a destination brand that differentiates the region from others and reflects the image of the Kotagede region that would be projected to tourists.

2. Literature Reviews

2.1 Destination Branding
Destination branding is a principle that distinguishes and identifies a place through messages and experiences related to that place so that it can give an inherent impression (Baker, 2007). It involves knowledge of information specific to the destination. One of them includes passing the stage called brand benefit pyramid, which was proposed by Morgan, Pritchard and Pride (2004). This stage aims to determine the brand essence that is owned through the brand personality approach.

2.2 Brand Identity
Wheeler states that brand identity is an identity that belongs to a particular brand so that it can attract and be felt by the five human senses. It is the differentiation of a brand from others in order to ascertain the main concepts the brand wants to carry. During the design process, the various brand elements employed include brand marks, word marks, letterform marks, pictorial marks, abstract marks, emblems and characters (Wheeler, 2018).

2.3 Cultural Heritage
According to the Republic of Indonesia Law No. 11 of 2010 concerning cultural heritage Article 1 number 1, cultural heritage is a heritage of material objects in the form of Cultural Heritage Objects, Cultural Heritage Buildings, Cultural Heritage Structures, Cultural Heritage Sites, and Cultural Heritage Areas on land and/or in water that needs to be preserved

because it has important value for history, science, education, religion, and/or culture through the process of determination. Furthermore, based on RI Law No. 11 of 2010 concerning cultural heritage Article 1 number 6, the Cultural Heritage Area is a geographical space unit that has two or more cultural heritage sites that are located close together and/or show distinctive spatial characteristics.

2.4 Study Area – Kota Gede

Kotagede is a sub-district located 6 kms from the center of Yogyakarta which still has various historical relics of the Islamic Mataram Kingdom from the 16th century. Kotagede has a lot of traditional architecture, one of which is a Javanese-style house and Dutch architecture. Other attractions in the Kotagede area are the Tombs of the Kings of Mataram, Kotagede Market, and the Great Mosque of Kotagede. Kotagede is also famous for its silver and culinary centers (Pesona Indonesia, 2019).

Based on the 2011 decree of the Governor of the Special Region of Yogyakarta Number 186, Kotagede was designated a cultural heritage area that has a core zone, a buffer zone and tangible and intangible potential areas.

According to Santosa (2007), Kotagede is an area that consists of various regions, each of which has its own characteristics and uniqueness (p. 3). Kotagede, which also has a wall that is more than two centuries old, is the result of its construction and is a reference for its successors (p. 4). Until now, there are historical relics that are the former glory of the Islamic Mataram kingdom which can still be seen directly even though it is not free from renovation.

One of them is the tomb of Ki Gedhe Mataram, father of the Panembahan Senapati. Several centuries later, a silver craft was developed which remained known till it reached its heyday in 1970. Although Kotagede is no longer the capital of the sultanate of Mataram, the area is increasingly known as the center of silver handicrafts. Kotagede has become an elite area inhabited by a group called the Kalang people (p. 14). They built houses that were inspired by European architecture but also did not abandon the Javanese cultural identity. The houses are also proof of their status and pride (p. 84).

2.4 Study Objective

Following Morgan, Pritchard, and Pride's (2004) design branding destination strategy, the current design study objective is to develop a set of design guideline for Kotagede, Yogyakarta.

3. Design Method

The design method employed by the author was proposed by Morgan, Pritchard and Pride (2004). The destination branding process is divided into five stages: data collection, brand identity development, brand introduction, implementation, and evaluation and review.

Table 1   Five Phases of Destination Branding.

Phase 1	Market investigation, analysis, and strategic recommendation

Phase 2	Brand identity development
Phase 3	Brand launch and introduction: communicating the vision
Phase 4	Brand implementation
Phase 5	Monitoring, evaluation, and review

Phase 1 – Market investigation, analysis and strategic recommendations. At this stage, a data search process is carried out, one of which is by conducting a survey aimed at gaining a variety of insights into existing tourist destinations from the community, local businesses, and people who have or have never visited these tourist destinations. Phase 2 - Brand identity development. Brand identity development is made after the data collection process. After the data is processed and a concept produced, a brand core can be obtained for processing and implementation. This is done to achieve harmony in all parts of the visual identity process.

Phase 3 - Brand launch and introduction: communicating the vision. The brand's value, launch, and introduction are heavily dependent on the vision for the brand. This can also be applied to the various identity and communication platforms used. Producing an emotional connection requires several things, including credibility, easy delivery, differentiation, and emphasis on conveying the ideas.

Phase 4 - Brand implementation. A brand must have complexities in order for it to become strong. Brand implementation requires the development of a personality for a core brand. Brand personality can be divided into two parts: the head and the heart. The head plays an important role as the conveyer of features, rational values about a brand, while the heart displays the emotional side of the brand. Therefore, the challenge that exists for brands is to make the propositions that are appropriate and still attract the attention of the audience.

Phase 5 - Monitoring, evaluation, and review. After the destination branding process is done, the last step is to monitor, evaluate and review the results of the brand implementation in relation to existing tourist destinations. The success of a branding can be seen by an increase or change in tourists. One supporting factor that supports the success of destination branding is the role of the government, which plays an important role as a promoter and provider of funds. An example of a successful destination branding is that of the Spanish state which applies to various cities in Spain, resulting in an increase in the number of tourist visits and changes in people's views about the country.

4. Design Process

4.1 Design Strategy

After the authors conducted research to collect data, they then proceeded to the second stage: brand identity development. In this phase, the authors concluded on three keywords that describe Kotagede: welcome, acculturation, and historical destination.

The authors also determined the brand proposition for Kotagede as a Cultural Heritage Area, the Old City of Java, and the Living Museum. Furthermore, they also drew a brand benefit pyramid process based on Morgan, Pritchard, and Pride (2004) to better determine the brand essence that will define the determination of the brand personality. After this process, the authors then determine the big idea in this design: "*the hospitality of the acculturation of ancient Javanese culture*."

During this design process, there is:
Identity Designing. In Kotagede, there is a spatial concept called Catur Gatra Tunggal. The concept becomes an important role in Kotagede because it affects life, especially the people in Kotagede. The concept is then the authors developed into a concept that is used to design Kotagede destination branding. The concept of Catur Gatra Tunggal, which was initiated by the founder of the Mataram Sultanate, Danang Sutawijaya, is a mixture of macro cosmos and micro cosmos which is manifested in 4 sides of life that are interconnected as a whole, namely social, economic, religious, cultural. In Javanese culture, the concept is embodied in the city planning or building which is the main core, namely the Keraton which is the center, which is supported by the square, mosque and market (Wibowo, 2014).

Then the process is continued by compiling the design mood board to find out the shapes and colors that are the hallmark of Kotagede as shown in Figure 1.

Figure 1   Kotagede Moodboard.

Using the concept of Catur Gatra Tunggal, the study created the basic form of the Kotagede brand identity in the form of a square. The authors also developed a spatial perspective that characterizes Kotagede as part of the logo. From the mood board, it can be seen that architecture and building layouts are also hallmarks of Kotagede. The authors used the trapezoidal form, which forms the basis of Kotagede's letters of identity. The trapezoid's shape is a form of acculturation that unites three eras that once existed in Kotagede, as shown in Figure 2.

Catur Gatra Tunggal

Perspective

Roof Shape of 3 Era in Kotagede
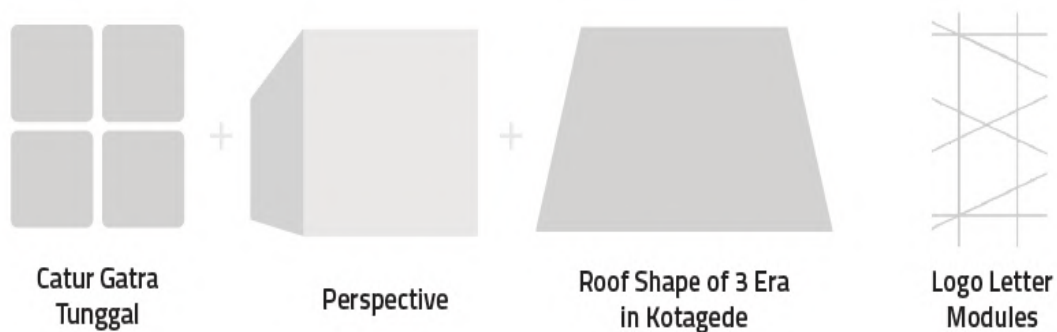
Logo Letter Modules

Figure 2   Identity design process.

The next process is digitalizing the logo to see the final logo. There, the authors added the tagline "The Old Javanese City" as part of the logo so that it displays the position of Kotagede as a cultural heritage area that was once one of the old cities in Java that influenced the development of Indonesia as shown in Figure 3.

Figure 3   Final Logo of Kotagede Destination Brand.

Colour. Past research on color and type font was used as the criteria to choose the brands' visual representatives (Malik, Naeem & Munawar, 2012; Febriani & Selamet, 2020). Therefore, the Authors looked at Kotagede's color identity carefully. Kotagede has a variety of colors that are typical Kotagede colors. The green color in Kotagede symbolizes Islam, which has existed and developed in the region since the days of the sultanate of Mataram. This is consistent with what was stated by Holtzschue (2010). In addition, the color brown is also commonly found and is typical of Kotagede. For example, in the Kotagede Cemetery complex, as well as traditional houses in Kotagede such as Joglo's house. In Kotagede, which is one of the craft centers in Yogyakarta, silver color also can be found, for example in carved silver handicrafts.

As for the color yellow, the authors picked it because yellow is a simplification of the color gold. Based on the theory put forward by Marioka, Stone and Adams (2006), the yellow color also has a philosophical value that is closely related to the kingdom that is wise and optimistic. The authors decided on four main colours: green, yellow, brown and grey as shown in Figure 4, where green is the primary color of Kotagede. The colors are also in harmony with the concept of the Catur Gatra Tunggal, which is the basis of the Kotagede spatial.
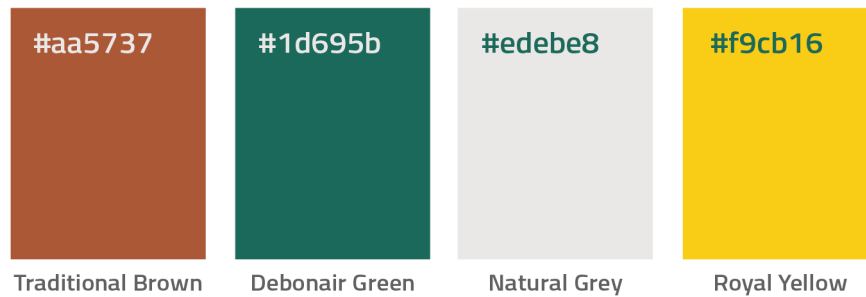
#aa5737	#1d695b	#edebe8	#f9cb16
Traditional Brown	Debonair Green	Natural Grey	Royal Yellow

Figure 4 Color of Kotagede Destination Brand.

Typography. During the typography design, the authors picked the sans serif type with a slightly rigid shape but can highlight the humanist side. This design type was chosen based on various considerations such as being able to project the Kotagede brand as friendly but modern to elevate the existing cultural acculturation. After various considerations, the authors chose the Titillium family typeface because it displays these things well and has good and consistent tracking. The typeface was then used to design all parts of the Kotagede brand typography for headlines, sub headlines, and body copy. I also used this typeface on the Kotagede logo tagline.

Graphic Icon Elements. The authors also designed a graphic icon as part of the Kotagede brand. Based on the concept of Catur Gatra Tunggal, the author also made a module inspired by square shapes as the basis for creating graphic icons. The authors made a 17x17 modular grid of squares. The authors then stylized manual sketches of various buildings and things that are characterize Kotagede. Thereafter, the authors made adjustments to the shape of the module that was made to make it more presentable and appropriate. This was followed by the authors making each end of the module slightly rounded so that it can continue to display the hospitality that the Kotagede brand wants to project. The graphic icons can also be used for various purposes, such as a supergraphic brand in various media, as well as icons that can help in signage design. The authors made various division of rules for each icon so that they can facilitate a user in its application as shown in Figure 5.

| Stationary | Print Media | Packaging |
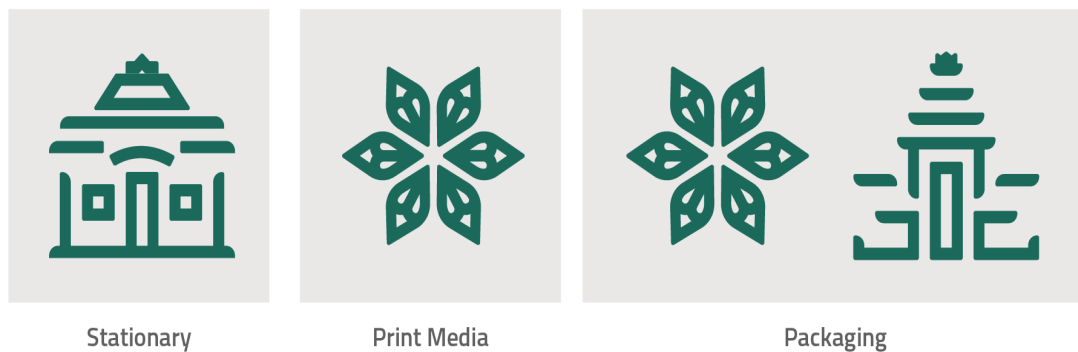
Figure 4   Graphic Icon of Kotagede Destination Brand.

Visual System. During this process, the authors decided on the various visual systems that relate to the style of photography: super graphic and layout configuration. The authors focused on showing the interaction between humans in Kotagede, the culture and traditions, and the beauty of Kotagede architecture. The authors also applied some color editing, using a warm color to highlight Kotagede's hospitality. In addition, the authors also determined the supergraphic style in accordance with their use in each media that was determined. Supergraphic applications have also been determined by enlarging it by placing it in a corner of the media so that it can reduce and complete the design of destination branding.

4.2 Designing Brand Guideline

Designing the Kotagede brand guideline is the next step after designing a brand identity. The purpose of this guideline design is to unite all related and technical matters with the Kotagede brand so that the design and application in various media can be in accordance with these rules and the brand can be built consistently. The authors use the multicolumn grid technique so that it can display varied layouts so that the visuals appear interesting. The final preview of the brand guideline book is done in yellow color for the purpose of contrast as shown in Figure 6.

Figure 6   Kotagede Brand Guideline Book.

4.3 Brand Implementation

After designing the identity and brand guidelines, the next step is the design and application of various media in accordance with the rules set by the authors. Media that are made are divided into identity, information media, and promotional media.

Stationary. For a stationary design, the authors determines various media needed by Kotagede institutionally and internally such as business cards, letterhead, envelopes, folders, agendas, ID cards, and uniforms. The authors used green as the primary color for all Kotagede stationaries. The authors also used graphic icon elements that function as super graphics to complement the design as shown on Figure 7.

Figure 7   Kotagede Stationary.

Print Ads. Print ads were used by the authors as promotional media that can also provide information to the audience directly. All print media have the same elements: headlines, body copy, logos, social media, gradients, and super graphics. The media includes banners and posters as shown on Figure 8. The authors divided the banner into 2 types of orientation—portrait and landscape—which were both set according to the brand guidelines.
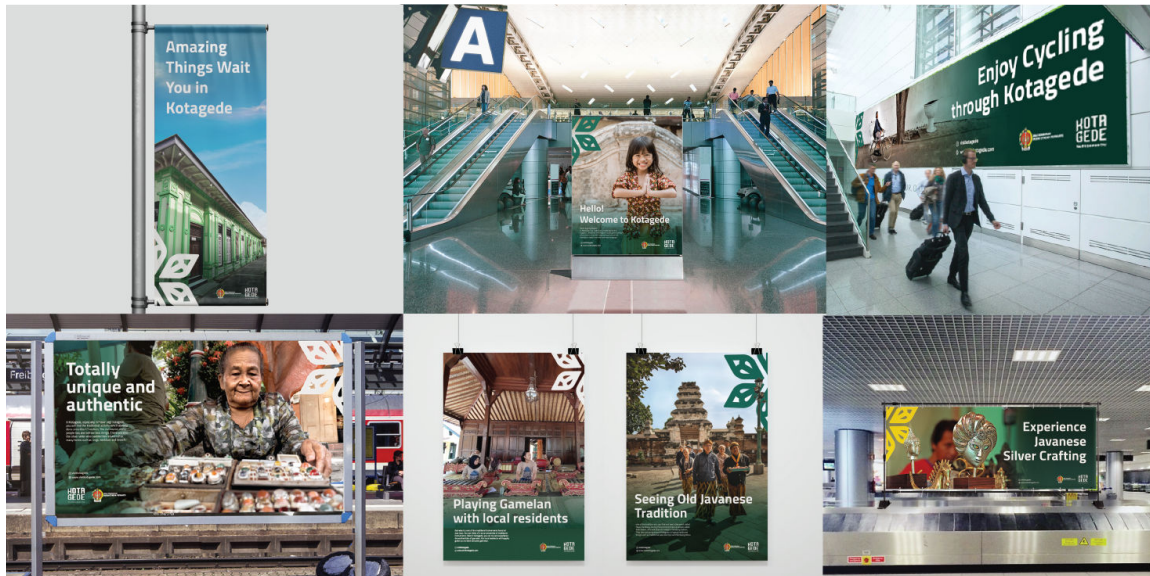
Figure 8   Kotagede Print Ads.

Signage. Signage is needed for information and as a map for tourist areas that are large, they can help tourists find sites in Kotagede when conducting tours. The authors made two types of signage, the tourist information board and navigation tips, by combining graphic icons created by the writer with written information. This was presented in two languages—Indonesian and English—as shown in Figure 9. In this design, the authors also applied the use of grids and visual hierarchy in order to facilitate visitors seeing the information presented.

Figure 9   Kotagede Signage.

Social Media. The authors used social media as an online promotion tool that can reach a wide audience. The authors chose Instagram as the Kotagede social media platform of choice because it is more focused on visual displays and can be supplemented with information provided in the caption. In addition, the tendencies of Instagram users are

in accordance with that of the target audience. Two types of content were used. They are Instagram Post and Instagram Story as shown in Figure 10. In its design, the writer used a modular grid to create both types of social media content. The content created by the authors are in accordance with what information is to be conveyed in the form of information such as fun facts and travel tips and promotions about Kotagede to the audience.

Figure 10 Kotagede Instagram Story and Post.

Guide map and Ticket. The guide map is an information media that can be used by tourists who travel to Kotagede. Unlike signages, the guide map shows the entire areas in Kotagede and has a more compact form. Its small size makes it easy for users to carry a map while traveling in Kotagede as shown in Figure 11. The author also made tickets in the form of cards that can be used to participate in various activities in Kotagede. The author also used a type of modular grid to help design it.

Figure 11 Kotagede Guidemap and Ticket.

Packaging. The authors made two types of packaging for the Kotagede brand: paper bags and jewelry boxes as shown in Figure 12. Both of them were made to complement and support the entire Kotagede destination branding. The authors also put a super graphic display on the packaging and used green as the main color.
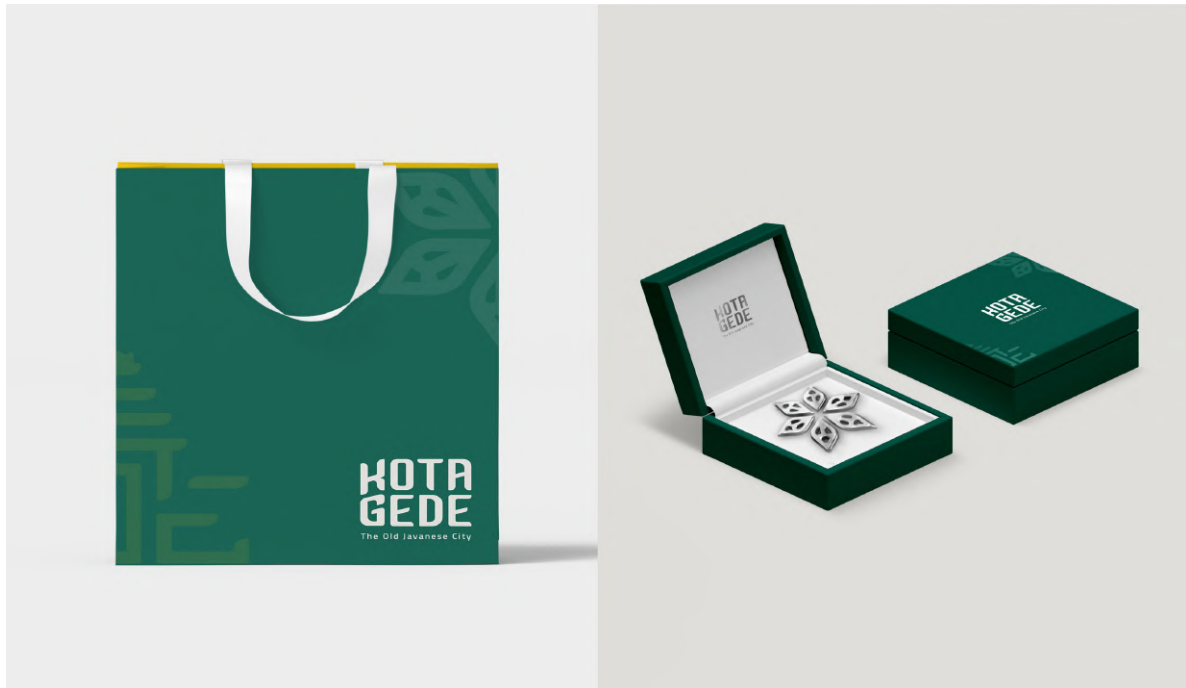
Figure 12 Kotagede Guidemap and Ticket.

Merchandise. The authors made various kinds of merchandise that can be used by tourists and as souvenirs that are the hallmark of Kotagede. The merchandises made include t-shirts, tote bags, enamel pins, mugs, and umbrellas, as shown in Figure 13. The authors also made silvercraft in the form of a Kotagede destination branding, which is the hallmark of Kotagede, which can be used by tourists as well as to re-raise the potential of silvercraft in Kotagede.
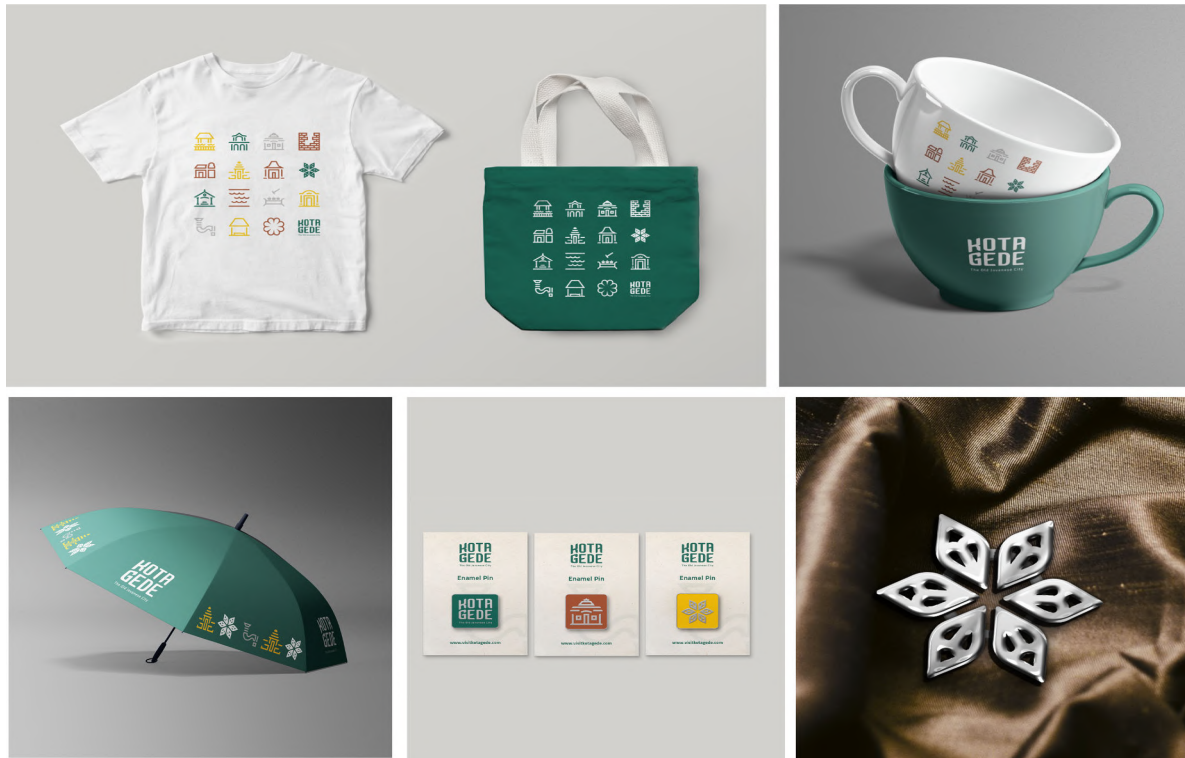
Figure 13 Kotagede Merchandise.

5. Conclusion

The city of Kotagede has existed for a long time and has influenced the historical and cultural development of Indonesia. As a city that became the forerunner to the establishment of two big cities in Java, Kotagede plays an important role for the community, especially in Yogyakarta and Surakarta. Although it is no longer designated as a city, the various relics in the region must be preserved and preserved so that they can be seen and enjoyed by future generations.

On the one hand, to preserve various relics that exist involves all elements of society so that it can be maintained. On the other hand, the conservation process can also provide direct and indirect benefits to the people who live in Kotagede.

Kotagede has been designated as a Cultural Heritage Area and is also one of the tourist destinations in Yogyakarta. The area does not have an official visual identity or brand design that can represent it yet. However, branding the region as a tourist destination can display the uniqueness and characteristics it possesses that can prompt dialogue in design cultural visual identity (Selamet, 2018). In addition, the branding process and promotion will not only introduce Kotagede to the world, but also attract their interest in visiting Kotagede.

With this branding process, it is hoped that Kotagede's image is sold to the target audience and it becomes a recognized and preferred historical and cultural tourist destination. In addition, Kotagede as a tourist destination brand can maintain its existence and authenticity into the future and become a historical and cultural heritage for Indonesia. Future studies should consider adding more design products such as mascot design character to promote a city branding (Satyagraha & Mahatmi, 2019).

5. References

Baker, B. (2007). *Destination branding for small cities: The essentials for successful place branding*. Oregon: Creative Leap Books.

Febriani, D. M., & Selamet, J. (2020). College Students' Intention to Volunteer for Non-profit Organizations: Does Brand Image Make a Difference?. *Journal of Nonprofit & Public Sector Marketing*, 32(2), 166-188. https://doi.org/10.1080/10495142.2019.1656136

Holtzschue, L. (2011). *Understanding colors: An introduction for designers (4th ed*.). New Jersey: John Wiley & Sons Inc.

Malik, M. E., Naeem, B., & Munawar, M. (2012). Brand image: Past, present and future. *Journal of Basic and Applied Scientific Research*, 2(12), 13069-13075.

Morioka, N., Stone, T.L., Adams, S. (2006). *Color Design Workbook: A Real World Guide to Using Color in Graphic Design*. Oxford: Rockport Publishers.

Morgan, N., Pritchard, A., Pride, R. (2004). *Destination branding: Creating the unique destination proposition (2nd ed.).* Oxford: Elsevier Butterworth Heinemann.

Pesona Indonesia. (2019). *Pesona Kotagede.* Diakses pada 9 Februari 2020, dari https://pesona.travel/pesona-kotagede.

Rahardjo, A.D. (2019). *Museum Kalang Kotagede*. Diakses pada 9 Februari 2020, dari https://kebudayaan.jogjakota.go.id/detail/index/860.

Satyagraha, A., & MAHATMI, N. (2019). Study of Mascot Design Character As Part Of City Branding: Malang City. *Ultimart: Jurnal Komunikasi Visual,* 11(2). https://doi.org/10.31937/ultimart.v11i2.1019

Selamet, J. (2018). Indonesian Batik Translation: A Case Study. *The International Journal of Visual Design*, 12(3), 11–17. https://doi.org/10.18848/2325-1581/CGP/v12i03/11-17

Springer, K. (2019). *13 of Asia's most picturesque towns.* Diakses pada 7 Februari 2020. https://edition.cnn.com/travel/article/asia-beautiful-towns/index.html

Wheeler, A. (2018). *Designing brand identity: An essential guide for the entire branding team (5th ed.).* New Jersey: John Wiley & Sons Inc.

Wibowo, E. (2014). *Catur Gatra Tunggal*. Diakses pada 5 Maret 2020. http://heritagekotagede. blogspot.com/2014/11/catur-gatra-tunggal.html.

About the Authors:

Elsa Kristina is a 4-year undergraduate student in the Department of Visual Communication Design, Visual Branding Design track, at Universitas Multimedia Nusantara, Indonesia.

Juhri Selamet is a lecturer in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia. He teaches Visual Design, Design Methods, Design Research and Environmental Graphic Design.

Adhreza Brahma is a lecturer and final project coordinator in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

Which is The Main Concept of Old-Banten Area Development, to be A Cultural Heritage or Not?

Rahmi Elsa Diana[a][*]

[a] Universitas Multimedia Nusantara
*Corresponding author e-mail: rahmi.diana@lecturer.umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1119

Abstract: Old Banten Area is historical tourism in Indonesia with tangible cultural heritage. It was the Banten Sultanate center that ever has the largest settlement and monopolized the trade in Southeast Asia. In 2017 Old-Banten set as a strategic provincial tourism area that excelled in the cultural sector. The program has taken the implementation progress then even get criticized by several parties which one of them written by the Chairman of IAI Banten. The development process has shown the characteristics transformation as opposite with the revitalization term. Based on those critics, the research overviews the characteristics of Old-Banten Area as a cultural heritage and the current cultural tourism development process through interpretive-historical method. The results might be used as an initial framework to understand the importance of place identities preserved in the concept of Old-Banten Area development.

Keywords: Old-Banten Area, Characteristics, Cultural Heritage

1. Introduction

Old Banten area is historical tourism in Indonesia with tangible cultural heritage that allows people to explore and get experience about the others way of life that reflects their customs, religious traditions, and intellectual ideas contained (Borley in Astiti, 2016). Banten Sultanate was one of the largest coastal settlements in the Malay Archipelago in the middle of the 2nd millennium and ever monopolized the trade of corps and natural resources in Southeast Asia. At that time, markets and ports were crowded places with various kinds of goods from China, Gujarat, Bengali, India, Persia, and overseas (www.iseas.edu.sg).

In the RPJMN IV of 2020-2024, one of the presidential strategies programs is increasing the promotion and preserving culture to strengthen the national character and identity, improve the welfare, and influence cultural development. Before those briefs, in Banten Provincial Regulation No.5 of 2017, Old-Banten set as a strategic provincial tourism area that excelled

in the cultural sector. As area supported, Karangantu has developed along as an archipelago fishing port during 2015-2030. In other words, Banten Provincial government has been implementing the Old-Banten Area revitalization process.

However, the progress has get criticized by several parties which one of them written by the Chairman of IAI Banten. According to the opinion, Old-Banten heritages at least consists of three historical facts: (1) the center of Islamic civilization, (2) Hindu-Buddhist and Islamic acculturated culture, and (3) a port city as a relic of international trade. The composition and spatial structure transformation in the Old-Banten Area development and construction was quite the opposite with the revitalization terms. It could even threaten the historical and cultural values (Syuhada, 2018).

Based on the critics, the paper compares relations between the Old-Banten Area as a cultural heritage and the cultural tourism program development. The focus of this paper is to inquiry Old-Banten Area development concept and delivers the transformation look like through historical facts and spatial mapping. The results might be used as an initial framework to understand the importance of place identities preservation in the concept of Old-Banten Area development.

2. Methods

The paper discusses the Old-Banten area as a cultural heritage and the current cultural tourism development process through interpretive-historical method. Set of historical facts presented to provide an overview of Old-Banten spatial understanding. As the research scope, a few of Banten heritage elements were discussed to define spatial and physical characteristics. The research also reviewed and reinterpreted some literature into mapping based as a complementary.

3. Old-Banten Area Based on Administrative System

Old-Banten Area is a historic place that once becomes a political power center of Banten Sultanate. Since the Dutch Indies period, the Old-Banten administratively become a subregion in the Banten Residency. The Old-Banten Area was part of West Java Province after the Republic of Indonesian independence. But then in 2000, Banten Province formed as separated to West Java.

According to Thresnawaty (2009), Banten had been suspected of establishing at least in the middle of the 10th or even 7th century. At an early age, Banten is a Hindu-Buddhist settlement. Until the beginning of 16th century, Banten turns to be a territory of the Sunda Kingdom which is known as Pajajaran, with the area included all of Banten, Kalapa (Jakarta), Bogor to Cirebon, Tegal, Banyumas to Kali Pamali (Cipamali) and Kali Serayu (Ekadjati, 1983: 19). Based on De Graaf, 1974: 120 in The National Research Centre of Archaeology script (1998), in the 16th century, the central government of Banten Sultanate, which was

originally in Banten Girang, was moved to the town of Surasowan on the coast. This shift was intended to facilitate the connection between the north coast of Java with Sumatra's coast.

According to Pamungkas in historia.id (2019), in 1678, there was a conflict between Banten Sultanate and Batavia. Furthermore, there was an internal conflict in the Banten Sultanate that used by VOC as an opportunity to control Banten in 1682. In 1816, the Dutch East Indies government formed the Banten Residency and divided into three regencies: Serang, Lebak and Caringin. The descendants of the sultan were positioned as a Regent (resident assistant) in Serang regency with the Kaibon Palace as the regional center (Regional Secretariat of Banten Province, 2018). But then in 1832 the Banten Last Palace cannoned by the Dutch Indies governors then the center of Serang Regency has moved (BPCB Banten in budaya.kemdikbud.go.id, 2014).

The Old-Banten Area was part of West Java Province after the Republic of Indonesian independence. But then in 2000, Banten Province detached to West Java. Meanwhile, Old-Banten has still listed as one of the districts in the Serang sub-regency. In 2007, Serang city reformed as Serang regency separated that also caused a part of the Old-Banten area has administratively divided (Regional Secretariat of Banten Province, 2018).

4. Place Identities of Old-Banten Area as a Cultural Heritage

Stated in the Republic of Indonesia Law no.11 (2010), there are five kinds of Cultural Heritage includes Object, Building, Structure, Site, and Urban and or Landscape Heritage on land and or on the water that has important value to preserved for history, science, education, religion, and or culture through the determination process. However, based on worldheritage.org, the Old Banten Area registered as Banten Ancient City was a tentative list of the World Heritage Site in 1995 but then delisted in 2015.

As stated on cagarbudaya.kemdikbud.id, since Law no. 11 in 2010 legitimated, Old Banten Area has not registered as National Cultural Heritage yet. The area components, both objects, buildings, and sites, have been gradually registered as progress. *"Soon after the nationally recognized, perhaps the Old-Banten could be a World Heritage Site"* (Kemdikbud in mediabanten.com, 2019).

In 1999, UNESCO adopted the International Cultural Tourism to advocate sustainable tourism that protects heritage resources for future generations. Tourism developments and infrastructure projects should take account of local architectural styles and vernacular traditions. In 2005, Vienna Memorandum defined the historic urban landscape beyond the notions of historic centers, ensembles, surroundings to include the broader territorial and landscape context. The cultural heritage character-defining elements at least consists of land use and pattern, spatial organization, visual relationships, topography and soils, vegetation and all elements of technical infrastructure (van Oers, 2010).

Banten Sultanate was one of the largest coastal settlements in the Malay Archipelago in the middle of the 2nd millennium and ever monopolized the trade of corps and natural resources in Southeast Asia (www.iseas.edu.sg). The vital functions area and the perimeter elements in the Banten Sultanate's golden age have defined unique spatial characters. As an overview, the Old-Banten heritage elements that have tight relations with the current development list in the following table:

Table 1.   The Elements of Old-Banten Area

	Site Elements	Build On (Year)	Source
1.	Cibanten River and Canals	-	Michrob and Chudari, 1993
2.	Ports and Markets	Before 16th AC	Guillot, 2008 & Yakin, 2014
3.	Banten Grand Mosque (BGM) and the *Alun-alun* Public Space	1552-1570	Thresnawaty, 2009
4.	Surosowan Royal Palace	1552-1570	Thresnawaty, 2009
5.	Tasikardi Lake and "Pengindelan" Filtration System	1570-1580	BPCB Banten, 2014
6.	Minaret & Tiyamah Building around BGM	1660-1678	Michrob and Chudari, 1993
7.	Speelwijk Fortress	1816	BPCB Banten, 2014
8.	Kaibon Second Palace	1809-1815	BPCB Banten, 2014
9.	The Great Post Way	1808	Kampherbeek, 2015
10.	Railway	1896	Kereta Api Anak Bangsa, 2016

(Source: Analysis, 2020)

4.1 16th - 18th Centuries: City Development during Banten Sultanate Era

Figure 1. Banten in the 17th century. A bustling port city, with the palace on the left side of the background (www.warwickaseanconference.net)

Banten Sultanate was one of the largest coastal settlements in the Malay Archipelago in the middle of the 2nd millennium and ever monopolized the trade of corps and natural resources in Southeast Asian. (www.iseas.edu.sg). Yakin (2014) explained the Dutch sent expeditionary troops led by Cornelis de Houtman to explore the archipelago. Landed on Banten in 1596, Cornelis de Houtman described Banten as *Amsterdam van Java*, with the economic success in pepper and rice trade, invited Europeans and Asians to look for the fortune. At that time, markets and ports were crowded places with various kinds of goods from China, Gujarat, Bengali, India, Persia, and overseas (www.iseas.edu.sg). According to French historian Claude Guillot, the golden and glory peak of Banten was in the governments' economical and political policies.
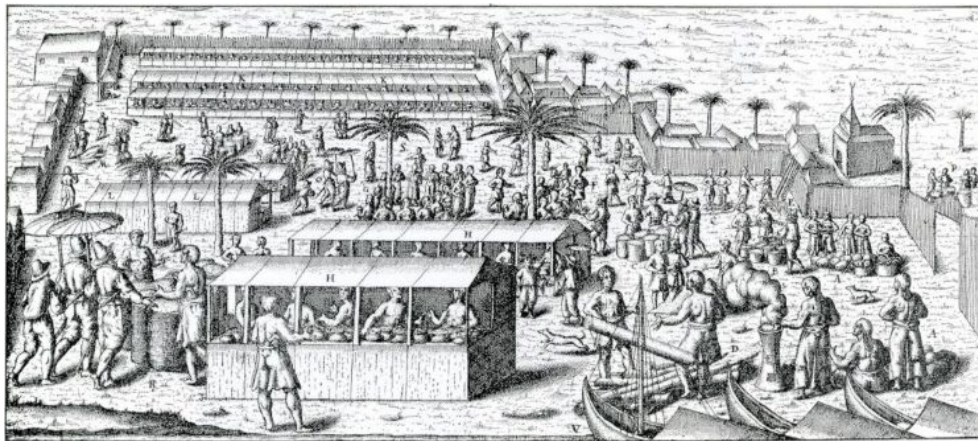
Figure 2. A market situation in Banten, 1598 (John Guy on jalurrempah.kompas.id)

Guillot (2008) describes that Banten has a large berth in the bay area. There were two important ports in Banten near the two streams of the Cibanten river; international port at the west and a regional port named Karangantu. Banten-Old Area is located between the two streams, which form a delta. A stream flowed in the delta, united the two other streams. Michrob and Chudari (1993) narrated the Cibanten river stream down in the middle of the Old Banten area that ships, junks, and gales sail across. There was also a streamlet surround the city that only gales sail over.

Michrob and Chudari (1993), stated that the physical development of the Old Banten area was initiated in 1525. At the time of moving the center of the Banten government to the coast, Syarif Hidayatullah determined the position of the palace, market, and the *Alun-alun* public space which had to be built near Cibanten river. The development of the area was constructed during the leadership of Maulana Hasanuddin (1552-1570) by building the Surosowan palace complex called *Gedong Kedaton Pakuwon* and mosques. Guillot (2008) describe the palace as a Traditional Javanese Palace Architectural Style with a *pendopo,* gazebo with four pillars spaced 40 feet from each other used as a public hall.

The complex of Banten Grand Mosque is a Javanese, Chinese and Dutch acculturated architectural styles. The Banten Grand Mosque is a worship place that almost rectangular shaped and wooden log constructed. The roof resembles a tower, consists of five

overlapping levels. The first roof exceeds the place of worship widen. The next roofs get smaller and pointed at the very top. According to Michrob and Chudari (1993), at the next development, Hendrik Lucasz Cardeel, built a minaret and *tiyamah* meeting hall around the Banten Grand Mosque to support government, security and education center.

Figure 3. Left: Banten Grand Mosque, 1882-1889; Right: Tasikardi Lake, 1933
(Source : collectie.wereldculturen.nl)

Guillot (2008) said two complementary attributes in the Javanese Palace precisely the *krapyak* zoo and the *taman sari* park. In Banten, the *taman sari* park is referred to as *Kebon Alas* (wild garden) in the middle of the Tasikardi Lake. BPCB Banten in budaya.kemdikbud.go.id (2014) mentioned that Maulana Yusuf (1570-1580) built a 6.5 ha artificial dam, named Tasikardi Lake that was used as a reservoir to holds water from the Cibanten River to flow to the rice fields and the Surosowan Royal Palace for daily needs. Water purification carried out using a unique and complex water filtration system, which was called *pengindelan. Pengindelan* was a bunker-like building to filter the water.

According to Michrob and Chudari (1993), two stone bridges were built, to the north and the east of the palace to cross from the king's city to the Karangantu market. The bridge is known as the *Rante* chain bridge (Isnaeni in historia.id, 2012). In early 1677 Cakradana constructed the zigzag shape fortress around the Old-Banten, built on sand. *"In the middle of the 16th century, Banten is the only city in the archipelago has a brick fortress that surrounds the king's city",* wrote Guillot. This unique fortress could last for more than a century.

In the Banten Sultanate Era, the islamic government centralized in the Banten Grand Mosque and Surosowan Royal Palace area. River and canals become the primary transportation infrastructure for both trade-commodities and people. The settlement attends to follow the structure of the waterway and is divided into an ethnical kampong system. The spatial structure on the area of Banten sultanate interpreted as picture follows.

Figure 4. Old-Banten Area Spatial Structure in the Banten Sultanate Era
Source: De Bry (1599) traced on google maps, reinterpreted by the Author (2020)

4.2 19th century: Old Banten Area under VOC Reign

The up and down of trade during the Banten Sultanate were closely related to the existence of the VOC *(Vereenigde Oostindische Compagnie)* Dutch Company in Jayakarta since 1610. At that time, the Sultans of Banten was often opposed to the VOC regarding trade interests, so they were very strict in determining the policies (Yakin, 2014).

In 1808, Daendels, the Governor-General of VOC Dutch East Indies, rearranged the public administration infrastructure, both in Batavia and over the East Indies, and then planned the construction of *De Groote Postweg* The Anyer-Panarukan Great Post Way project. The construction plan of The Great Post Way caused a conflict between the Banten Sultanate and the Dutch East Indies, ended up with the Surosowan destroyed (Marihandono, 2008).

Figure 5. De Groote Postweg / The Great Post Way (Kampherbeek, 2015 in www.erickampherbeek.nl)

Around 1809-1815, Sultan Syafiuddin established the Kaibon Palace in Kroya Village, about 500 meters southeast of the Surosowan Royal Palace, that passed by The Great Post Way.

Cibanten river streams down on the south side. Kaibon name came from the word of *ka-ibu-an* (mother-like) built for the Sultan's mother, Queen Aisyah, who hold the government in a while because when Sultan Syafiuddin died, his son as a successor was only five months old. (BPCB Banten in Budaya.kemdikbud.go.id, 2014). In 1832, the Kaibon Palace cannoned by the Dutch governors, only the building foundation and the left side of entrance left (BPCB Banten in budaya.kemdikbud.go.id, 2014). The Dutch governors also built a fortress near the Karangantu market, constructed by Cardeel (Michrob and Chudari, 1993).
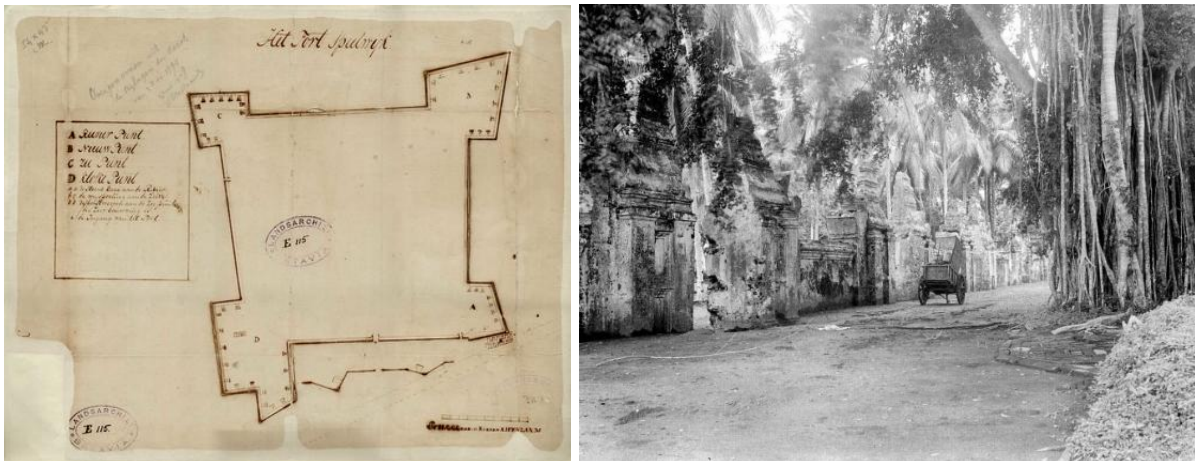

Figure 6. Left: Speelwijk Fortress Plan, 1790-1965 (Source: www.bantenprov.go.id)
Right: The Ruin of Keraton Kaibon Second Palace, 1933 (Source : collectie.wereldculturen.nl)

Then in 1896, VOC constructed a railway from Batavia to Rangkas Bitung-Cilegon-Anyer Kidul as a commodities transportation system. One of the stations was Karangantu station, near the Karangantu market (Kereta Api Anak Bangsa, 2016).

The ruin of Banten Sultanate Palaces both of Surosowan and Kaibon strengthens VOC politics. The ruin also influences the canals structure system, especially toward Tasikardi Lake. Tasikardi Lake and its *Pengindelan* filtration system are no longer used as a water reservoir. Furthermore, the construction of The Great Post Way and the railway slowly replace the maritime culture. These become the primary transportation infrastructure to move trade-commodities and people, replace the river and all its canals. The Great Post Way passed the Dutch lodges in the north of the Old-Banten area.

The Banten Recidency formation and the movement of Residencial government central influenced the Old-Banten area. The inhabitants around gradually abandoned the kampongs. The Old-Banten area could be considered as a lodge terminal located between Batavia as the central government and Merak Port in Anyer that is linked by The Great Post Way. As the effects, the Karangantu market and port decreased its function from serving international needs before to the regional needs. The river and canals used as a fishing boat route, no more intensely used. The Old-Banten area slowly becomes a historical city to the pilgrims. The spatial structure on the VOC reign is interpreted as picture below.
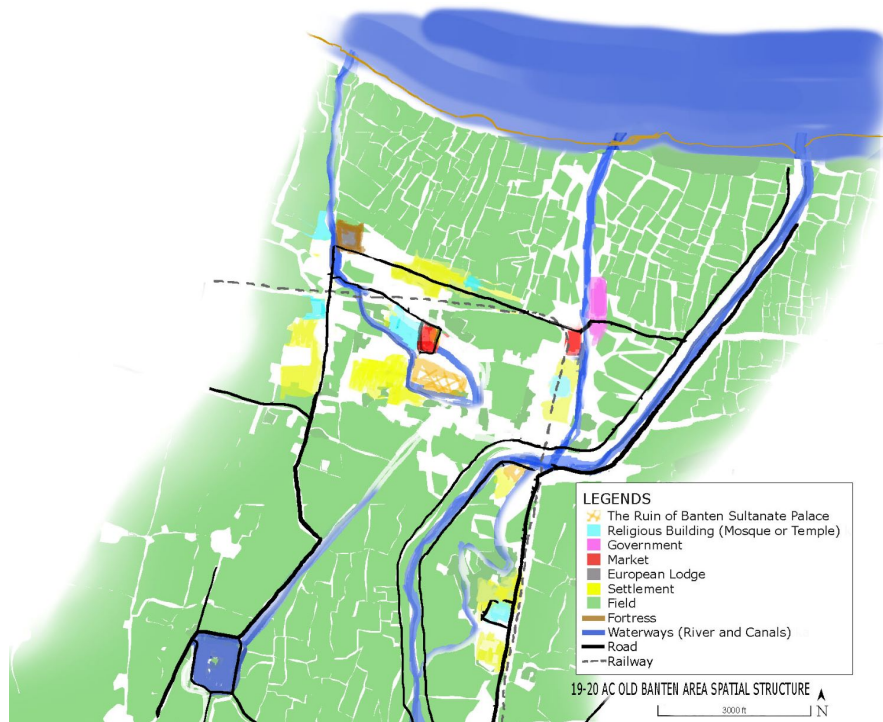
Figure 7. Old-Banten Area Spatial Structure in the Dutch Indies Period
     Source: The National Research Center of Archaeology (1998) traced on google maps,
     reinterpreted by the Author (2020)

6. The Development of Old Banten Area as a Cultural Tourism

In the RPJMN IV of 2020-2024, one of the presidential strategies programs is increasing the promotion and preserving culture to strengthen the national character and identity, improve the welfare, and influence cultural development. By those briefs, in Banten Provincial Regulation No.5 of 2017, Old-Banten Area set as a strategic provincial tourism area that excelled in the cultural sector. As areas supported, Karangantu was developed along as an archipelago fishing port during 2015-2030. In the provincial plan, during 2011-2030 Old-Banten developed to be a cultural tourism area.

According to detakbanten.com (2018), the revitalization of the Old-Banten Area had held under Serang Regency then transferred to Banten provincial government as recommended by The Ministry of Education and Culture. Referred to the Law no. 11 in 2010, revitalization is a development activity aiming to regenerate the important values of the Cultural Heritage by adjusting the new spatial functions in line with the principles of preservation and cultural values of society. Currently, Banten Provincial government has been implementing the Old-Banten Area revitalization process and even has get criticized because of preservation concept misunderstanding.

Regarding the Old-Banten elements and physical characteristics, as the figure 8 shown, the development program has taken the following steps:

1. Informal sector relocation and the landscape construction of the *Alun-alun* public space around the Banten Grand Mosque (www.faktabanten.co.id, 2018 & www.rmco.id, 2019)

2. Site preparation and land clearing for Sukadiri terminal and Old Banten New Market (www.detakbanten.com, 2018)

3. The dredging and construction of a canal around the Surosowan Royal Palace (pembangunan.dpupr.org)

Figure 8. Up Left: Alun-Alun Landscape (Source: Bangkit, 2019 on google maps);
   Down Left: Informal Sector Relocation (Source: www.faktabanten.co.id);
   Up Right: Sukadiri Terminal Site Preparation (Source: www.detakbanten.com);
   Down Right: Canal Dredging and Construction (Source: www.pembangunan.dpupr.org)

The most criticized physical construction was *Alun-alun* landscape. *Alun-alun* had been used as a temporal place to accommodate various functions during the Banten Sultanate era. *Alun-alun* located in the east of Banten Grand Mosque complex which has Javanese, Chinese, and Dutch acculturated architectural style. According to Syuhada (2018), now *Alun-alun* is decorated with a non-historic element that contradicts the Banten heritages. The granite pavement and the umbrella-like columns are prominently visible. Those elements precisely represent the characters of the Nabawi mosque in the middle-east. The design tends to eliminate the physical characters of Banten heritage.

The development also might affect the spatial character of the Old-Banten through the following plan:

1. The relocation discourse of Karangantu market (tangerangexpres.co.id, 2019)

2. The tourism-support area landscape design in Kasunyatan Village and the new roads construction plan (Agung, 2018)

Until the early year of 2020, the Karangantu market relocation plan has rejected by the community and the Serang City DPRD Regional Government (setdprd.serangkota.go.id, 2020).

Figure 9. Left: New Road Planning; Right: Tourism Support Area Design (Source: Agung, 2018)

The spatial design and plan at least consist of support-tourism area design, and a new construction road plan. The government tends to revitalize the Old-Banten area, but actually, the development progress would threaten the spatial structure of Old-Banten city (Syuhada, 2018). Instead, the potential vital elements like the waterway transportation route, Karangantu port and market, and the Tasikardi Lake did not get special treatment yet. Those spatial elements were potentially define the Old-Banten characters to enhance the historical and cultural values. The development even transform the Old-Banten spatial structure to the new one as interpreted in figure 11.
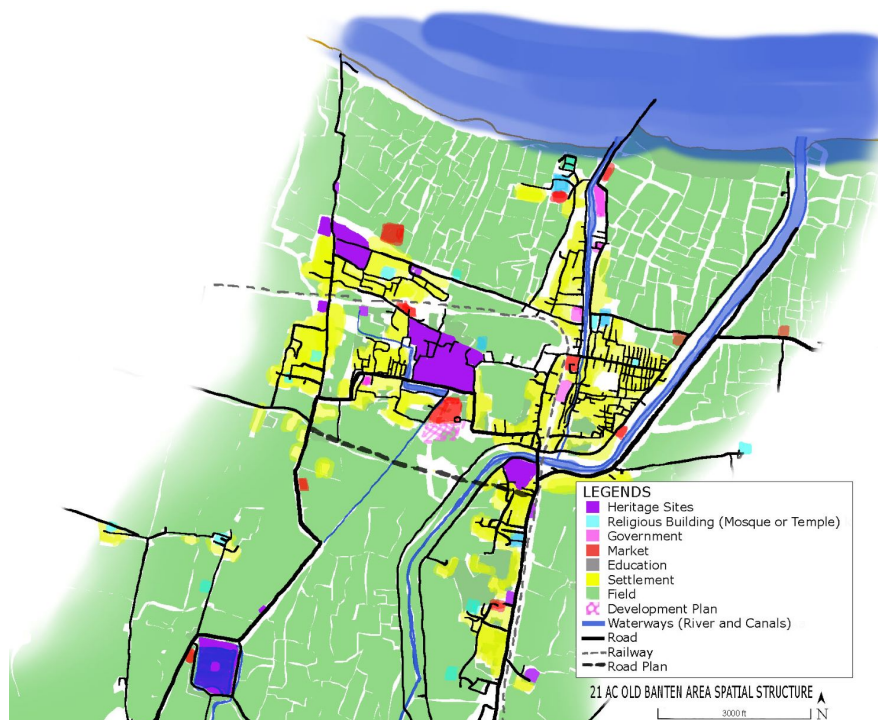

Figure 10. The Current Development of Old Banten Area Spatial Structure.
Source: Agung (2018) and google maps, reinterpreted by the Author (2020).

5. Conclusions and Recommendations

The Old-Banten Area development program mainly focuses on physical construction. The new functions development would threaten the spatial structure of Old-Banten Area. Instead, the vital elements did not get special attention yet. As a revitalization-term contradictive, these policies even might transform the Old-Banten spatial structure to the new one. The question to ask, *"Which is the main concept of Old-Banten Area development, to be a cultural heritage or not?"* If it yes, so the development would need a comprehensive evaluation mainly in the heritage preservation concept.

This paper is limited to reveals the critics through historical facts and conducts the comparison between the development and heritage term definitions. The spatial character mapping is used to reinterprets the heritage elements based on several literatures. Furthermore, it might need an integrated and comprehensive study to determine the whole heritage area.

6. References

Astiti, N.K.A. (2016) in Jurnal Destinasi Kepariwisataan Indonesia Vol 1 No 1 page 1-26. *Management of Old Sites Banten as Culture Tourist Destination to Enhance National Tourists Movement.* Jakarta : Minstry of Tourism.

Agung, A.S.E.G. (2018). *Publikasi Informasi Revitalisasi Cagar Budaya Banten Lama.* Serang: Badan Perencanaan dan Pembangunan Daerah.

BPCB Banten. (2014). *Keraton Kaibon, Banten Lama.* Retrieved August 23, 2020, from https://kebudayaan.kemdikbud.go.id/bpcbbanten/keraton-kaibon-banten-lama.

BPCB Banten. (2014). *Sistem Pengaturan Air Bersih pada Masa Kesultanan Banten.* Retrieved August 23, 2020, from https://kebudayaan.kemdikbud.go.id/bpcbbanten/sistem-pengaturan-air-bersih-pada-masa-kesultanan-banten.

BPCB Banten. (2019). *Pengupasan Sebelah Utara Keraton Surosowan BPCB Banten Resmi Jalin Kerja Sama dengan Universitas Indonesia.* Retrieved October 21, 2020, from https://kebudayaan.kemdikbud.go.id/bpcbbanten/pengupasan-sebelah-utara-keraton-surosowan-bpcb-banten-resmi-kerja-sama-dengan-ui.

Guillot, C. (2008). *Banten. Sejarah Peradaban Abad X – XVII.* Jakarta: Kepustakaan Populer Gramedia.

Herman. (2018). *Wagub Banten Meninjau Progress Revitalisasi Banten Lama.* Retrieved August 25, 2020, from https://www.detakbanten.com/banten/11327-wagub-banten-meninjau-progress-revitalisasi-banten-lama.

Isnaeni, H. F. (2012). *Arsitek Kesultanan Banten.* Retrieved August 23, 2020, from https://historia.id/urban/articles/arsitek-kesultanan-banten-DBdGP.

Kampherbeek, E. (2015). *Jalan Raya Pos – de Grote Postweg.* Retrieved August 19, 2020, from http://erickampherbeek.nl/jalan-raya-pos.

Kereta Anak Bangsa (2016). Kisah Peninggalan Kereta Api Banten. Cigading-Anyer Kidul-Rangkasbitung-Labuan-Saketi-Bayah-Gunung Mandur. Bandung: Pusat Data, Informasi, dan Kepustakaan Kereta Anak Bangsa.

Kurniawan, A.B., Kurniawan, M., Oktavia, V., and Radius, D.B. (2017). *Diplomasi Pedas Lintas Benua.* Retrieved August 23, 2020, from https://jalurrempah.kompas.id/baca/2017/07/18/diplomasi-pedas-lintas-benua.

Lukman, A. (2019). *Southeast Asia is not Passive. It Never Was.* Retrieved August 25, 2020, from http://warwickaseanconference.com/southeast-asia-not-passive.

Marihandono, D. (2008) dalam Refleksi Keilmuan Prof. Dr. R.Z. Leirissa. *Mendekonstruksi Mitos Pembangunan Jalan Raya Cadas Pangeran 1808: Komparasi Sejarah dan Tradisi Lisan.* Depok: Universitas Indonesia.

Michrob, H., and Chudari, A.M. (1993). *Catatan Masa Lalu Banten 3rd Ed.* Serang: PT Saudara Serang.

Pamungkas, M.F. (2019). *Mega Proyek Sultan Banten.* Retrieved August 23, 2020, from https://historia.id/kuno/articles/mega-proyek-sultan-banten-DEe8Y.

Peraturan Daerah Provinsi Banten No 5. (2017). Perubahan atas Peraturan Daerah Provinsi Banten Nomor 2 Tahun 2011 tentang Rencana Tata Ruang Wilayah Provinsi Banten Tahun 2010-2030. Serang: Gubernur Provinsi Banten.

Rosyadi, I.N. (2019). *Waduh, Kawasan Banten Lama Belum Punya Status Cagar Budaya.* Retrieved October 21, 2020 from https://mediabanten.com/waduh-kawasan-banten-lama-belum-punya-status-cagar-budaya/.

Sekretariat Daerah Provinsi Banten (2018). *Kode dan Data Wilayah Administrasi Pemerintahan Provinsi Banten Tahun 2018.* Serang: Pemerintah Daerah Provinsi Banten.

Syuhada, M. (2018). *Peradaban 3 Zaman di Kota Serang yang Terancam Hilang.* Retrieved October 21, 2020 from https://bantentribun.id/peradaban-3-zaman-di-kota-serang-yang-terancam-hilang/.

The National Research Center of Archaeology (1998). *Archaeological Remains of Banten Lama.* Jakarta : Departemen Pendidikan dan Kebudayaan.

Thresnawaty, E. (2009) in Patanjala Journal Vol 1 No 2 page 175 – 187. *Lintasan Sejarah Pemerintahan Kabupaten Serang Abad XVI – XX.* Bandung: Balai Pelestarian Sejarah dan Nilai Tradisional Bandung.

Undang-Undang Republik Indonesia (2010). *Cagar Budaya.* Jakarta: Presiden Republik Indonesia.

Van Oers, R. (2010) in Managing Historic Cities page 7-16. *Managing Cities and the Historic Urban Landscape Initiative – An Introduction*. UNESCO World Heritage Centre.

Yakin, A.U. (2014) in Indo-Islamika Vol 4 No 1. *Kesultanan Banten: Amsterdam van Java yang Makmur Berkat Pertanian.* Belgium: Ghent University. Retrieved August 19, 2020, from www.researchgate.net/publication/284371848.

WHS. (2020). *Former Tentative Sites.* Retrieved September 9, 2020, from https://www.worldheritagesite.org/country/Indonesia.

2011. *Banten Lama.* Retrieved August 25, 2020, from https://www.iseas.edu.sg/centres/temasek-history-research-centre/archaeology-unit/project/banten-lama.

2018. *Kios-Kios di Banten Lama Mulai Dibongkar, Pedagang Ngeluh Belum Ada Relokasi.* Retrieved August 19, 2020, from https://faktabanten.co.id/blog/2018/07/03/kios-kios-di-banten-lama-mulai-dibongkar-pedagang-ngeluh-belum-ada-relokasi.

2019. *Pasar Karangantu Akan Dibongkar.* Retrieved August 24, 2020, from http://www.tangerangekspres.co.id/2019/05/15/pasar-karangantu-akan-dibongkar.

2019. *Wahidin: Penataan Banten Lama Selesai 2020.* Retrieved August 19, 2020, from https://rmco.id/baca-berita/government-action/5370/wahidin-penataan-banten-lama-selesai-2020.

2020. *Ketua DPRD Kota Serang Tolak Rencana Relokasi Pasar Karangantu.* Retrieved August 24, 2020, from https://setdprd.serangkota.go.id/detailpost/ketua-dprd-kota-serang-tolak-rencana-relokasi-pasar-karangantu.

2020. Rencana Pembangunan Jangka Menengah Nasional 2020-2024. Jakarta: Kementerian PPN/ Bappenas.

www.bantenprov.go.id accessed on August 19th, 2020

www.cagarbudaya.kemdikbud.go.id accessed on September 9th, 2020.

www.collectie.wereldculturen.nl accessed on August 19th, 2020

www.pembangunan.dpupr.org accessed on August 19th, 2020

About the Authors:

Rahmi Elsa Diana. Lecturer in Architecture Department, Universitas Multimedia Nusantara. Master in Landscape Design and currently, tutoring Ethnic Architecture.

International
Conference of
Innovation in Media
& Visual Design

Designing Social Campaign for The Usage of Travel Insurance

Yolanda Astarie Milenia Setiawan[a*], Darfi Rizkavirwan[b]

[a-b] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: yolanda.setiawan@student.umn.ac.id

Abstract: With the current growth of traveling in Indonesia, the needs of travel insurance are very important for every traveller since there are a lot of risks that could happen anytime while traveling. Unfortunately, the number of travel insurance usage in Indonesia is still very low. 52.2% respondents of the research never use travel insurance before. The proportion of travel insurance is only about less than 10% of total national's insurance premium. In this report, the author will design how to communicate the increasement for the usage of travel insurance for traveller through social campaign and to design the visual that show the bad possibilities that could happen without a travel insurance through social campaign. The author has collected data by doing interviews, questionnaire, and Focus Group Discussion. By designing this project, the author hopes that the literacy and penetration of the travel insurance will increase.

Keywords: usage, risks, traveling, traveller, travel insurance

1. Introduction

Travel insurance is a type of insurance that provides protection to someone during a trip from unexpected events. Travel insurance itself included in the business line of miscellaneous insurance. In 2018, the number of Indonesian tourisms increased to 303.4 million for domestic area and 9.75 million for international area. According to Arief Yahya, the ex-Minister of Tourism, the trend of travelling is slowly getting dominated by the millennials. With the current growth of Indonesian tourisms, the usage of travel insurance needs to be increased due to a lot of travel risks that could happen anytime. Those kind of risks during a trip could cause a big amount of either financial or time loss.

The importance of having a travel insurance is to make sure the travellers always feel safe, protected and secure their financial. Unfortunately, travel insurance has not been the main priority for Indonesian traveller as it is not a mandatory to have. According to

Dody A. S. Dalimunthe, the Executive Director of General Insurance Association of Indonesia (Asosiasi Asuransi Umum Indonesia), the proportion of miscellaneous insurance is only about 10% of the total of national insurance premium. Based on the survey result to 201 respondents of travellers, the result shows that 52.2% of the respondents never use a travel insurance before. In fact, while travelling someone could face a lot of risk possibilities such as death, medical emergency, personal accident, baggage loss, flight delay, house fire and theft.

According to Stasher, Soekarno-Hatta International Airport ranked the last place out of 106 world's airports as the most delayed airport in the world. According to Dody Dalimunthe, there are travellers that could pay for the unexpected financial loss from travel risks, but there are also some travellers with a financial condition that cannot pay for big amount of loss from travel risks. Most of the respondents of the questionnaire stated that they already knew about travel insurance, knew some of its benefits, felt that travel insurance is something important to have, and ever got offered to use travel insurance, but at the end most of them still decided not to use it. It shows that most of Indonesian travellers don't yet have the awareness to prioritize and spend their money on travel insurance.

Therefore, the authors decided to design a social campaign as an awareness for the usage of travel insurance in a persuasive way for Indonesian traveller. The benefit from this research for target audiences is to prevent unexpected huge financial loss due to travel risks and to have more sense of security while traveling by using travel insurance. According to Roger and Storey, the main objective from a campaign are changes in behaviour and mindset of the audiences. By doing this project, the authors hope that Indonesian travellers will always use travel insurance as one form of protection during the trip both in domestic and international area.

2. Literature Reviews

2.1 Campaign
According to Roger and Storey, campaign is a group of structured communication process with some specific goals for large targeted audiences in a certain ongoing period of time. The main objectives mostly are changes in behaviour and mindset of the targeted audiences. There are three types of campaign, Product-Oriented Campaign, Candidate-Oriented Campaign, and Ideologically or Cause-Oriented Campaign. Product-Oriented Campaign is a commercial type campaign and aims to gain financial benefit. Candidate-Oriented Campaign or political campaign is a campaign that focused on candidates for political campaign matters. The third type is Ideologically or Cause-Oriented Campaign, a campaign that oriented to a specific goal and aims to achieve a social change in public.

2.2 Ostergaard's Campaign Model

Ostergaard's Campaign model is considered as a campaign model that has the most scientific side in it. According to Leon Ostergaard, a campaign needs to begin with a clear identification of problems and scientifically supported in order to have an effect to solve the social problems they face. The Ostergaard's Campaign Model is described as the following picture below:
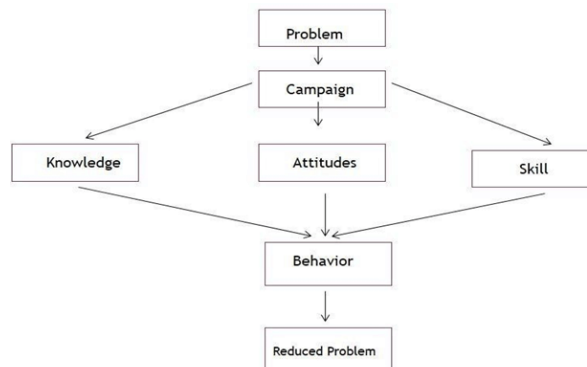

Figure 1 Ostergaard's Campaign Model

2.3 AISAS

AISAS is a consumption behaviour model that became a base of a lot of campaigns. The process of AISAS does not always move through each of the five stages, a step may be skipped or repeated. According to Sugiyama & Andree, AISAS described as five processes, Attention, Interest, Search, Action, and Share.

2.4 Media

According to Tymorek, professionals of social campaign considered campaign media into three categories by the interaction between audiences and campaign organizer, those are Above the Line (ATL), Below the Line (BTL), dan Through the Line (TTL).

Above the Line (ATL) use conventional media such as television, printed media, radio, and internet banner. ATL media is targeted to very large and diverse audiences. ATL requires some cost to place the medias by agency or media. Below the Line (BTL) uses a direct approach to audiences. This method includes letter, e-mail, public relations, or sales promotions to distribute sticker, pamphlet, poster, brochure, banner, demo, sample, and more. BTL does not always requires some cost to place its media. Through the Line (TTL) is a combination of ATL and BTL. One of the examples is an advertisement using ATL method which invites the audiences to visit a shopping centre to get a special promotion. Upon their arrival at the shopping centre, the audiences will find BTL strategy there, such as brochure or sample as one form of the promotion.

According to Landa, ambient media is a type of media which utilize the existing structure in public spaces, such as bus shelters, fire hydrant, buildings, and parking lot to surprise the audiences. Ambient media can appear as various forms. An effective non-

conventional solution shows that it can promotes brand or group with a new break-through ways that beyond the existing media spaces.

3. Design Method

Campaign designing process begins with data-gathering process by doing the mixed research with involves qualitative and quantitative research. According to Visocky O'Grady, qualitative research measures subjective data such as images and words, meanwhile quantitative research measures various objective data such as numbers and logic. The authors use qualitative approach by doing references observation, interviews and Focus Group Discussion (FGD), also the quantitative approach by distributing online questionnaire.

The design methodology employed by the authors is the Ostergaard's campaign model. According to Venus, this campaign model is very close with the scientific side. Therefore, this campaign designing process must begin with a clear and factual identification of problems. After identifying the problems, the next thing is to search the cause and effect relationship from the existing facts.

The second step is the campaign management which begins with designing, execution, and evaluation. The last step of this campaign model is the post-campaign evaluation of the reduced problem to evaluate the campaign effectiveness to reduce or eliminate the identified problems from the first step.

4. Design Process

4.1 Design Strategy

After doing the analysis process, references observation, and data-gathering, the authors continue to the designing process.

1. Planning the Messages

While planning for the messages, the authors did a mind mapping and brainstorming processes. The results of the mind mapping are some keywords which simplify the data and theories throughout the campaign designing process. The main keywords used in this process are worry-free, preventing, and mindful. Based on the mind mapping result above, the big idea of this campaign is "Experience your worry-free exploration".

The idea of this campaign designing process is to make a visual design which understands the worries of every travellers during a trip. The concept of this campaign is a social campaign which shows the impact of the bad risks that could happen without having a travel insurance.

Based on the creative brief, consideration toward the target audiences, campaign message, keywords, and more, the authors decided to use "Proteksi Eksplorasi Tujuan Anda (PETA)" as the campaign name, which means "Protect Your Destination's

Exploration". The acronym itself, PETA, means "Maps" in Indonesian, which have a strong correlation to traveling.

2.   Communication Strategy

To delivering the messages to the audiences, the authors used some strategies and brainstorming results which developed to the corresponding copywriting with the campaign objective.

• Campaign Technique

The used campaign technique in this campaign is the pay-off technique. This technique is used to create fear or worries if the audiences do not follow the advices from the campaign or showing on the campaign visual that the bad risks could happen anytime.

• AISAS

The five process of AISAS in this campaign are described as the following picture below:

	ATTENTION	INTEREST	SEARCH	ACTION	SHARE
MESSAGE	Showing common or popular tourist activities	Showing losses as the impact of common travel risks	Further information about features, benefit, price, and travel insurance brands, claim procedure	Information about how to buy travel insurance as travel protection	Sharing information or review about travel insurance to public by social media

MEDIA	1. Banner
	   Application banner
	   Web banner
	2. Poster
	   Billboard
	   Airlines Magazine
	   Digital signage
	3. Ambient media
	   Escalator
	   Airport Trolley
	   In-flight entertainment ads
	   Ceiling panel in public transportation
	4. Instagram story ads
		1. Banner
		   Application banner
		   Web banner
		2. Poster
		   Billboard
		   Airlines Magazine
		   Digital signage
		3. Ambient media
		   Escalator
		   Airport Trolley
		   In-flight entertainment ads
		   Ceiling panel in public transportation
		4. Instagram story ads
			1. Website
			2. Instagram post
				1. Website
				2. Application banner
				3. Online Booking Site
					1. Merchandise
					   Luggage tag
					   Travel journal
					   Passport cover
					2. Instagram Stories Bingo

Figure 2 AISAS

The AISAS model begins with Attention to attract some attention from the audiences to show some bad possibilities that could happen when someone is traveling. The Interest phase also visualized by the common or popular tourist activities to make audiences feel relatable. Attention phase communicated by the illustration visual placed on application & web banner, billboard, airlines magazine, ambient media in various location, and Instagram story ads.

The next phase is when audiences started to Search on some platform, such as search engine and Instagram. The objective of those platform is to make audiences find information and further things regarding the campaign. Next, the audiences can move to the Action phase by participating in this campaign by planning to use travel insurance for the next trip. The Action phase is placed on website which could show the distribution channels to buy travel insurance or by clicking the application and web banner on the online booking site as one part of the distribution channels.

On the last phase, Share, the audiences can share information regarding the campaign by filling the Travel bingo template and upload it to their Instagram story and also use the campaign merchandise to public places.

• Copywriting

The tagline of this campaign is #KelilingBebasKhawatir (#WorryFreeTravel) based on the word "Keliling" which often used by Indonesian traveller describing their travel dream or experiences such as "Keliling Dunia" (Travel Around the World) and "Keliling Indonesia" (Travel Around Indonesia). The overlines of this campaign is "Saatnya proteksi biar no worry" (Time for protection to have no worry).

The headlines and overlines are based on the applied persuasion theory for designing message, the EPPM (Extended Parallel Process Model) which adjusted with the idea of visual design that shows every traveller's worries and the concept to show the impact of bad risks, which leaning more toward the fearful interpretation. This positive copywriting is expected to balance those idea and concept and also give solutions for the audiences so that they could receive the message well.

3.   Visual Strategy

After planning the message and communication strategy, the authors continue to design the campaign visual.

• Logo Design

As the identity of this campaign, the authors the logo based on the reference observation and brainstorming. Based on the campaign name, the logo is designed based on the keywords safe, travel, and friendly. The picture mark of this logo is the combination of pinpoint form, which is shown a lot on maps, and the lifebuoy ring. The lifebuoy ring is the analogy of the travel insurance as a 'rescuer' of the traveller from various travel risks and danger.

Figure 3 Campaign Logo

• Illustration Style

According to Male, the stylized realism style is good for young target audiences such as for this campaign. This style is expected to easy to understand in a short span of time from the familiarity of its realistic adaptation, yet also still have the energetic and flexible character for the young audiences. The mood board is shown as the following picture below:

Figure 4 Mood board

4.2 Design Results

In this process, the authors designed the visuals based on the previous analysis results and various design strategies so that the message could be communicated well by visual.

1. Application Banner Design

The main media of this campaign are application and web banners. There are three alternatives of the visual concept for application and web banners. Those are about luggage damage, baggage loss in airport, and flight cancellation. These three are the common bad experiences that often happened to travellers.

The concept for the application banner is to show the fear or worries inside every traveller's head prior having a trip. The visual is also supported by copywriting that calm audiences down at the same time, so that they no longer have to worry about travel risks if they starting to use travel insurance.
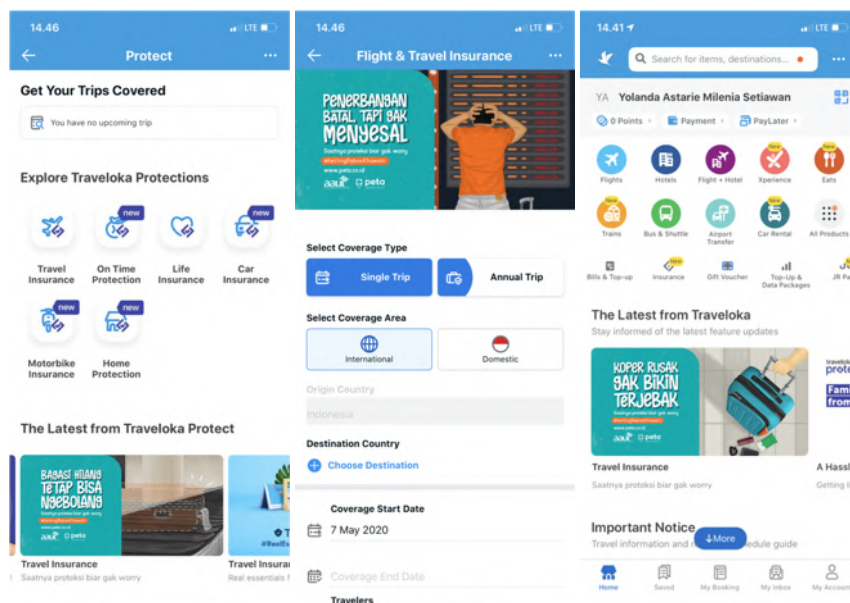
Figure 5 Application Banner

The fourth visual of the application banner is a pop-up application banner which will show up when the application user just log into the online booking application via smartphone, so this kind of media can draw more attention from the users. The visual in this pop-up ad is the flight cancellation design since most of the users open the application to look for flight information instead of the other information.

Figure 6 Pop-up Application Banner

2. Web Banner Design

The second media is web banner. This web banner will be implemented on online booking website and online travel news site such as Detik Travel. This kind of media is expected to share the message for more specific target audiences, which is traveller.
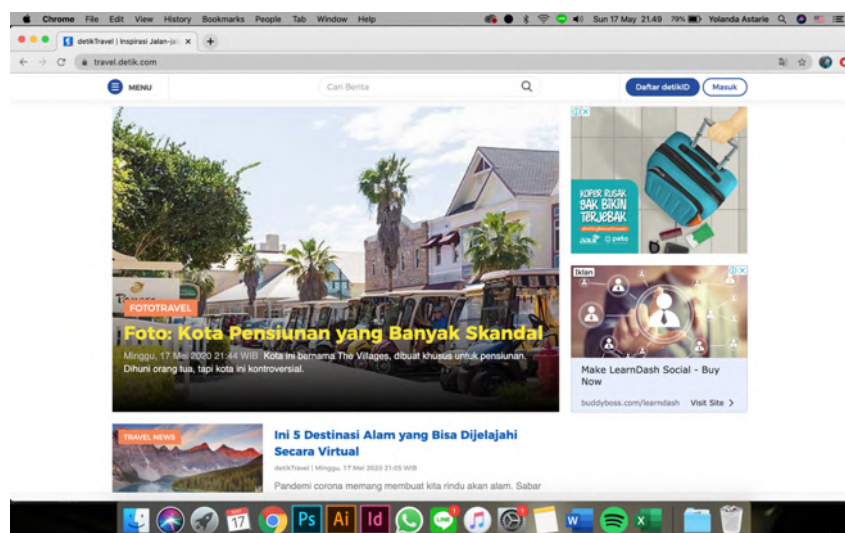
Figure 7 Web Banner

3.   Billboard Design

The third media is a billboard that will be placed at the highway toward the Soekarno-Hatta International Airport or Jl. Tol Sedyatmo Km.31. The billboard is expected to draw attention from a large audience who drive past this billboard to airport. Therefore, the visual for this media is about the flight cancellation to adjust with the media's audiences.

Figure 8 Billboard Design

4.   Airlines Magazine Design

Airlines magazine is chosen to communicate the travel protection message to the reader of the magazines that tend to travel more by airplane. The magazines for this media are Colours by Garuda Indonesia, Linkers by Citilink, and Travel360 by AirAsia Indonesia.

Figure 9 Airlines Magazine Design

5.   Digital Signage Design

Digital signage is a media to be place in airport and station area where a lot of people come and go to some destination. The message from this media is specified to the luggage loss design.

Figure 10 Digital Signage Design

6.   Ambient Media Design

• Escalator Design

The first ambient media will visualize the moment when some travellers missed their connecting flight due to the delay from their previous flight so that they can't board to the connecting flight. The concept of this ambient media is visualizing the travellers who are trying to catch the airplane which just took off some moment ago. For implementing this concept, the authors chose the glass on the escalator in airport and airport train station.

Figure 11 Escalator Design

• Airport Trolley

This ambient media wants to visualize about luggage loss in airport, the overall concept is similar to the previous application and web banner. Meanwhile, the visual will be implemented on airport trolley which used for carrying traveller's luggage, mostly suitcases. The visual placed behind the trolley so that it can be seen properly and clearly by the other airport visitors.

Figure 12 Airport Trolley Design

• In-flight Entertainment Ads

The third ambient media is the in-flight entertainment ads. The whole passengers of an airplane which has an in-flight entertainment in LCD TV can see the clip of this campaign visual in it. This media is focused on domestic flight to reach more domestic audiences.

Figure 13 In-flight Entertainment Ads Design

• Ceiling Panel

The last ambient media is the ceiling panel ads on the top part of apron bus passenger seats, MRT, and airport train. This media could be seen easily by passengers inside those public transportation.

Figure 14 Ceiling Panel Ads Design

7.   Website Design

Moving on to the Search phase, a website is designed as the source of the campaign information. The audiences will get the website URL from the media of the previous Attention and Interest phase and then could start looking for further information regarding this campaign on the website. In this website, there are information such as what is a travel insurance, what is PETA, travel risks possibilities, travel insurance benefits, cost of insurance premium, where to buy the travel insurance, where to buy the merchandise of the campaign, and also the contact of the campaign organizer.
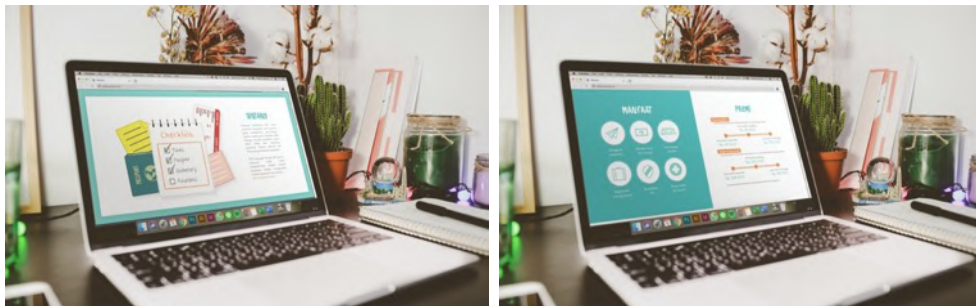

Figure 15 Website Design

8.   Instagram Post Design

Aside from website, the Search phase also implemented on Instagram post, this media is considered by the high usage of Instagram by the audiences of this campaign. The visual designs of the Instagram post are quite similar with the previous website contents.
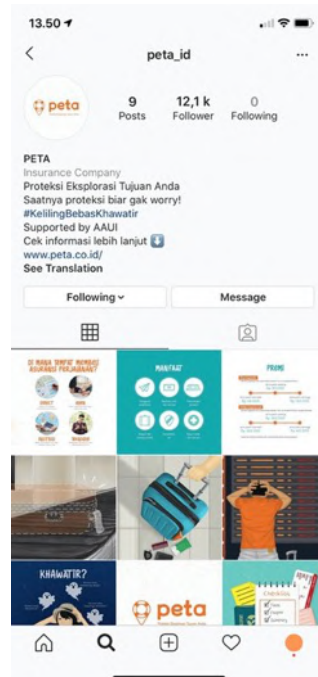
Figure 16 Instagram Post Design

9.   Merchandise Design

• Luggage Tag

Travellers use luggage tag on their bag, suitcases, and other belongings. Luggage tag functions as identification of one's luggage. By placing the campaign message on luggage tag could help spreading the message to anyone who see the luggage tag everywhere.

Figure 17 Luggage Tag Design

• Travel Journal

Traveller's experiences can be written on a travel journal as one way to capture the memories. Moreover, the travel journal also could be used for writing down daily needs. Placing the campaign message on the journal design is also one way to share the message to public.
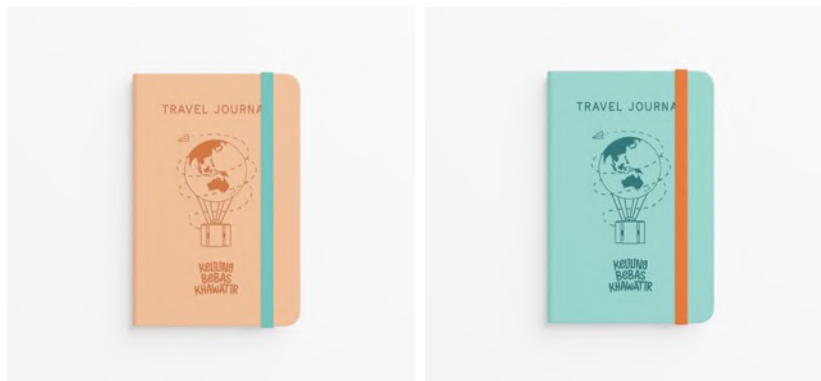
Figure 18 Travel Journal Design

• Passport Cover

Passport is one of the essential needs of anyone who is traveling abroad. A passport cover is very useful to cover the passport from any damage or dirt since it need to be taken care very well. Just like the other merchandise, passport cover is also designed with campaign message on it to be shared on public places. The text on passport cover will be printed with deboss technique on synthetic leather.

Figure 19 Passport Cover Design

10.   Instagram Story Design

The Instagram story ads is the media for Attention and Interest phase, meanwhile Instagram story bingo template is the media for Share phase. The design content and message of Instagram story is similar with the previous main media.
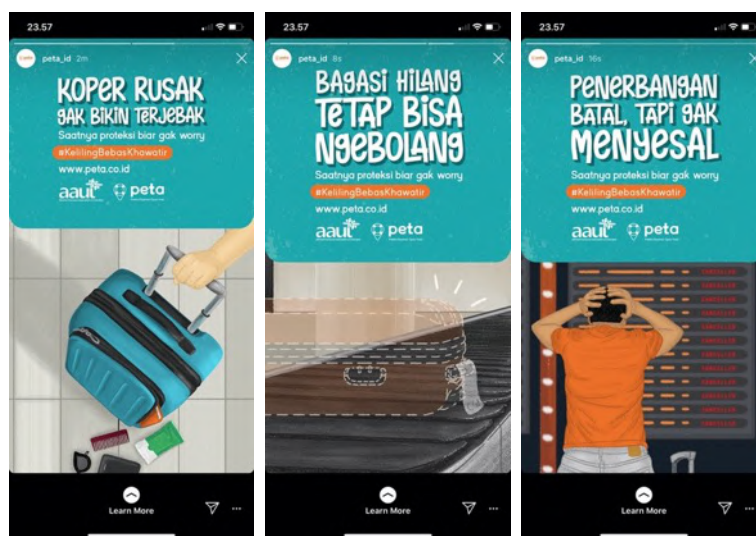
Figure 20 Instagram Stories Design

The next Instagram story design is the bingo template that can be filled by Instagram users and shared on Instagram story. The contents of this bingo template are bad experiences that ever happened to travellers on their previous trips. By filling and remembering those bad experiences, the authors hope that the audiences could learn from the past and started to protect their future trips. This Instagram template also made as an entertainment for the users.
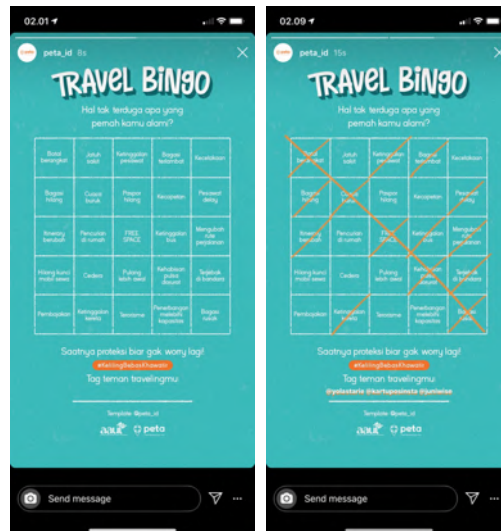
Figure 21 Instagram Stories Bingo Template Design

5. Conclusion

The authors designed this social campaign to change the mindset and behaviour of the audiences to start make a move and aware of the importance of protection. One of the difficulties during this research is deciding the best way to persuade travellers on using travel insurance since based on the questionnaire most respondents don't have the right mindset yet. Therefore, the authors found the solution by studying from literature and carefully learning from audience's behaviors. The implementation of visual which shows travel risks possibilities is expected to build public awareness to always use travel insurance. This protection is not just beneficial for one's self but can also be beneficial for those around them who are affected by the travel risks, such as financial loss or other threats. The application and web banner as the main media are expected to be the main reminder for audiences to always prioritize and use travel insurance while checking on those media while planning for future trip.

5. References

Anisa, D. F. (2018, November 03). *Menpar: Wisatawan Milenial Menjadi Target Baru untuk Indonesia*. Berita Satu. https://www.beritasatu.com/gaya-hidup/520261-menpar-wisatawan-milenial-menjadi-target-baru-untuk-indonesia

Landa, R. (2011). *Graphic design solutions* (Ed. 4). Boston, MA: Clark Baxter.

Male, A. (2017*). Illustration: A theoretical and contextual perspective* (Ed. 2). New York, NY: Bloomsbury Visual Arts

Ruslan, R. (2013). *Kiat dan strategi kampanye public relations* (Ed. 7). Jakarta: PT Raja Grafindo Persada.

Setiawan, S. R. D. (2019, August 03). *Riset: Bandara Soekarno-Hatta catat delay tertinggi di dunia*. Kompas.com. https://money.kompas.com/read/2019/08/03/120000626/riset--bandara-soekarno-hatta-catat-delay-tertinggi-di-dunia

Sugiyama, K. & Andree, T. (2010). *The dentsu way: Secrets of cross switch marketing from the world's most innovative advertising agency*. New York, NY: McGraw-Hill Education.

Tymorek, S. (2010). *Advertising and public relations*. New York, NY: Ferguson Publishing Company.

Venus, A. (2018). *Manajemen kampanye: Panduan teoretis dan praktis dalam mengefektifkan kampanye komunikasi publik*. Bandung: Simbiosa Rekatama Media.

Visocky O'Grady, J. & Visocky O'Grady K. (2017). *A designer's research manual* (Ed. 2). Beverly, MA: Rockport Publishers.

About the Authors:

Yolanda Astarie Milenia Setiawan is a final year undergraduate student of Visual Brand Design in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

Darfi Rizkavirwan, S.Sn., M.Ds. is a lecturer in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

International
Conference of
Innovation in Media
& Visual Design

Prevention and counter measure of iron deficiency anemia social campaign design for teen girls

Margareth Irma[a*], Nadia Mahatmi[b]

[a-b] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: margareth@student.umn.ac.id; nadia.mahatmi@umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1122

Abstract: Anemia is a condition in which the body lacks red blood cells. This condition can affect anyone, however women are more vulnerable to experience it. The period of growth requires an adequate intake of iron for physical development, especially when experiencing puberty teenage girls experience menarche which increases the body's intake of iron. One in three young women in Indonesia is prone to anemia. Unfortunately, although the results of the questionnaire stated that many people already knew the term, there were still many young women who only knew the symptoms. Therefore, young women who do not know the dangers and effects of anemia consider it trivial and do not prevent anemia. This can be ascertained through the program that has been held by the government. The results of the program stated that only 2% of young women who received blood tablets consume them. "Sekar" is a social campaign focused on the prevention of anemia. It is designed to communicate in a way that resonates with the needs and interest of teen girls. To do so, the campaign talks about achievement and the future. Visually, the campaign shows the potential of teen girls as a seed that will bloom, where anemia is a limit to productivity in achieving a bright future.

Keywords: campaign; anemia; teen girls; potential; future

1. Introduction

Anemia is a condition in which the number of red blood cells is lower than normal. The most common type of anemia is caused by iron deficiency. One in three teen girls in Indonesia suffers from anemia, this is due to rapid growth at puberty and menstruation. Unhealthy eating habits also contribute to anemia (Dinkes Tangerang Selatan, 2020; Suryani, 2015).

Most people consider anemia as a trivial matter. This is due to the lack of information and education on symptoms, effects, and treatment of anemia. Anemia has the potential to obstruct daily activities of adolescents, especially those who attend school. The symptoms can reduce concentration, lack of productivity, and decreased immunity which makes them more susceptible to infection (Widiaputri, 2018; Cindy, 2020; Wibawa, 2019).

According to a survey conducted by Nutrition International, 68% of young women are aware of anemia but with a lack of knowledge of the causes and implications they tend to ignore it. The government distributes blood-supplement tablets, however the success of the program is measured by the percentage of recipients which does not ensure its consumption. Thus, the program has not been effective in preventing or overcoming anemia (Nurgroho, 2017).

Teen girls should know how to overcome anemia by having balanced meals that consists of foods rich in iron. However, teens have yet to consume foods that are nutritionally balanced, so 63% ends up with iron deficiency anemia. The government's effort to reduce the risk of anemia has not been successful due to the lack of information delivered and ineffective persuasion. Therefore, a social campaign for anemia prevention and countermeasure will be carried out so that teen girls will have enough knowledge and desire to overcome anemia (Sartika, 2019; Nurgroho, 2017).

2. Review of literature

2.1 Anemia
Anemia is a condition when the number of red blood cells in the body is lower than normal. Hemoglobin is a component in red blood cells that binds oxygen to deliver it throughout the body. If someone suffers from anemia, there can be a lack of oxygen in the tissues of the brain and body (Ministry of Health of the Republic of Indonesia, 2016). Biologically, women are more prone to suffer from anemia because they have lower hemoglobin levels than men. Women also need more iron intake because of menstruation and the possibility of blood loss during childbirth.

2.2 Campaign
A campaign is a series of planned communications to achieve specific results in a limited period of time. A campaign is carried out to change or strengthen a value. The campaign combines stories, structures and sequences designed to achieve maximum impact. The campaign always has a clear source, and the nature of its idea is open as a space for dialogue (Venus, 2019).

2.2 Campaign Strategy

Dentsu developed a new target model of consumption behaviour called AISAS. AISAS is not required to follow a linear path, so some steps can be skipped or repeated. The following are components of AISAS;

- Attention, consumers see or become aware of a product / service / advertisement.
- Interest, consumers are interested in products / services / advertisements.
- Search, consumers find more information about products / services / advertisements through websites, social media or by directly asking questions and then make an assessment of the information that has been obtained.
- Action, consumers buy or interact with products / services.
- Share, consumers talk about products / services either directly or through various platforms.

3. Design method

Previous studies in making design intervention and campaign used Human-Centered Design (Selamet, 2020), design thinking and more. For this project, Landa's design method was used. There are several stages in designing a campaign namely: overview, strategy, ideas, design, production, and implementation. Based on these stages, the author designed the campaign design process as follows (Landa, 2010):

1. Overview

The first stage involves data collection and conducting research. At this stage, the topic, actual condition, and problems are known. Interviews with a general practitioner and graphic designer is conducted, a questionnaire is distributed to middle and high school students, and existing campaigns on anemia that have been held previously are studied.

The interview with the general practitioner is held to ensure the writer's understanding of anemia and to find out more about its current condition. From the interview it is known that adolescent girls are more prone to anemia. This is due to their eating habits which do not contain iron rich nutrients and their frequent choice to consume drinks that contains tannin which inhibits the production of red blood cells. During puberty they also undergo menstruation which is a factor that affects anemia.

A survey was conducted for women in the age of 10-23 to find out the standard of knowledge they have about anemia. The age range starts from adolescent girls who have reach the age of puberty up to those who are in university. The purpose is to know the current understanding of anemia in girls who have just begun puberty and are still in middle school and high school, and to know what was learnt and experienced by those who have finished their studies. Results of the survey stated that most of the respondents know the symptoms of anemia but do not understand its prevention and treatment, so the action taken is not enough to avoid it. Currently

there is not enough information about anemia provided in medias used by adolescent girls. 79.2% of the respondents have heard of anemia however there is only a small percentage of those who know its prevention (29.2%), cure (24.5%), and side effects (17.9%) which causes a lack of urgency in preventing anemia. 68.4% of respondents mistook the symptoms and side effects of anemia. In the survey respondents are asked whether they are anemic. Most of the respondents who answered that they were not anemic stated that they do not experience the symptoms of anemia, however the symptoms they are aware of are only a few. They also can not confirm that they are not anemic because they did not undergo any medical checkups. Most of the respondents who were not anemic also stated that they have not seen information about anemia both on social media or school and several other media.

A book titled 'Buku pedoman pencegahan dan penanggulangan anemia pada remaja putri dan wanita usia subur (WUS)' that was published by the Ministry of Health Indonesia is also used as a reference in deciding the target audience of the campaign. From the results of the research and data the audience of the campaign is determined to be women in the age of 10 to 24. The age of 10 to 18 being the primary target as girls who enter puberty will experience rapid growth which requires more nutritional intake. Apart from that, they often aim to lose weight and experience menstruation which doubles their required iron intake. The age of 19 to 24 as the secondary target as belong to the age group whose health condition and nutrition is a concern.

Existing studies are conducted as reference and to compare the design and flow of previous campaigns. One of the campaigns is 'Indonesia Bebas Anemia' which is a campaign for women in the age range of 21-35 years. The campaign used a variety of media to reach its target audience and the delivery of the message is relevant to the activities of the intended audience. The campaign provides several events according to the target's needs. The location is also easy for the target reach, thus the campaign is easily accessed. However, the campaign depends on its sponsor thus it is more focused on introducing products and sales so the audience may forget about the main message which is preventing anemia because they are more focused on the product.

The second existing study is a campaign called 'Sehat berprestasi tanpa anemia' which is targeted towards adolescent girls who are in school. The campaign requires the help of others that are around the targeted audience which includes teachers and health workers thus the audience will have a higher chance of following through the campaign because of continuous support. The visuals used are not consistent, so there is no unity and it is not very suitable for the audience. There is also no media used as a reminder for the audience.

To create a suitable design, an interview with a graphic designer who is focused on campaign design is conducted. The campaign should focus on its engagement with

the audience thus communication is a key factor. The main message must consist of one single message to avoid any double meanings, it is very important to have a continuous message that keeps reenforcing the knowledge towards the audience;

2. Strategy

This stage is used to examine, assess, find, and plan the big idea of the campaign. The data that has been obtained from the overview is analysed so that it can be visualized and applied to the campaign media.

From the results of the overview, it is determined that the campaign will focus on its engagement with its audience. The campaign will follow AISAS which will create stages and connect each part of the campaign. Considering the segmentation of the audience, a mix of online and offline media will be used. The online media will begin the campaign and collate the offline media, while the offline media will be placed in locations frequently visited by the audience such as schools. The media will be designed to capture the interest of the audience so it will keep them active and engaged through out the campaign;

3. Ideas

The big idea is formulated using the results of research, analysis, interpretation, inference, and reflective, and creative thinking that has been processed in previous stages

The brainstorming process of creating a big idea includes creating mind maps. Three mind maps are made with 'anemia', 'campaign', and 'adolescent girls' as the centre. Common words and ideas are listed and compiled before selecting words that would represent the campaign. From there further exploration is done to find definitions and words that are related and associated to the keywords that would create the big idea, concept, tone of voice, and mood board;

4. Design

The concept is designed through three stages of visual processes, namely thumbnail sketches, roughs, and, comprehensives. Concepts are designed in the form of manual or digital sketches. The campaign design will be divided into several stages, namely determining strategy, copywriting, and design;

5. Production

Implementing design solutions in various forms depending on the type of application and whether the media is printed, screen-based, or environmental. At this stage a design with a variety of media will be produced according to the needs;

6. Implementation

At the last stage the design that has been visualized and applied to the media is used to hold a campaign. This stage involves the of the campaign to determine its effectiveness.

4. Design process

4.1 Overview

This stage consists of data collection and research on anemia and its condition among teen girls. The project objectives are determined as designing a social campaign to prevent and manage iron deficiency anemia for teen girls so that they can broaden their horizons about the effects and dangers of anemia. The aim is to move young women to be more active in preventing anemia. The results of the research can be translated into social backgrounds containing social conditions, target behaviors, new behaviors, and new trends:

• Social background
One in three young women is prone to anemia and 23% are anemic. Snacks available in school environments do not contain enough nutrition for body development and blood loss during menstruation. This is one of the factors that makes teen girls more vulnerable to anemia. The government provides blood-supplement tablets in schools and health centers to prevent anemia, but the number who consume them is only 2%.
• Target behaviour
Teen girls are not aware of their nutrition intake in the school environment. Coffee or tea is the prefered beverage, however it can act as an obstruction to creating red blood cells because it contains caffeine and tannins. Teen girls consider anemia trivial because they feel healthy and safe from diseases. Many do not take blood-supplement tablets because they do not know how to overcome the side effects.
• New behaviour
Teenagers tend to gather in malls or cafes with friends. The existence of a health-based application makes it easy for everyone to communicate directly with doctors. Globalization promotes trends from abroad including habits such as fashion and diets that affects nutritional intake. Information about anemia can be searched easily on the internet. The government runs a blood-supplementing tablet program.
• New trend
Information can easily be distributed but it can be a hoax. Ordering food and the many promotions become a major factor in food consumption among adolescents. Teenagers can show off activities through social media with photos or text.

4.2 Strategy

This phase is used to formulate the big idea by using the results that have been analysed from the previous stage. The main message of the campaign is so teen girls would consider preventing anemia as the first step to achieving their desired future. The results will be used to determine the competitive frame, communication objectives, social products, and promises / social benefits.

• Competitive frame

New communication where the message is conveyed as a figure that has the same position as teen girls. New preposition which invites students to interact with each other as an action to prevent anemia.

• Communication objective

Reminds the dangers that can be caused by anemia (reminding). Introduces iron supplements in detail to persuade its consumption (stimulate trial). Creates a habit to consume iron supplements and choose food and beverage with better nutritional values (promote new habit).

• Communication technique

Prompting audience to have direct participation in campaign activities (participation). Communicating as someone in the same position so that the urgency of the campaign is conveyed (integrative). Using messages that is relatable to daily life and the future in order to have an emotional appeal (icing technique).

• Social product

Creating a new ideas and insight about anemia which is actually a condition that may turn into significant consequence such as diseases / infection and decreased productivity (social idea). Teen girls are accustomed to consume iron supplements and become more active in preventing anemia (social practice). Merchandise are distributed so that there is always a constant reminder of the campaign message (tangible product).

• Psychological response

Understand, evaluate, plan, choose, and think about their daily activities without forgetting the factors that can contribute to anemia (cognition). Triggers the feelings of the target by using the campaign message (affection).

To prepare the objective of the message, the facet model of effects is used. The following is a diagram of the facet model of effects of this campaign.
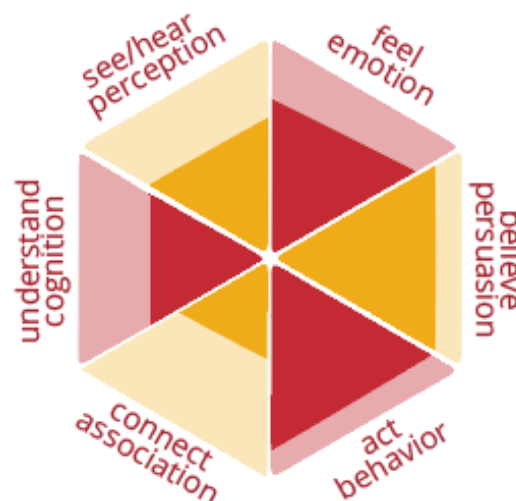

Figure 1 The facet model of effects. The following shows each of the aspect from six categories of target behaviour towards the campaign.

The following table displays the purpose and message of each step of the campaign:

Table 1 AISAS Purpose, Message and Media.

phase	purpose	message	media
Attention	Drawing the attention of teenage girls towards the campaign with a message that is associated with daily life.	Reintroducing anemia teen girls by making a connection between anemia and their potential.	Wall sticker, social media (Instagram post and story)
Interest	Piquing the interest of teenage girls to find out more about anemia.	Conveying the dangers and side effects of anemia. Giving an introduction about the prevention and control of anemia.	Poster, merchandise (pin, t-shirt), social media (Instagram post and story)
Search	Inviting teen girls to discover more information regarding anemia. Deliver content and important points of anemia.	Giving out information regarding the main purpose and message of the campaign. Provide complete information about anemia.	Website, social media (Instagram post)
Action	Creating a habit of consuming iron supplements and consuming iron rich foods.	How to prevent anemia and how to incorporate those ways in daily life.	Monitor card, interactive media, merchandise (pouch, post it, pen, tote bag), social media (Instagram post)
Share	Invites teen girls to share their experiences in following campaign activities.	Continuation for preventing anemia after the campaign is over.	Social media (Instagram filter, post and gif)

4.3. Ideas

In designing a social campaign, the results of the overview are then processed into three mind maps namely anemia, teen girls, and campaign design. The purpose of making a mind map is to broaden insight and to determine the keywords that will be used to develop a big idea, concept, tone of voice, and mood board.

Based on the mind map that has been made, two keywords are determined which are achievement and future. These words were chosen because they are words that are often heard and resonates with teen girls who are still in school. In this context, anemia is seen as a limit to productivity in achieving a bright future. The keywords are then combined to create a big idea which is small steps towards triumph. The purpose of the big idea is to convey encouragement to teen girls so they will act to achieve their goals. It depicts preventing anemia as a step towards a better future free of limitations.

To support the big idea, a few common words are taken from the previous mind map being; empowerment, support, and growth which represents the future potential of teen girls. An

analogy is made to symbolise potential that will bloom in the future. Flowers will be analogous to potential, where the seeds will be the starting point. As of now, seeds represents the potential of teen girls. In taking care of the seed they will create habits so that they will be able to become flowers in the future. Therefore, the concept of the campaign is visualising the prevention of anemia by viewing potential as flowers. Whereas the tone of voice of the campaign is fun and spirited.

4.3. Design

To create a consistent design, the following guidelines are used in the campaign:

- Color

Following the tone of voice, the red color is chosen from its connotations which include passion, energy, enthusiasm, and excitement and the yellow color which has a vibrant and fun impression. A lighter tint of red is used to give a softer and more feminine impression to match the target of teen girls.

Figure 2   Color pallete.

- Font

The visual design uses sans serif font to give a casual image to reduce the serious impression of the topic. Watermelon font is used for the headline because it represents the tone of voice with its bold and rounded details, textured stroke, and its irregular placement of the alphabet.

Figure 3   Watermelon font.

- Copywriting

To create copywriting that supports both the purpose and concept of the campaign, the vocabulary chosen should communicate the intention of the campaign but also use words

that are related to flowers. "Tanam kebiasaan, tumbuh keberhasilan" is the tagline of the campaign, in English it means creating habits leading to success. To incorporate the concept, words such as "tanam" and "tumbuh" is used as it is associated with flowers. The hashtag of the campaign "#ambisibebaslimitasi" means that there will be no more limit to their ambition. "Ambisi" symbolizes the potential teen girls can achieve in the future, and anemia is represented by "limitasi".

• Visual assets

To illustrate potential, four flowers are chosen as a visual asset according to their meaning.

Figure 4   Flower visual asset. The chosen flowers are sunflower, hibiscus, tulip, orchid with the meaning strength and intellegence, glory, prosperity and enthusiasm respectively.

Following the strategy to communicate as an equal, illustration of characters that represent teen girls are made. Indonesia has a population with a wide variety of race, ethnicity and religion. Therefore, characters will be visualised by four of the most commonly found race. However, there will not be four specific characters, rather having characteristics of the four races as a guide.

Figure 5   Teen girls illustration. Teen girls will be illustrated in their uniforms as media will mostly be used for students in school.

• Visual identity

Sekar means "flower" however it is also an abbreviation of "semangat kalahkan anemia remaja" which means the spirit to overcome anemia in teens. The red circle at the center of the logogram stands for the scientific symbol of hemoglobin. The five

petals surrounding the center are five symptoms of anemia called 5L; lemah, lesu, letih, lelah and lalai.

Figure 6   Campaign logo consisting of logogram and logotype.

The following are the media used in each stage of the campaign:

• Attention

In the early stages of the campaign a wall sticker will be pasted onto school walls to get the attention of the students in the campaign. This is done using illustrations of teen girls with copywriting in the form of a question. The QR code on the stickers is expected to direct students to the Instagram stories that illustrate the seeds (potential) which will develop without of anemia. Students who open the Instagram story will find more about the campaign through its posts.

The design for the wall stickers is intended to attract attention in schools towards the online media. Other than that, this sticker is also one of the initial media that gives exposure to the campaign directly to the target. The purpose of the question is to direct the students to the call to action where they find out the answer by scanning the QR code which will lead them to the Instagram story. The purpose of having the Instagram stories is to explain the meaning of the illustrations on the wall stickers. The story tells students that in themselves there is potential that cannot be seen. This is visualized by having seeds behind the objects that the students hold.

Figure 7   Attention media consists of wall stickers, Instagram stories and posts.

• Interest

The previous stage was more focused on the introduction of the campaign, at the interest stage a seminar would be held to re-introduce anemia to inform how to prevent and deal with anemia. The seminar will discuss anemia as a limitation in achieving a better future. This stage will begin by putting up posters about the seminars in schools and by using Instagram story ads to promote the seminar. Merchandise such as t-shirts and acrylic pins will also be distributed during the seminar period to students that participates in the activities.

Figure 8   Interest media consists of A3 poster, acrylic pins, t-shirt, Instagram story ads and posts.

• Search

The search phase is used to prepare and provide information about the campaign and its contents. The content of the campaign will be taken from a book published by the Ministry of Health on the prevention of anemia in Indonesia, entitled Handbook for Prevention of Anemia in Teens and Women. Students will be directed to the website at the seminar and a link will be posted on the campaign's Instagram account profile.

Figure 9   Search media consists of a two-page website and Instagram posts.

- Action

Interactive media at the action stage is another wall sticker where students can give their opinions or aspirations of their future, dreams, or achievements that they want to reach. The wall sticker is different from the attention stage, it will be an illustration of empty vases where students can paste post-it notes of flowers. The purpose of this is to keep the target engaged with the campaign and understand the connection between anemia and their future achievements.

The campaign will also distribute blood-supplement tablets as an effort to prevent and overcome anemia, to monitor the regular consumption students will be given a blood-supplement tablet monitor card as a reminder to take it every week. Merchandise such as pouches, tote bags and pens are given out as supporting media for the blood-supplement tablets.

Figure 10 Action media consists of wall sticker, post-its, tote bag, pouch, monitor card, pen and Instagram posts.

- Share

The share stage will begin with an Instagram post about the Instagram story competition which uses the Instagram filter prepared by the campaign. In addition, students can also use the Instagram gif as an Instagram story decoration. The purpose of the Instagram filter is so that students who take part in the campaign can expand the awareness of students from other schools regarding the campaign.

Figure 11 Share media consists of Instagram filter, post and gifs.

5. Conclusion

One in three young women in Indonesia is anemic. The government has attempted to prevent this by distributing blood-supplement tablets, however this effort was ineffective because after re-evaluation it is known that more than 98% of adolescents who receive it do not consume it. This matter is due to a lack of knowledge and understanding of the dangers and effects of anemia. Therefore, a social campaign is needed as means to invite and inform the adolescents about how to prevent and treat anemia.

Designing a social campaign for preventing and countermeasure of anemia for teen girls is conveyed by the approach where the campaign is on the same position as teen girls. Therefore, the campaign discussed the correlation between the dangers of anemia with achievements with the big idea small steps towards triumph. It is hoped that the campaign can provide information and invites teen girls to prevent anemia so that their future is filled with achievements without the effects of anemia.

6. References

Cindy, (2019). Anemia dan perempuan [Anemia and women]. Retrieved from http://www.rscarolus.or.id/article/anemia-dan-perempuan

Dinas Kesehatan. (2020). Kenali gejala anemia khususnya bagi remaja putri [Recognize the symptoms of anemia, especially for young women]. Retrieved from https://dinkes.tangerangselatankota.go.id/main/news/view/819

Landa, R. (2010). *Advertising by design*. New Jersey: John Wiley& Sons.

Nurgroho, I. (2017). Remaja putri dihimbau untuk minum tablet tambah darah [Young women are encouraged to take blood-added tablets]. Retrieved from https://bappeda.tangerangselatankota.go.id/main/news/view/394

Sartika. W., Suryarinilsih, Y. & Hermawati. (2019). Peningkatan pengetahuan tentang anemia pada remaja putri sesudah diberikan pendidikan kesehatan gizi dengan media buklet di SMP

sabbihisma padang [Increased knowledge about anemia in adolescent girls after being given nutrition health education with a booklet media in Padang Sabbihisma Middle School]. *Ensiklopedia of Journal* 2(1), 123-127.

Selamet, J. (2020). Human-Centered Design Approach Toward the Physical Activity Initiative for Work-from-Home Workers During the Covid-19 Outbreak. *The International Journal of Designed Objects*, 14(2), 1-17. https://doi.org/10.18848/2325-1379/CGP/v14i02/1-17

Suryani, D., Hafiani, R. & Junita, R. (2015). Analisis pola makan dan anemia gizi besi pada remaja putri kota bengkulu [Analysis of diet and iron nutritional anemia in adolescent girls in Bengkulu]. *Jurnal kesehatan masyarkat andalas* 10(1). 10-17. doi:https://doi.org/10.24893/jkma.v10i1

Venus, A. (2018). *Manajemen kampanye: Panduan teoretis dan praktis dalam mengefektifkan kampanya komunikasi [Campaign management: A theoretical and practical guide to effective communication campaigns]*. Bandung: Simbiosa Rekatama Media.

Wibawa, S. (2019). Jalan panjang upaya menangkal anemia pada remaja putri indonesia [A long road to ward off anemia in Indonesian young women]. Retrieved from https://sains.kompas.com/read/2019/07/16/203600723/jalan-panjang-upaya-menangkal-anemia-pada-remaja-putri-indonesia?page=all

Widiaputri, F. (2018). Indonesia menduduki peringkat ke 5 dengan jumlah anemia terbesar di dunia [Indonesia is ranked 5th with the largest amount of anemia in the world]. Retrieved from https://nakita.grid.id/read/02210199/indonesia-menduduki-peringkat-ke-5-dengan-jumlah-anemia-terbesar-di-dunia?page=all

About the Authors:

Margareth Irma is a 4-year undergraduate student in the Department of Visual Communication Design, Visual Branding Design, at Universitas Multimedia Nusantara, Indonesia.

Nadia Mahatmi is a lecturer in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia

A Social Campaign Design "BERAKSI" to Prevent the Transmission of Disease Through Physical Contact with Babies

Zora Clarisa[a], Juhri Selamet[b], Adhreza Brahma[c,*]

[a-c] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: adhreza.brahma@umn.ac.id; zora.clarisa@student.umn.ac.id

Abstract: Babies often make people around them "melt" and become targets to be held and kissed by relatives, family friends, and even strangers. When holding and kissing a baby, people often do not realize that they carry viruses or bacteria that can harm the baby because the baby's immune system is still underdeveloped. This project designed to encourage parents to refuse physical contact with their babies to prevent the transmission of a disease.

Keywords: Babies, design, direct contact, disease, health campaign, visual communication

1. Introduction

Babies often make people around them "melt". They are usually the center of attention and even become targets for kisses, hugs, and other forms of physical contact from relatives, family friends, and even strangers. Although it seems trivial, this can be fatal and endangers the life of the baby (Azz, 2013; Karnesyia, 2019; Nurrizka, 2019).

When holding and kissing babies, people often don't realize that they are actually carrying viruses or bacteria that can harm the baby. According to the author's interview with a pediatrician, Dr Rose Grand Chen, Sp.A, babies' immune systems are underdeveloped. So, they are very susceptible to diseases. The results of the priliminary survey the authors carried out on 138 parents with babies showed that they are worried when their babies are held and kissed by other people. This is because the person can pass bacteria and viruses to the baby. However, 76.8% of respondents found it difficult to refuse when their babies are held and kissed by others.

This is because most of the parents feel reluctant and uncomfortable, especially if the person is a relative. If parents continue to allow their babies to be kissed and hugged indiscriminately, it is feared that an increasing number of babies will contract diseases as a result of the direct contact with other people who are not aware that they carry viruses and bacteria that are harmful to the baby (Azizah, 2019; Hootsuite, 2019). Therefore, there is a need to design a social campaign to encourage parents to refuse physical contact between their babies and others to prevent the transmission of diseases to their babies.

2. Literature Reviews

2.1 Invite parents to dare to reject with the campaign

A campaign is a persuasive activity with a planned message that is carried out within a predetermined period of time which aims to change the awareness or attitude of the audience about something. Campaigns are divided into three based on their objectives: product-oriented campaigns whose main purpose is to gain profits and build a business' reputation by selling and marketing their products or services; candidate-oriented campaigns which are usually carried out by political candidates to achieve a desired position by attracting support from the public and ideology or cause-oriented campaigns whose main purpose is to create a change in attitude or behavior in related audiences in order to deal with existing social problems.

2.2 Campaign Media

According to Schramm, cited in Venus (2018), campaign media are the intermediaries used to convey campaign messages through (1) mass media and (2) social media. Through the (1) mass media, messages can be spread on a wide scale. The messages and information conveyed will continue to be spread within a certain period of time. The techniques used to spread the information are many and can change the mindset that exist in society (Venus, 2018). And (2) Through Social media. The use of social media as a tool for a media campaign is slowly replacing the mass media. This is because it has advantages that mass media lacks, including interaction, and its reach is believed to be considerably wider than that of mass media platforms (Venus, 2018).

3. Design Method

The authors used the method proposed by Gregory, cited in Venus (2018), to create the campaign design. The design process involved problem analysis, goal setting, target segmentation, determining messages, strategies and tactics, allocating time and resources, and evaluation.

Problem Analysis. The first thing the author did was identify existing problems so that they can be clearly stated. The author looked for information on the spread of disease through direct contact with babies from the internet and conducted a survey through questionnaires administered to parents of children to obtain data about their experiences when other

people have physical contact with their babies. The authors also distributed questionnaires to non-parents to find out their behavior when they meet babies. In addition, the authors interviewed pediatricians to obtain data and understand how diseases can be transmitted to infants through physical contact.

Goal Setting. After analyzing and understanding the problems, it was time to determine realistic goals so that the campaign has a direction to focus on.

Target Segmentation. During this process, the authors identified and segmented targets for the campaign. The campaign targets are divided into two: primary and secondary. In addition, the authors also did target segmentation using demographic, geographic, psychographic and behavioral perspectives.

Determining Message. After setting the campaign target, the authors carried out the message planning process. At this stage, the authors determined the main idea first and then continued with message management.

Strategies and Tactics. After the campaign message has been determined, strategic and tactical planning is carried out so that the campaign message can be conveyed properly to the target.

Allocating Time and Resources. This stage is a necessary for the campaign to be carried out well and on time. And *Evaluation*. The evaluation and review stages will be carried out after the campaign has been implemented to determine and review the achievement, if any, of the campaign and in the design of the next campaign.

4. Design Process

4.1 Design Strategy

After analyzing the problem, determining objectives, and target segmentation, the authors move to the design stage, starting from the determining the message based on Venus' campaign design method.

Determining the message. At this stage, the first thing to do is create a campaign theme. The theme is a general idea of various other messages (Venus, 2018). The theme of this social campaign is "preventing the transmission of diseases through direct contact with babies". Furthermore, the authors do mind mapping to determine the big idea. The mind mapping stage was done by describing everything that relates to the baby, from the character of the baby to the environment around the baby, and others. After that, keywords were generated, they are "*health, prevention, and habit*". During a brainstorming process, prevention was defined as actions by parents to reduce or eliminate physical contact between their babies and others. This includes refusing people who often make physical contact when meeting babies and health which means the health of the baby. Then after this explanation, the main message to be conveyed to the target in this social campaign is the courage to reject physical contact for the sake of the baby's health. According to available

data, parents are still reluctant to refuse those who want to have physical contact with their babies. In delivering this message, it is hoped that it can change the parents' thinking that this should be done, because the health of their babies is at stake.

For the communication strategy, the authors use the AISAS model (Attention, Interest, Search, Action, and Share) according to Sugiyama & Andree (2010).

Attention. At the attention stage, the message conveyed is the result if parents let other people make physical contact with their babies without supervision. Of the many other messages out there that are faced with the target every day, it is hoped that the campaign message can attract the attention of the target audience by displaying the consequences of physical contact with baby, because humans pay more attention to things that immediately concern them or are in their interests. *Interest.* At this stage, the authors conveyed a message in the form of an invitation to parents to dare to refuse physical contact with their babies in order to prevent the possibility of disease transmission. At this stage the website address and social media account of the campaign will also be displayed so that the target can seek further information about this campaign.

Search. After the interest of the parents, the target audience, has been piqued, in-depth information about this campaign via Instagram, Facebook, and the website, and more detailed information about the dangers of allowing unchecked physical contact with babies, and on how to refuse will be collated. *Action.* At this stage, the expected impact is that the parents begin to accustom themselves to reprimanding and rejecting people who want to have physical contact with babies for the sake of their baby's health. *Share*. At this stage, parents are is invited to share information about this campaign through GIFs on Instagram and other social media platforms.

Visual Strategy

Logo Design. To create an identity for the campaign identity, the authors designed the logo (Fig. 1) using the visual elements that have been determined to create a mind map of keywords. The authors included a hand visual with a refuse gesture and also named the campaign. The authors used the Londrina Solid Regular font for the campaign's text because the font has a good readability level with thick letters but is not too stiff because the letterform has the characteristics of handwritten strokes. The use of orange, a warm color, conveys warm invitations and warnings to the audience.

Figure 1   Campaign Logo.

Illustration Style and Character Design. The illustration style that the authors used is the flat design. This is because flat design is a simple, minimalist design that does not display unnecessary visual elements so that the audience focuses on the information and feels more involved. For character design (Fig 2), the authors characterized babies with diseases due to physical contact, and also parents with babies.

Figure 2   Character Design.

4.2 Design Results Attention stage

Posters. A3-sized posters (Fig 3) at the attention stage that will be placed in health centers, clinics where parents check their babies or routinely immunize their babies, and also in mothers and children rooms or nursing rooms in public places such as shopping centers. In designing the poster, the authors used visuals of babies who have been affected by several diseases due to physical contact and wrote copy that will attract the attention of parents who have babies.

Figure 3   Attention Poster.

Billboard. The visual elements used on the billboard are the same as the ones on the posters. There are vectors of babies with diseases, copywriting as well as logos and barcodes (Fig. 4).

Figure 4   Attention Billboard.

Instagram Ads. The authors used the same visuals and copy as the posters and billboards. The only difference is in the size on the Instagram ads, which, adjusting the Instagram size, was 1080 x 1080 px (Fig 5).

Figure 5   Attention Instagram Ads.

Facebook Ads. Just like Instagram ads, Facebook ads also used visuals and copy that are uniform with other media. There is, however, a slight difference in the design size for the Facebook ads, which are based on the space available for the ads (Fig 6).
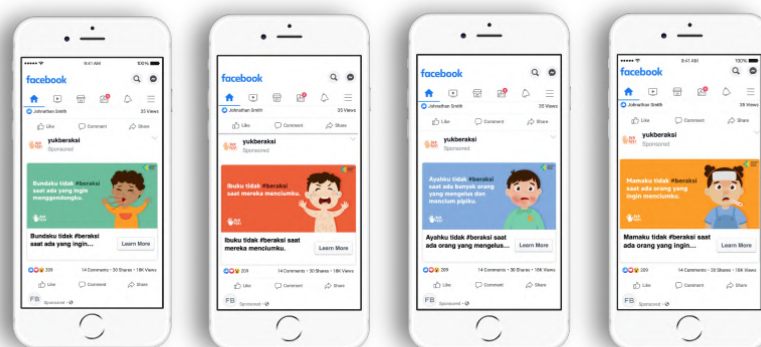

Figure 6   Attention Facebook Ads.

Web Banners. A web banner was placed on parenting websites that parents frequent. When designing the web banner, the authors adjusted the design size to the space provided—1:1—on the parenting website that was used. (Fig 7)
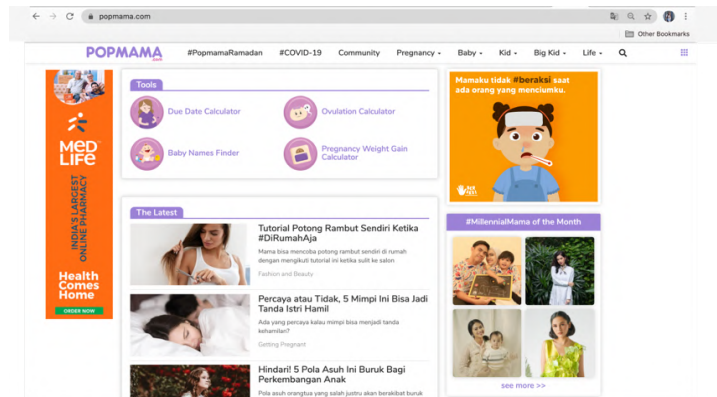

Figure 7   Attention Web Banner.

4.3 Design Results Interest stage

Public Service Advertisement. The authors made a sketch for a 30-second public service ad storyboard that was later displayed on TV and YouTube ads. The storyline of the public service advertisement was as short as possible while displaying all messages of the campaign. The first scene is focused on the baby and is filled with a voice explaining that the baby is very vulnerable, followed by the hand of the person who wants to touch it with a visual of the germs and a voice explaining how dangerous those germs are to the baby (Figure 8).

Figure 8   Public Service Advertisement.

Posters. Under this stage, which focused on the message to be conveyed—an invitation for parents to take action—the visual and poster copy are different from that used at the attention stage. At this stage, the authors vectored parents with their babies with the same refusing gesture (Figure 9).

Figure 9   Interest Poster.

Billboard. The billboard design (Figure 10) used the same visual elements as the poster at the interest stage, with the layout of the placement of the different elements adjusted for the landscape billboard. The billboard also included information about the website address, Instagram account, and Facebook account so that target audience can find more information about this campaign.

Figure 10 Interest Billboard.

Instagram Ads. The Instagram ads design (Figure 11) is the same as the visuals on other media in the interest stage, with a slight difference as the authors adjusted the size of the ads, which is 1080 x 1080. *Facebook Ads*. Facebook ads (Figure 12) are the same as those used in the interest stage with a slight difference in the size of the artboard used as they were adjusted to the size of the Facebook ads provided. *Web Banners.* The website that the authors chose to display ads at the interest stage is perential.com. The website provides space for 1:1 sized ad. Therefore, the authors adjusted the design size to fit the space provided by the website (Figure 13).

Figure 11 Interest Instagram Ads.
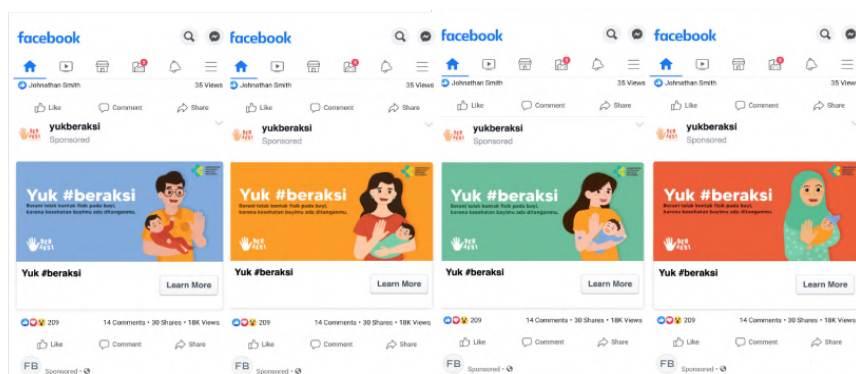
Figure 12 Interest Facebook Ads.
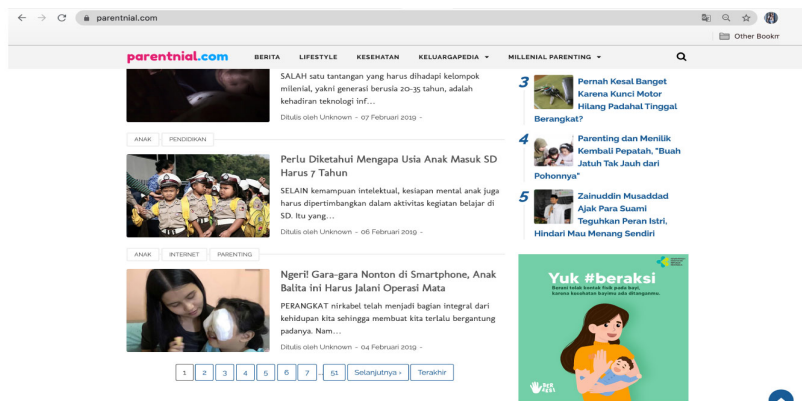
Figure 13 Interest Web Banner.

4.4 Design Results Search Stage

Website. At the top of the website (Figure 14), there is a campaign logo and the campaign organizer's logo. There are also options that can be clicked on to go to the desired website page: homepage, about us, merchandise, and campaign contacts. On the first page of the website, there is a visual of parents with an explanation of BERAKSI under it, then continued with the division of 3 discussions of BERAKSI, which are who, why, and how to BERAKSI,

which if clicked will lead to another page on the website. After that, there is a video display of public service advertisements on the BERAKSI campaign, which is also in the interest stage, followed by a display of campaign merchandise.

Instagram. In the Instagram account, the authors enter information about the same 3 topics discussed on the website and Facebook, namely who should "beraksi", why should "beraksi", and how to "beraksi". Before posting on these 3 topics, there is also a post containing calm rejection sentences that can be emulated by the audience (Figure 15). *Facebook.* On Facebook, the content is the same as Instagram but with different post sizes and following Facebook's size (Figure 16).

Figure 14 Website
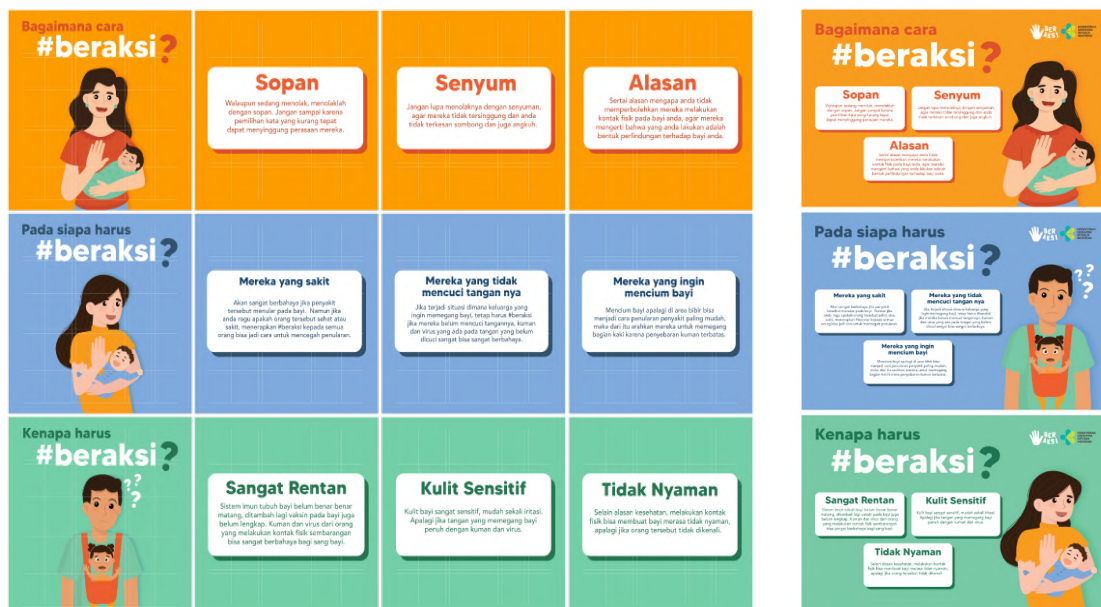
Figure 15 Instagram Post (left) and Figure 16 Facebook Post (right)

4.5 Design Results Action and Share Stage

Instagram GIF. In the action and share stages, the authors designed an Instagram GIF (Figure 17) that parents can use to participate in the campaign. In addition, parents can share information about the action with their friends on the account. The GIF that was made from a collection of interesting images that parents can use. For example, there is a GIF with bubble chat that says "the germs in your hand are very dangerous to me" which parents can use on their child's photos or videos, as if the baby is the one speaking.

Merchandise included *Baby Clothes* (Figure 18), pin merchandise (Figure 19) and the tote bag design (Figure 20)

Figure 17 Instagram GIF.

Figure 18 Baby Clothes.

Figure 19 Pin (left) and Figure 20 Tote Bag (right)

5. Conclusion

Babies are often the center of attention and it is not uncommon for people around them to make physical contact with them—stroking their cheeks, kissing them, etc. However, people do not realize that they actually carry viruses or bacteria that can harm babies whose immune systems are still underdeveloped. In addition, parents are reluctant to refuse when someone makes physical contact with their baby. After searching for data and then analyzing the problem, parents were sensitized on the dangers and consequences of allowing physical contact with their babies. The main message of this campaign was the courage to reject the physical contact for the sake of their baby's health. The authors conducted campaigns using the Antar Venus method and used the AISAS communication model to convey messages. The authors used a combination of mass media and social media—television, billboards, posters, YouTube, Facebook, Instagram, websites—as a campaign channel. The authors also designed merchandise to support the action and share process. This project was focused on the design process. This project design project's effectiveness is still unknown; therefore, this becomes the major limitation of this paper. Future studies on this topic should focus on design intervention using alternative design methods such as human-centered design (see Morrison et al., 2015; Vechakul, Shrimali & Sandhu, 2015; Selamet 2020) to study health promotion in the design and health inquiry.

5. References

Azizah, K.N. (2019). *Bayi 3 bulan Meninggal Akibat Infeksi Virus Setelah Disentuh Orang Asing*. Diunduh dari https://health.detik.com/berita-detikhealth/d-4540664/bayi-3-bulan-meninggal-akibat-infeksi-virus-setelah-disentuh-orang-asing?_ga=2.81077598.816551790.1582615549-1266739437.1570369769

Azz, C. (2013). *100% segalanya tentang bayi.* Yogyakarta: IN AzNa Books.

Hootsuite. (2019). Indonesian Digital Report 2019. Diunduh dari https://andi.link/hootsuite-we-are-social-indonesian-digital-report-2019/

Karnesyia, A. (2019). 5 Bahaya Mencium Bayi, Sebabkan Lumpuh Hingga Kematian. Diunduh dari https://www.haibunda.com/trending/20191215123922-93-72258/5-bahaya-mencium-bayi-sebabkan-lumpuh-hingga-kematian

Morrison, D., Mair, F. S., Chaudhuri, R., McGee-Lennon, M., Thomas, M., Thomson, N. C., ... & Wyke, S. (2015). Details of development of the resource for adults with asthma in the RAISIN (randomized trial of an asthma internet self-management intervention) study. *BMC medical informatics and decision making*, 15(1), 57.

Nurrizka, R. (2019). *Kesehatan ibu dan anak dalam upaya kesehatan masyarakat: konsep dan aplikasi*. Depok: Rajawali Pers.

Selamet, J. (2020). Human-Centered Design Approach Toward the Physical Activity Initiative for Work-from-Home Workers During the Covid-19 Outbreak. *The International Journal of Designed Objects*, 14(2), 1-17. https://doi.org/10.18848/2325-1379/CGP/v14i02/1-17

Sugiyama, K., & Andree, T. (2010). *The dentsu way: Secrets of cross switch marketing from the world's most innovative advertising agency*. McGraw Hill Professional.

Venus, A. (2018). *Manajemen kampanye panduan teoritis dan praktis dalam kampanye komunikasi* (edisi revisi). Bandung: Simbiosa Rekatama Media.

Vechakul, J., Shrimali, B. P., & Sandhu, J. S. (2015). Human-centered design as an approach for place-based innovation in public health: a case study from Oakland, California. *Maternal and Child Health Journal*, 19(12), 2552-2559.

About the Authors:
Zora Clarisa is a 4-year undergraduate student in the Department of Visual Communication Design, Visual Branding Design track, at Universitas Multimedia Nusantara, Indonesia.

Juhri Selamet is a lecturer in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia. He teaches Visual Design, Design Methods, Design Research and Environmental Graphic Design.

Adhreza Brahma is a lecturer and final project coordinator in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

Destination Branding Semarang Chinatown as a Cultural Heritage Site

Shania Helena Soetjipto[a*], Aditya Satyagraha[b]

[a] Faculty of Arts and Design at Multimedia Nusantara University
[b] Faculty of Arts and Design at Multimedia Nusantara University
*Corresponding author e-mail: shaniasoetjipto@gmail.com

Abstract: Semarang Chinatown area is one of the historical sites of Ancient Semarang Heritage City where there are cultural relics in store. Consisting of, viz.: architecture, food, stories, and environment that's prominent with a Chinese family style atmosphere. Ironically, numerous cultural assets contained in the Semarang Chinatown Area are less celebrated unlike Semawis Night Market since people envision the area Semarang Chinatown only has it as its prime and foremost attraction. People's awareness to to other cultural and historical assets is immensely minimal. Therefore, through this Final Project the writer has chosen to fathom this issue and to come up with a solution. By establishing a brand new and fresh visual identity, the author wishes to be able to introduce Semarang Chinatown Area as an integrated cultural historic area to a wider-reaching audience to array a large selection of richness of philosophy, culture, and value that will not only enrich the knowledge of visitors but also to entertain them with some aesthetic pleasure.

Keywords: destination branding, Semarang Chinatown, visual identity, cultural heritage

1. Introduction

The men of Fújiàn 福建 and Guǎngdōng 广东 (formerly Canton) embarked on an endeavour utilizing the waterway and arrived in Semarang, Central Java in the year of 1416, precisely in the area of *Simongan, Gedong Batu,* the home to *Sam Poo Kong Temple*. Later in (approximately) 1690, they relocated to the current Chinatown area as the population began to multiply in number. Therefore, they required a larger housing area to their extensions, as well as the resettlement mandate made by The Dutch East India Company *(Vereenigde Oostindische Compagnie or VOC)* administration and regime at that time. As stated by Changiyanto through a personal communication on February 3rd, 2020, As the time went by, in the new Chinatown area, these men had successfully constructed cardinal temples, enlarging trade ventures using the waterway (canal) to distribute commodities and goods.

These temples were also utilized as the embassy for China in Semarang for mainland-China emigrants. Still and all, the activities Semarang Chinatown administration were hegemonized by the Dutch government as its captured territory.

The objective of this project is having to witness a misled awareness people who only recognizes Semawis Night Market that is run by *Komunitas Pecinan Semarang untuk Pariwisata* or simply abbreviated as *KOPI Semawis* as the primary attraction of Semarang Chinatown. It is proven through a small survey that 65.5% admitted that they are aware of Semarang Chinatown. From the number of respondents who are aware of Semarang Chinatown, 60.6% are only aware of Semawis Night Market. Other small percentage of 39.4% are divided into other places such as *Pasar Gang Baru, Klenteng Tay Kak Sie*. Some of them admitted to never go to the Chinatown of Semarang. According to Ardian Changiyanto, other pivotal components of Semarang Chinatown are five major and oldest temples (*Yayasan Sinar Samudra, Tay Kak Sie, Wie Hwie Kiong, Hok San Tong and Siu Hok Bio*), restaurants that serve authentic Peranakan cuisines (*Boen Tjit* Restaurant, *Rumah Makan Tjandra, Lumpia Gang Lombok* and many other), historical social housing (*Rasa Dharma*), marketplace (*Pekojan and Gang Baru*) and other small businesses that are not as famous as the others, but as important to attract revenue (Changiyanto, personal communication, February 3, 2020). The first urgency is to elevate society's awareness and end a deceiving knowledge that has been there about Semarang Chinatown for many years that causes people to have a wrong idea about this place. As stated by Changiyanto through a personal communication on February 3, 2020, Semarang Chinatown deserves more exposure on its cultural and legacy matters. Semarang Chinatown is so much more than what the society knows. That statement reassured and strengthen the author's point of view to use this urgency. Creating a brand image for Semarang Chinatown should be done as "gate" to give more exposure to older culture, educational spots, small businesses, merchants, shops, values, authentic culinary, and history that almost unhappening, not-so celebrated and unrecognizable.

According to Junianto Damanik, business-wise, the most important contribution to the tourism industry of an area is divided into three pivotal points: one, revenue increase. Two, unbiased and equal development to every corner of the area and three, larger work chances. Any other way, there will be no significant development whatsoever (Svarajati, 2016, p. 10). The second urgency is a comprehensive destination branding has never been done before. Destination branding is a mixture of philosophy and the right design application. It's about crafting the right visualization that will evoke in mind and heart of the society (Tan, 2008, p. 1).

To compete, producing everything that requires coherent visual identity. The author believes Semarang Chinatown needs a brand image that consists of the association of suitable visual representation and philosophy so that it can depict what Semarang Chinatown is representing. To be aware of our history, then we would be able to increase our sense of belonging (Hilliker, 2018, para. 2). The goal is to bring out the vibrancy of Semarang Chinatown, raise awareness (on pivotal components), remain truthful, and perceived positively. Therefore, the author wishes to continue forward and strive in the accomplishment of Destination Branding of Semarang Chinatown as a Cultural Heritage Site.

2. The Significance of Applying Destination Branding to Semarang Chinatown

As stated in Oxford Advanced Learner's Dictionary, the word destination can be defined as a location in which things (persons, goods, messages) are sent to (p. 397). Whilst, branding is taken from the word 'brand', it refers to the name of various products or services that have distinctive qualities. One of the earliest written destination brand theory was initially provided in 1998. According to the statement of Nigel Morgan, Anette Pritchard and Roger Pride in 2004, there stated that destination branding is a manifestation a value of a brand. That statement is not yet minding about the effort to distinguish one place to its competitors and communicate what's unique and worth visiting. It consists of logo, color choice, and other visual and graphic components that distinguishes a destination from the other (p. 6). A man of scholar named Michel Girard stated in 1999 in the book Destination Branding by Anette Pritchard, Nigel Morgan and Roger Pride, that destination branding is begun in France. It's written in the history that France has undergone several "branding" since its revolution in 1789. France has ever been a part time egalitarian and absolute royalist, republican and imperialist, all changed time to time by the ruler of its time. First, there was Louis XIV and Marie Antoinette with the most extravagantly autocrat tradition of le Roi Soleil that took place in the Versailles. Versailles is the true embodiment of absolute strength and dignity (p. 18). The revolution didn't only disperse the traditional value, it also executed the royal family. It has also shifted the cultural and social system, republic was proclaimed and the flag of France, or as we all well-aware of, the Tricolor successfully eliminate Fleur de Lys Marseillaise, new calendar system is brought out, and many more.

3. Research Methodology

3.1 Design Methodology

To design the destination branding for Chinatown of Semarang, author has adapted a methodology form a guidebook titled Destination Branding: Creating a Unique Destination Proposition (2004) written by authors Nigel Morgan, Annette Pritchard and Roger Pride.

Here are the methodical phases:

- Market Investigation, Analysis and Forming Strategic Recommendations;
- Launching an Introductory Brand, Communicating the Design Vision and Mission
- Brand Implementation and Application
- Monitoring, Evaluating, and Reviewing Design

Phase 1 is Market Investigation, analysis and forming strategic recommendations. This phase is something very basic but crucial, therefore it must be done. Namely, finding the fundamental value of destination and brand or inherent top-of-mind identity of the design brand. The most important thing is, this brand must be timeless, sustainable and relevant to the market. It can be very well interpreted and has a certain level of significance to tourists.

The author has completed several tasks regarding this suggested step. The research is done qualitatively and quantitatively. First, conducting a series of interview sessions with the individuals whose daily lives, working fields are spent in the Semarang Chinatown or pursuing education in this matter. The first informant was Ardian Changiyanto who works as a cultural practitioner as well as a professor in *Soegijapranata* Catholic University. Second informant was Widya Wijayanti, founder of KOPI *(Komunitas Pecinan Semarang untuk Pariwisata)* Semawis who is also a celebrated architect whose working field covers (together with a team) revitalizing the area of *Pusat Kota Semarang Lama (Kota Pusaka Semarang),* which includes the area of Chinatown. The third were the merchants in Semarang Chinatown, Yoko Haryanto, Yek Djing, Indrayati and Olivia who are second and third generation business-owners in Semarang Chinatown. And last but not least, headwoman of Semarang Chinatown, Candra who organizes Chinatown's people and activities. A series of questionnaire has also been conducted to assess and make an estimation on people's knowledge towards this area. Lastly, a field observation has been finished conducted to know how people's daily activities, also assessing accessibility and what are the problems that can be solved design-way.
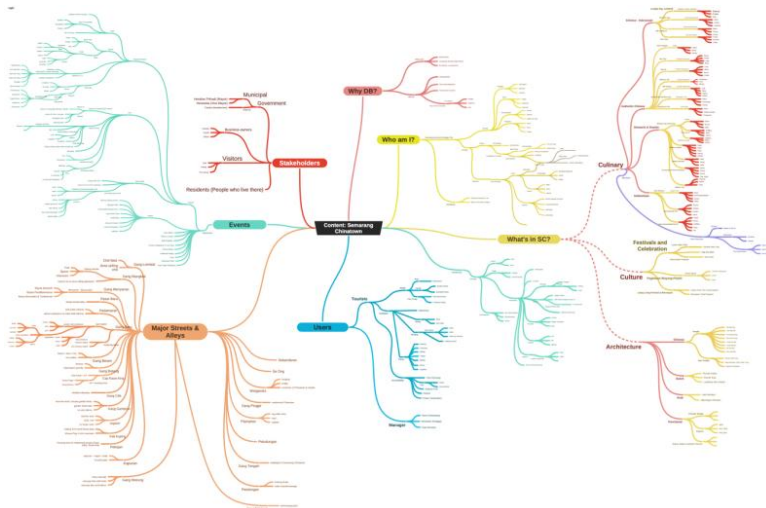

Figure 1   Universal mind map, where the author assembled almost every data she had collected in one place. It is (arguably) too big, therefore the author needed to compartmentalize these data in order to extract the most important information.
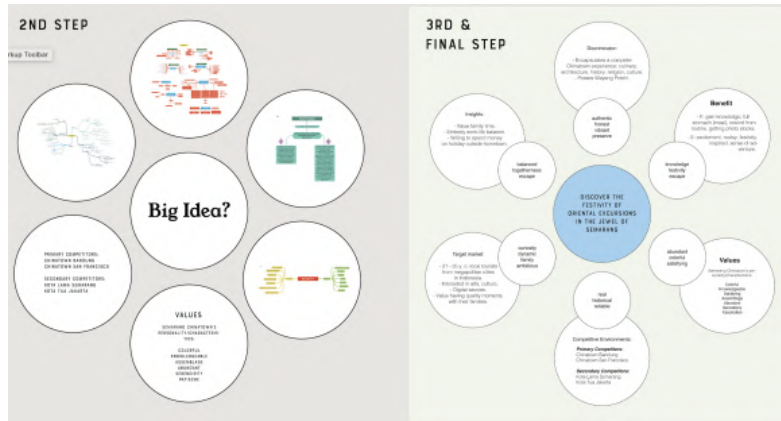
Figure 2   The figure above shows the compartmentalized data from the universal mind map. The method that the author used was brand DNA. As far as she concerned, this method is convenient and has helped the author to eliminate secondary data that was exiguous.
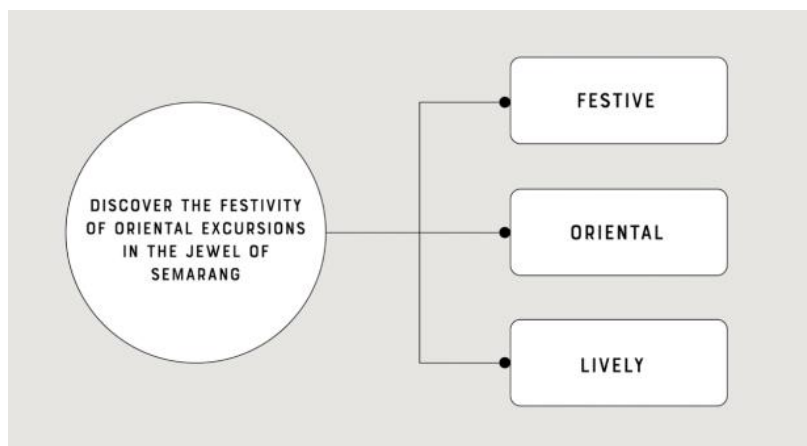

Figure 3   Upon finding the big idea, the author extracted the sentence to three major keywords to be used to set the ambiance of the visual identity of Semarang Chinatown's Destination Branding, they are: festive, oriental, lively.

The second phase is developing the brand identity. Developing a brand identity from a destination is the second phase that must be taken. The aim or main goal is to find the concept of this brand, how author is going to identify it is using the brand benefit pyramid method. When the core values have been found, the next step that must be done is making an elaboration on the brand identity description. To do that, author must elaborate on deciding which color, typography and few adjustments about how the brand wants to be perceived and remembered as. This is done to make sure that the message that the brand wants to convey can be understood by the receiver and it can also be communicated effectively, also evoke the emotions of visitors. This step has helped the author to define who shall be the target for this branding. Demographically, the primary target are the people whose age ranges from junior adulthood to senior adulthood (21-35 years old). The reason for choosing people from these ranges because they have similar characteristics on being able to identify what they want and having the ability and capability to manifest them.

Geographically, the primary target for this research is intended for people who resides outside Semarang area such as Jabodetabek area, Special Region of Yogyakarta, Surabaya, Bali and countries outside Indonesia. Psychographically, this project is intended for both local and international visitors who have fascinations on history and cultural heritage that consists of beautiful architectural structures, traditional foods and cultural attractions.

To conclude, this step demands author to decide a positioning using the x-axis (horizontal line) and y-axis (vertical line) to make a coordinate. Narrowing the formulation of key messages, and finally articulate design/creative briefs and make an agreement with supervisor. Phase three is talking about launching an introductory brand, in this case communicating the design vision and mission. This step is intended to launch the results of brand identity, and eventually communicate and elaborate the vision and mission of the whole design process [6]. The attempt on reaching to the big idea is through multiple provoking sets of questions and some tools that allow the author to build this brand ground up. After formulating the big idea, it is time for the author to start designing the brand identity system. By that, author means deciding the signature that consists of brandmark and logotype, colors, sound, typeface, presentation, where will this design be applied to, be it on internet or conventionally. The applications that the author plans to use are: manual sketch then imported to Adobe Illustrator, Adobe InDesign, Adobe Photoshop.

Phase four is talking about the brand implementation and application. There are various ways to introduce a destination brand on a destination. One of them is to use the services of celebrities as a figure relevant to the brand and well known to the public to influence and move people's hearts to come. A successful destination usually has a level of consistency, relevance and advertising that is both attractive and creative. Also, never not forget the core ideas or values that are owned by the destination. Visual communication of the essence of this destination is prohibited, misdirected so that there is no misperception in the wider community.

And the last step is monitoring, evaluating, reviewing design. Supervision, evaluation, review and review are forms of open-mindedness and the willingness to accept change is a quality that must be possessed destination to be successful and always relevant. Although the situation is very dynamic and the mobility of change is very high, evolving without remembering the basic essence this brand will remove its main foundation. The key is to always maintain the brand personality that was formed from the beginning, but must there is still a sense of willingness to continue on evolving, moving according to the times, driven by what is becoming a trend in society. Open-mindedness will enrich a destination, as long as it does not forget the essence most basic brand.

3.2 Use of Visual Materials

The whole design strategies are derived from the method conducted by Nigel Morgan, Annette Pritchard, and Roger Pride in their book called Destination Branding: Creating the Unique Destination Proposition. The book that the author stated became the handbook that

she has been using during the process on obtaining needed data for this project. In which states that the first step of creating an ideal destination branding for Semarang Chinatown is by doing a market investigation, analysis and forming strategic recommendations. This particular step is used to further enrich the author's knowledge to compile the needed materials as the building blocks of destination branding of Semarang Chinatown. This research will bring a clearer vision towards the value and the richness of Semarang Chinatown that the author wishes to deliver. After finishing the first step of this research, the author began to start her attempt on assembling the few methods of observation, and data compiling, author began to assemble the data with mind mapping method that was originally invented by Tony Buzan to help author's thinking by visually structuring ideas and analyze compiled data. The purpose of making a mind map is intended to compartmentalize the problems that Semarang Chinatown is facing as a destination, the purpose of this destination, what becomes the attraction points of this destination, and what are the positive impacts once Semarang Chinatown's brand identity is made. In the end, the author was able to discover problems that can be solved with a graphic design solution as it is the sphere of the author's studies in university.

A sense of festivity is one of the three qualities that wanted to be accentuated. This word is related to festivals that are held in Semarang Chinatown. The mood that is attempted to be reached is a feeling of constant somber atmosphere, cheerfulness and jovial celebration amongst all tourists who come to this lovable destination. The term oriental is comprising the things that belong to the eastern culture. Semarang Chinatown possesses a great amount of unique Chinese culture whose stories are worthy to be told and shown as it is what makes the city of Semarang vibrant and multicultural.

A.1. Building the Logo

As a tourist destination, it's important to keep tourist active, energized, and presenting a series of fun and educational activities to entertain them. Semarang Chinatown has it all. The brand proposition for Semarang Chinatown wants to identify that Semarang Chinatown is an heirloom to authentic Chinese culture precisely established in the heart of the city of Semarang. This area encapsulates a complete Chinatown experience. Extensively from culinary, architectural, historical, religious, and cultural festivity. By preserving its rich oriental heritage, Semarang Chinatown is able to embody traditions that have existed for generations. Its accessibility has also allowed this warm tradition to peak people's fascination to experience it even more.

From the tone of voice and big idea found in the previous point of this essay through the help of the Brand DNA method, the author proceeded to the assembly of Semarang Chinatown's logo. The initial step was by making a mood board that will be very useful to select the right portrayal of illustration, typography, color scheme and all other crucial components in forming the whole brand identity for Semarang Chinatown. As stated by Alina Wheeler in 2013, logo is one of the most important components in brand-making as it renders a service of exhibiting a brand's personality and revealing what is it that this brand has to offer to people. The purpose of making a mood board with of course, a thorough observation and a comprehensive deliberation is to set out boundaries on the images, text and some samples that the author will use for the design process.

Figure 4   The final logo of Semarang Chinatown

A.2. Imageries and Supergraphic

An identity branding usually comes with a series of supergraphics produced alongside with the logo. These imageries and supergraphics help Semarang Chinatown's brand identity to be more easily recognized. These imageries and supergraphics are usually portrayed using the components that are familiar with Semarang Chinatown as an area with a lively and oriental festivity. In this section, the author presents the supergraphics that emphasizes festivity by using mandala shaped fireworks to remind viewers about the exhilarating and electrifying celebration in Semarang Chinatown. One of the examples is the Chinese New Year celebration held annually. These are the explorative shapes that the author made as a pattern.
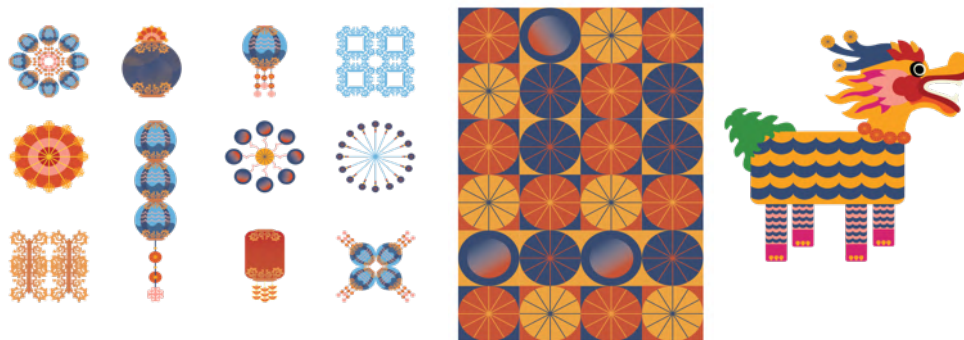

Figure 5   The supergraphic for Semarang Chinatown's Destination Branding

B. Design Results

Here are the design results:

B.1. Office Collaterals

Corporate items are used as the signification of the legitimacy of Semarang Chinatown's formal letters. It can be utilized as both internal and external administrative purposes. An ID Card's main purpose is to identify and verify its holder as who they claim to be. This ID Card is mandatory for all Semarang Chinatown officers to have in hand. While envelope is an essential form of packing to pack Semarang Chinatown's formal letters. It can be operated to send letters to internal and external agencies. A stamp is purposed to authorize any documents sent out by Semarang Chinatown. It is also faster and more efficient way to sign many letters.

Figure 5   Stationeries and collaterals for administration purposes

B.2. Instagram Feeds

The Instagram account of Semarang Chinatown will be for giving information about workshops, featured restaurant, and many information about festival schedule. The information that is being displayed in Instagram will have a synergy with the ones stated on Facebook, Website, YouTube, and other social media platforms that belong to Semarang Chinatown. The tone of the social media of Semarang Chinatown will also play a role of being helpful and friendly.

Figure 6   Instagram feeds layout, combining imageries and supergraphic.

B.3. Graphic Standard Manual

In order to make the Graphic Standard Manual look neat and tidy, author has configured her Graphic Standard Manual according to the grid system and columned symmetrical grids. The cleanly organized layout is gained by the clear division of texts and images in every page of the manual which increases its readability and aesthetics. The author used column grid initially, but the help of horizontal gridlines can help make it much neater.

The division of the text is visible in the placement and emphasis of each chapter's headline, subheading, and body. It is also to further increase readability by creating a comfortable reading flow, by using its font sizes and text arrangement to differentiate between headlines, subheading, and body. The constructed Graphic Standard Manual uses English as its sole language as English is internationally used. It is used so that anyone who needs it will easily understand its meaning and intention. Semarang Chinatown's Graphic Standard
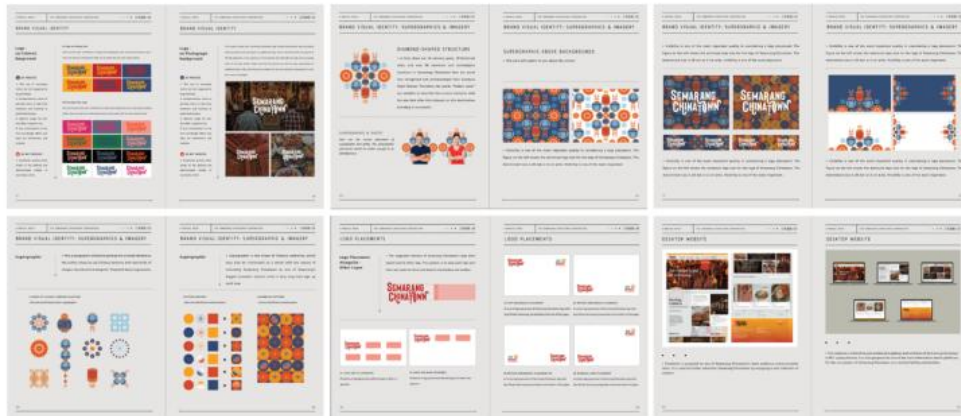
Figure 7 Layout for Graphic Standard Manual

Manual also gives its holder a reference on how the application of its components should be utilized. Guarding the brand's consistency and clarity is also the main function of the Graphic Standard manual so it does not stray away from the fixed brand identity.

B.4. Merchandise

The visual identity of Semarang Chinatown can also be applied on items that will be sold in the form of merchandise. The purpose of merchandise is to elevate people's awareness of this brand and get reminded of it as they wear the items. The design process of merchandise is rather pliable and using the exploration of the brand's visual identity. The use of primary color is still intensely visible here. The first set of merchandises are notebooks, pins.
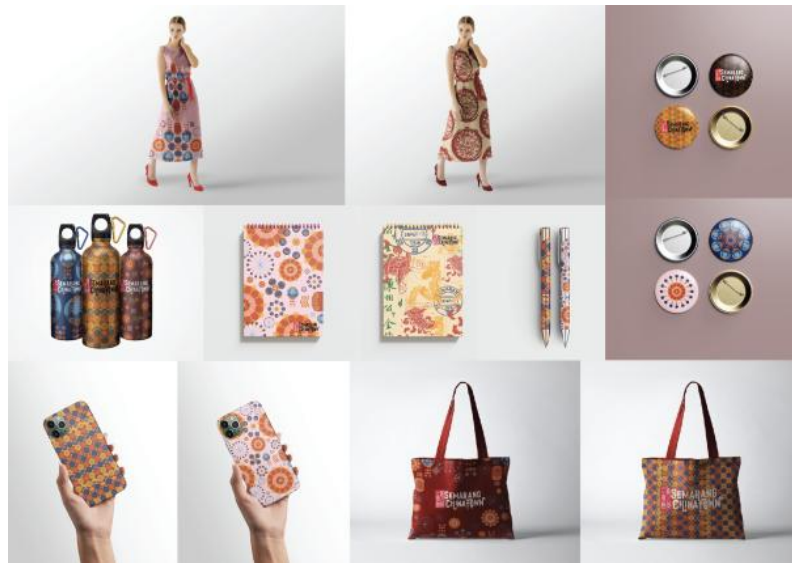
Figure 8   Merchandise to be sold at Semarang CHINATOWN.

B.5. Vehicle Branding

Vehicle branding serves a use as the moving advertisement for Semarang Chinatown. Actually, the car is also doubling the role as an administration car. The pedicabs are used for telling people to enjoy Semarang Chinatown the old way, by going around using the pedicap. There hasn't many encountered pedicaps in Semarang other than in Chinatown area. The bus itself pays a role as a vehicle that will carry tourists around Semarang Chinatown and hopefully there will be a tour guide who will show these tourists
what lies in the hidden jewel of Semarang that will surely be mesmerizing.

Figure 9   Vehicle branding for car, bus, pedicab that will operate in the area of Semarang Chinatown. The car will be used for administration purposes, the pedicabs and busses will take tourists around the area.

B.6. Hanging Banner

Hanging banner is one of the most important tools in promoting this destination because when it is placed in the right spots, people will see it clearly and they will be intrigued. So, placement is one of the most important components that needs to be considered very well in order to gain some important usage for this destination.

Figure 10 Hanging banner is mainly used as a way to promote events or shows that will be held in Semarang Chinatown. They will be located in the areas outside Semarang Chinatown

B.7. Gate to Semarang Chinatown

The next one is the main entrance gate signage for Semarang Chinatown's entrance. The street is 12 meters wide, measurement for this signage is 400 cm in length x 170 cm in height, the size is considered big enough to show Semarang Chinatown's logo from the distance of 50 – 75 m on normal eyesight. Other advantage of placing the signage is very strategic as this gate is the main entrance of Semarang Chinatown, located in Jalan Kranggan where there is a crossroad transversing the area, it can be concluded that the placement of this signage is highly visible by people and vehicles passing by. The wireframe for this signage is constructed using iron frame with the size of 40 x 60 mm, and the thickness of the iron frame is 1.6 mm. Later, the iron framing will be painted with a dollop of black ducco paint. And the rest of the signage is constructed using acrylic and LED module light.

Figure 11 Gate to Semarang Chinatown located in Jalan Beteng. Both seen during day and night.

4. Conclusion and Suggestion

After a series of theoretical literature studies and data collecting journey about destination branding and Semarang Chinatown, it can be concluded that developing a process of building the suitable destination branding for Semarang Chinatown can be closely linked to opening up the gate for people to access the cultural heritage of Semarang Chinatown easily. The destination branding highlights the important matter that Semarang Chinatown has to offer and packed them in a visually-delightful manner without losing its fundamental values as a legacy from the ancestors. Then, the visualization which was extracted from the most quintessential elements of Semarang Chinatown is enough to influence the interest of people, it describes the atmosphere and core messages so it propels people's interest to visit Semarang Chinatown and savor the oriental richness. Everything is done by developing the most suitable visual elements of layout, typography, illustration, and color selection with the focus of delivering the oriental, festivity, and lively atmosphere and ambiance. Future design should explore more variety of design products such as mascot design character to promote a city branding (Satyagraha & Mahatmi, 2019). One of the hard times that the author was facing was having to set the right mind with all the defense examiners about the use of supergraphics. Between the formal and informal supergraphics. But at the end of the day, it was already resolved.

The author had successfully learned something, that is about using the right amount for supergraphic to make sure the identity is more likely to be united and misunderstanding doesn't happen anymore. The making of destination branding for Semarang Chinatown takes quite a long process. To maintain the progress, always keep a time-table or to-do list to stay on track especially during data-collecting process. By doing a field observation that also has been used for creative design before (Selamet, 2018), the author was required to immerse in the experience of living in Chinatown for a determined amount of time, from early in the morning until the sun sets. Making documentation, conveying conversations with the locals, walking from one alley to the other winding alley and experience Semarang Chinatown furthermore. This kind of method of data collecting will take time. But as long as the author uses the time wisely, there are solid chances that the author will find the data on time to further proceed to other step of the observation.

The design process takes a fairly long amount of time, the process of obtaining the most suitable graphics also take time. One of the things that should be prepared is our well-being. When our well- being is maintained and taken care of, ideas and the feeling of contentedness and happiness will overflow. The author had faced a moment of dissatisfaction and creative block that keeps the author's performance from progression. After a series of resting, the author was able to come back stronger and continue a solid journey thus, resulting tremendous amount of progression. One of the things that sometimes forgotten by fellow Final Project fighters is that they forget to reconnect with their deepest beings and always keeping a protracted attitude. Sometimes a setback can launch anyone far forward, so therefore, the author encourages anyone who is attempting

to re-make the branding for Semarang Chinatown or anyone who is currently preparing to engage in this priceless experience of conducting a Final Project in Multimedia Nusantara University. No matter what the topic will be, always ask guidance from the supervisor, fellow Final Project fighters, and your deeper self. Ask what you want, elaborate your thinking, listen to some good music which keeps the focused ambiance and build up the mood, and sleep. Sleeping will allow your subconscious mind to generate important ideas, at least that's what the author has done to regain her strength and claim these ideas. To top it all off, consistency is the ultimate quality that anyone needs to have to tackle this Final Project. Using the time given wisely helps finishing the final project on time, when it is supported with the honed skillset, it will make an excellent combination.

5. References

Aaker, D. A. (2010). Building strong brands. New York: The Free Press.

Clifton, R., Ahmad, S., Allen, T., & Anholt, S. (2009). Brands and branding.

London: The Economist Newspaper, in association with Profile Books.

Govers, R., & Go, F. M. (2009). Place branding: glocal, virtual and physical identities, constructed, imagined and experienced. Basingstoke, Hampshire: Palgrave Macmillan.

Judisseno, R. K. (2019). Branding destinasi dan promosi pariwisata [Destination branding and tourism promotion], Jakarta: PT Gramedia Pustaka Utama

Landa, R. (2006). Designing brand experiences. Clifton Park, NY: Thomson Delmar Learning.

Liem, T. J. (1933). Riwajat Semarang: Dari Djamannja Sam Poo Sampe Terhapoesnja Kongkoan. Semarang-Batavia: Boekhandel Ho Kim Yoe.

Long, L. M. (2004). Culinary tourism. Kentucky: University Press of Kentucky.

Morgan, N., Pritchard, A., & Pride, R. (2015). Destination branding: creating the unique destination proposition. London: Routledge.

Satyagraha, A., & MAHATMI, N. (2019). Study of Mascot Design Character As Part Of City Branding: Malang City. *Ultimart: Jurnal Komunikasi Visual,* 11(2). https://doi.org/10.31937/ultimart.v11i2.1019

Selamet, J. (2018). Indonesian Batik Translation: A Case Study. The International Journal of Visual Design, 12(3), 11–17. https://doi.org/10.18848/2325-1581/CGP/v12i03/11-17

Sugiyama, K., & Andree, T. (2011). The Dentsu way: secrets of cross switch

marketing from the worlds leading advertising agency. New York: McGraw-Hill.

Tio, J. (2000). Kota Semarang dalam Kenangan. Semarang: Pemerintah Kota Semarang

About the Authors:

Shania Helena Soetjipto is a senior year student in Multimedia Nusantara University majoring in Visual Brand Design, also the author who conceived the idea behind *Destination Branding Semarang Chinatown as a Cultural Heritage Site*. Besides branding, she is passionate about culture, fashion illustration, and nature photography. Graduated recently in 2020, she has just begun to start a new business in the creative industry, as well as a junior project manager in an advertising and consultant company.

Aditya Satyagraha, S.Sn., M.Ds. is a lecturer of Multimedia Nusantara University who has supervised this project with his merit for the Faculty of Arts and Design. His renowned range of skillset includes illustration and directing for a brand's value and visual branding. Besides that, Satyagraha excels in directing for book-layout making, directing for a visual establishment for campaigns, as well as copywriting.

Campaign Design About Oxybenzone and Octinoxate-Based Sunblock Hazards for Survival of Coral Reefs in Bali

Joscelind Lukas[a*], Darfi Rizkavirwan[b]

[a-b] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: joscelind.lukas@student.umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1126

Abstract: The condition of coral reefs in several locations in Indonesia is indeed in critical condition and the impact of damage continues to grow every year. Sunscreen, which is one of the mandatory requirements used for skin protection to prevent sunburn, has dangerous substances oxybenzone and octinoxate, causing unconscious damage. Substances in sunscreens make coral reefs lose their adaptability to climate change which also damages coral reefs and prevents the growth of coral reefs. This topic is important because coral reefs have many ecological, social and economic influences and benefits that are very useful for life. Therefore, it is necessary to design a campaign that is made with the aim that this topic can increase awareness of campaign targets and readers with information that can be accounted for so that the risks of damage to coral reefs can be reduced. This design is carried out through the process of collecting data, formulating strategies, thinking ideas, designing visuals, and applying them to campaigns.

Keywords: Coral Reef; Sunblock; Campaign; Sunscreen; Bali; Damage

1. Introduction

Indonesia as a tropical country, has a very good climate for coral reef growth. Indonesia is the place to spread the highest types of coral reefs by contributing to the total area of which reaches 73,000km2 or 1/8 part of the world's coral reefs. As one part of The Coral Triangle, Indonesia has around 569 species of coral reefs and also has 5 types of endemic coral reefs. However, many coral reefs in Indonesia have been damaged. According to data from the Indonesian Institute of Sciences, only 6.56% are left which are in very good condition with a percentage of 75-100%, 22.96% in good condition with a percentage of 51-75%, in sufficient

condition as many as 34.4% with a percentage of 25%-50% and bad conditions at 36.18%. Every year the condition of coral reefs in Indonesia continues to decline.

70% of coral reefs in Indonesia in 2015 were in critical condition and the numbers continue to grow each year. This condition is certainly dangerous because coral reefs have many benefits for life. In and around coral reefs live various kinds of marine life, which are generally avetebrate animals (algae, turtles, small fish, sea snakes, sea stars) which means that coral reefs are habitat and food source for millions of species in the sea, so making coral reefs as the largest marine ecosystem. Secondly, coral reefs as a very high economic potential in tourism, food sources and medicines if they are in good condition. Then the next benefit is that coral reefs have an important role in protecting the coast so as to protect the surrounding ecosystem. Coral reefs also function to reduce global warming such as trees, employment sources and natural laboratory resources which are very important in supporting the education and research of various sciences. So that if a coral reef is lost from an ecosystem or there is a continuing decline in function, this will have serious consequences for the entire marine ecosystem, and which depend directly or indirectly on the coral reef.

Based on data collection that has been done by the author with questionnaires, interviews, observations that have been done before at the research section and data from scientific journals, the authors found that sunscreens that contain oxybenzone and octinoxate have a dangerous and significant impact on coral reefs. Recent research published by the Journal of the Archives of Environmental Contamination and Toxicology shows that sunscreens contribute most of the damage to coral reefs so far. A total of 6-14 thousand tons of sunscreen used by humans have been recorded killing marine ecosystems and the worst affected are coral reefs. Two types of very dangerous substances that are commonly found in sunscreen products are oxybenzone and octinoxate which slow down growth, increase stress and poison the life of coral reefs. Therefore, it raises important aspect on thinking environmental communication (Pezzullo & Cox, 2017) and risk communication presumed to work better as a two-way design process (Selamet, 2019).

Basically, sunscreen is a skin care product that helps protect the skin from the dangers of UV rays that cause various skin problems when exposed directly. Some of the consequences caused by exposure to UV rays are premature aging, black spots, the risk of skin cancer to sunburn. Based on the data obtained by the author, to avoid the various consequences above, the use of sunscreen becomes a necessity when under the sun by most people and the majority of people do not know the negative impact of using sunscreen for the sea.

Therefore, based on the data mentioned above, the authors feel this is very important to do a campaign about the dangers of sunblock based on oxybenzone and octinoxate that are detrimental to the survival of coral reefs and the lack of public understanding of coral reefs. Through this campaign, it is expected to be able to increase public awareness about the existence and importance of coral reefs for life and also so that people can wisely use sunscreen products that are friendly to coral reefs and also the sea.

2. Literature Reviews

2.1 Social Campaign

Pfau and Parrot (2015), define the campaign as a gradual and ongoing process that is done consciously to influence the intended target with specific goals and time periods. According to Simons, a successful campaign is very much determined in the design process, has a basis that can be accounted for and its technical application. The important goal to be achieved from the campaign activities according to Ostergaard is awareness that talks about raising understanding or changing one's thinking power on the issues raised. Then, attitude which means the emergence of a sense of caring about an issue discussed. Action talks about the actions that arise after going through a phase of awareness and attitude.

2.2 Campaign Strategy

According to Sugiyama and Andree (2011), there is a change in behavior when there is a boundary between brands that offer services and their target customers. This limit is called "Information barrier" which means individuals in society are currently sorting out what information they will notice or make them interested. So, there is a new approach to jumping over the "information barrier" by building interest from the start and keeping it that way. According to Kotler, to get interest talking about Increase Attraction through the value of strategies and attractive propositions with good communication. Then the second most important thing is optimizing curiosity. Curiosity will lead the target to find deeper information with personal will so that what is touched will be deeper because through what we want to know rather than what we know or already know.

According to Sugiyama and Andree (2011), the change in behavior towards the information created a new consumer model called AISAS which stands for Attention, Interest, Search, Action and Share. How AISAS works is basically a target who has an interest in something will look for information that will appear differently and when one of the information succeeded in making the target consumer approve the idea or information offered based on the thought power of each individual.

2.3 Media

According to Dietrich and Livingston (2012), there are repeated mistakes that are often made in the application of the media that is using the same delivery method on each platform even though the media has a type classification because it has different functions and objectives. Combining several types increases message delivery more effectively by absorbing information with many approaches.

According to Arora (2018), Above the Line or ATL is a sector that has a broad scope of time and is not specific. Examples are television, radio and print advertisements such as magazines and newspapers. Then BTL or Below the Line is a sector that has a clearer and more specific mass scope. Marketing activities carried out are only based on the intended target audience which refers to age, psychographic, behavioural, geographical and others. Examples are outdoor advertising and sponsorship. Finally, Through the Line is a merger

between ATL and BTL marketing. Aim to get a view with a variety of approaches. An example is an offline booth with a website

2.4 Study Area-Bali

Indonesia's location is at the epicentre of the distribution of the world's coral reefs in the region of the coral triangle and tropical climates causing Indonesia to store the highest marine biodiversity in the world. Indonesia has the highest number of coral reefs of 569 species with 83 genera. According to Wahyu, in Raja Ampat, eastern Indonesia itself has 75% of all types of coral reefs in the world and 5 of them are endemic coral reefs. Based on data from the Central Statistics Agency, the choice of destination for the number of tourist arrivals with the highest ranking from all of Indonesia in 2017-2020 is Bali. The large number of tourists who come to Bali certainly has an impact on this problem. The reason is because Bali is famous for its beautiful sea which attracts tourists from all over the world.

2.5 Study Objective

By following of Landa (2015)'s design strategy, this current design study objective is to develop an effective campaign design for sunscreen hazards in Bali.

3. Design Method

In designing this campaign, the writer uses Graphic Design Solutions book theory according to Landa, there are 5 phases in the graphic design process, which are orientation or data collection, then analysis and strategy, the third is a visual concept, then the development of the design and finally the visual implementation.

Table 1 Five Phase in The Graphic Design Process.

Phase 1	Orientation/Overview
Phase 2	Analysis and Strategy
Phase 3	Ideas
Phase 4	Design
Phase 5	Implementation

- Orientation/Overview
  In the first phase, orientation is about how the writer recognizes the phenomena, problems and solutions discussed in the design. Collecting data either quantitative or qualitative relating to sources and respondents in accordance with the topic.
- Analysis and Strategy
  After the first phase, conduct data analysis in order to obtain the right strategy to overcome the problem according to the specified target. The designer must know the right data to support the continuation of the design. From the data obtained, the designer tries to find solutions and the right media to answer the problem orientation.
- Ideas

Build efficient graphic design solutions according to visual concepts according to data obtained in the analysis and strategy process. Concepts are formed through a brainstorming process which later becomes the basis for design design.

- Design
  Make sketches for visual development and concepts which then proceed to the digitization process. In this phase visual exploration is carried out to find the most appropriate visual expression.

- Implementation Design
  The last phase of the graphic design process, the application of the design development that has been done has become the desired design output.

3.1 Research

According to Creswell (2009), mixed-method is an advantage to get data with insight so that problems in research will be clearer to understand. From this method, the writer will get 2 types of data, qualitative and quantitative. Data collection was conducted qualitatively by interview and direct observation. Whereas quantitative data collection was carried out by conducting questionnaires distributed with the aim of knowing the habits and knowledge of the target respondents about sunscreen and Indonesian coral reefs.

Observations were made on February 21-22, 2020 in Bali, Indonesia. This observation provides many new facts for the writer about the actual conditions in the field. Observations were made on several beaches (Kuta, Tanjung Benoa, Nusa Dua), shops that provided sunscreen (Circle K, Guardian, Kimia Farma, Mini Mart) and underwater conditions in Nusa Dua waters by snorkeling. The conclusion from the results of the observation that has been done is, the majority of tourists use sunscreen on the beach. 6 of the 8 sunscreen brands observed in several places in Bali contain 2 dangerous substances, oxybenzone and octinoxate. The condition of coral reefs in Nusa Dua waters is also not in a good condition.

4. Design Process

At this stage the authors brainstorm and find keywords, big ideas, tone of voice, visual concepts and visual references as a basic reference in the entire process of designing a campaign. From this process found 3 keywords as the foundation of the design of this campaign namely protect, safe and legacy. Followed by the determination of the big idea that is the big idea Don't Let Your Protection Destroy Other's. The definition of this big idea is not to allow the protection used to damage the protection of other people or living things.

Then through the thought process, the concept raised for the design of this campaign is see the unseen - comparison. After the brainstorming process, mind mapping, determination of big ideas and visual concepts, the steps are followed by determining the tone of voice or the method of delivering the message in the design of this campaign. In delivering messages, the authors determine the tone of voice with honest and direct. This is to show that the message given is clear and well conveyed.

Figure 1   Moodboard

The selection of images that are on the moodboard because it shows protection, security and inheritance that can be broken down into various definitions. Almost every image can represent the keyword protect, safe and legacy. An example of selecting a Hermes image to represent the legacy or inheritance keyword, the high price also makes people who use it pay attention to protection and security. Hermes has a very expensive bag used as an investment destination. Protection is illustrated by the selection of very shallow waves and objects that are enjoying time that can only be done while in a safe condition. Large size is also often a representative of protection.

Therefore, the authors include images of whales among all animals that exist. The color selection on the moodboard is also chosen by the author as a real or present color. Dominant blue can be represented as a sea of coral reefs. Next, the writer searches and selects references based on similar to the colors and visual styles on the moodboard.

The reason the author chose the image above as a moodboard because representing the big idea, tone of voice and the concept of the campaign that has been determined. All visuals listed on the moodboard are the basic reference of the author to enter into the next design phase. Visual colors and styles are obtained from the moodboard that provides real visuals with development according to the needs of the campaign objectives. All visuals in the mood use digital imaging techniques that represent honest and direct or factual with real conditions. The blue color dominates as a real representative of the color of the sea and symbolizes safe and protect. The colors that appear on the moodboard are also the real colors of the actual conditions.

4.1 Color

The color determination in this campaign is determined based on the dominant color found in the mood that matches the keywords and tone of voice used by the author. The dominant color chosen by the author in this visual design is as follows:

#152A3D	#3E8692	#4BB4C9
#99CEF0	#E6BB6B	#D7A74E

Figure 2   The Main Campaign Color

According to Marioka and Stone (2006), blue can be defined as peace, justice, and security so that it matches the keywords protect and safe. The author decides to use blue because blue is also a real representative of the color of the sea. Furthermore, there is a green color which means growth, life, harmony also in the negative meaning symbolizes greed. The author chose the green color to symbolize the campaign that will continue to grow, the growth of coral reefs, life and human selfish symbols that damage the environment, especially coral reefs. The author also chose the color orange because it is associated with health and activity. Neutral colors like black and white also have important definitions to symbolize campaign messages. Black symbolizes death and white which describes fragility. The author also includes supporting colors, namely purple and yellow. Yellow symbolizes sunlight, optimistic, cautious and wise. The color purple symbolizes imagination, beauty and arrogance. All the meanings of the colors that have been determined by the author provide an overview and the great purpose of designing this campaign.

4.2 Typography

The author continues with the process of design in accordance with the predetermined tone of voice. In accordance with the tone of voice that is direct and honest, it can be developed into typographic characters that have the firmness of the word direct but have the emotional side that is obtained from the word honest. Based on this, the writer chooses sans serif typeface because it represents these words. The author chooses sans serif also because of the reason to keep having a serious impression because the main purpose is as a delivery of information but is not heavy so as not to seem stiff and forced. After the typeface selection process, the writer gets two choices for headline needs and other copywriting needs, namely Gobold Bold and Gotham Rounded.

Figure 3   Campaign Font

4.3 Copywriting

The next stage is the design of communication that will be used in the process of making this social campaign. In this stage the determination of the communication to be conveyed as part of the design strategy so that it can be right on target and in accordance with its original purpose. Copywriting writing is determined in English because the geographical target is the island of Bali where there are many foreign tourists, of course, by way of a clear but rather relaxed delivery in accordance with the keyword tone of voice that is honest and direct. The selection of English is also adjusted to the target of the campaign included in the SES A-B category which has foreign language skills, especially more plural English. Submitting clear information also with the reason that the target has a definition of meaning that does not have many interpretations so that it will not cause various views from different points of view.

Finally the author decided to make "Your Protection Must Protect" as the main headline in this campaign. The reason is that among all the headline choices, this word best reflects the direct and honest tone of voice. The headline selection is also easier to remember because it has a relatively similar vocabulary and a short word count.

4.4 Campaign Identity

The author looks for several alternative campaign names based on the main keywords. The names of the campaigns were developed in English according to the intended target. After the writer conducted a brainstorming process for name selection, it was finally determined that the name of the design of this campaign was protect the reef. The name Protect The Reef represents the keywords and messages that the author wants to highlight in the design of this campaign and also consists of 3 words so it's easy to remember. Then the writer also designed the logo as part of the campaign's identity.

Figure 4   Campaign Logo

This logo was chosen because it represents the overall campaign design strategy. The protective part shaped like a flower is a representation of the protection or protection of coral reefs that are indeed obtained from algae zooxanthellae. And in the middle of the logo is a form of an empty coral reef that can be defined as a symbol that determines what kind of condition the coral reef is in our hands. The visual logo above is a unity that cannot be broken down. The bluish green color of the combination of green and blue chosen as an identity symbolizes that the campaign movement will continue to grow, live and can provide a sense of security to coral reefs as well as to the campaign targets. In addition to bluish green, this logo can also be applied with white which indicates the condition of bleaching on the coral reef. At the bottom of the logo also made a logotype bearing the name of the campaign "Protect the Reef".

4.5 Visual System

In the visual design process, the authors use digital imaging techniques. According to Slovia (2017), professionals usually manipulate photos which is one effective way that can make an image or photo better. Is a combination of various aspects in Photoshop, including color grading. The advertising industry, promotion and creative aspects often use photo manipulation. This is to cover up the shortcomings of photography that are deemed not fulfilling certain desires or goals.

Figure 5   Digital Imaging Process
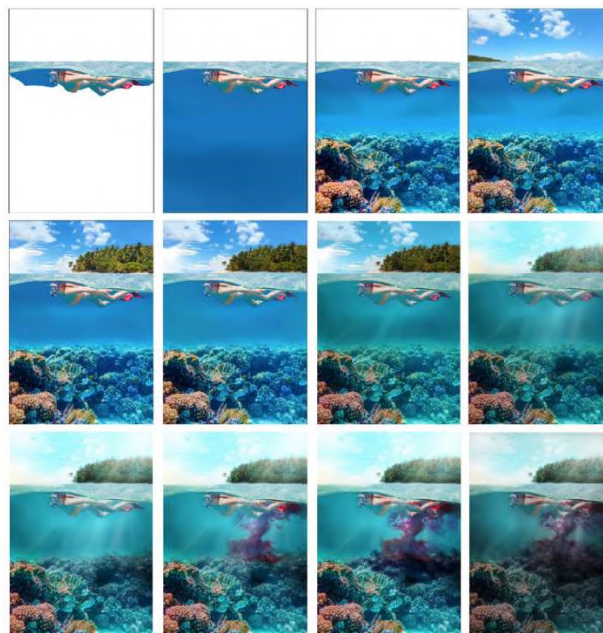
4.6 Implementation Design

Referring to the AISAS theory, this stage of media implementation is divided into several stages, namely attention, interest, search, action and share.

1. E-Poster
The design of this digital poster aims to attract attention because it is usually large and can be seen by many people depending on the location of the placement. This e-poster will be

placed in several important areas of Bali tourism such as the Ngurah Rai and Soekarno-Hatta airports, public transportation, pedestrian areas and tourist centers such as shopping centers. E-posters at Ngurah Rai Airport will be placed in areas in the arrival terminal including baggage claim areas, Ngurah Rai Airport exits, waiting points in the pickup area and airport waiting rooms. For posters placed at Soekarno-Hatta Airport specifically for the departure lane to Denpasar, Bali and the location is in the airport lounge.

In the attention phase, the writer also uses online transportation and airport as a media for poster placement. This media was chosen because it is one of the places commonly used by tourists and the public. For online transportation, the writer chooses online motorcycle taxi and online taxi as a means of advertising, while for airport vehicles, the writer chooses the bus that is responsible for picking up passengers from the plane to the terminal entrance.

The message to be conveyed is about the conditions of the real comparison between the scenery we see during the holidays and the poor condition of coral reefs that often escape the attention of tourists.

Figure 5   Protect The Reef E-Poster

2. Wobbler
This media has the function of attracting attention that will be placed on the shelves in the general mini markets in Bali such as Circle-K, Seven-eleven, Indomaret and Alfamart. Then dispensaries like Century, Guardian and Watson where the wobbler is placed on the sale of sunscreen. Copywriting on the wobbler is adjusted to its small size, "Have you choose the right sunscreen?" includes QR Qode which contains information about brands containing oxybenzone and octinoxate so that campaign targets can avoid sunscreen that is not yet safe for coral reefs.

Figure 6   Protect The Reef Wobbler

3. Instagram

The design of the Instagram post is a source of information and introduction to campaign content more to the audience. The reason for the Instagram voters is because it is one of the most popular social media targets of this campaign. The author made 9 Instagram post designs consisting of knowledge, and fun holiday tips.

Figure 7   Protect The Reef Instagram Post

4. Website

All complete and detailed information is in this media. The website consists of two pages, a landing page that contains the entire contents of the website briefly and a page for purchasing merchandise. Content on the website for complete information, vision, campaign mission, benefits of coral reefs, negative impacts of using oxybenzone-based and octinoxate-based sunscreens for coral reefs and direction for campaign targets to move on to action stages such as purchasing on page stores and donations.
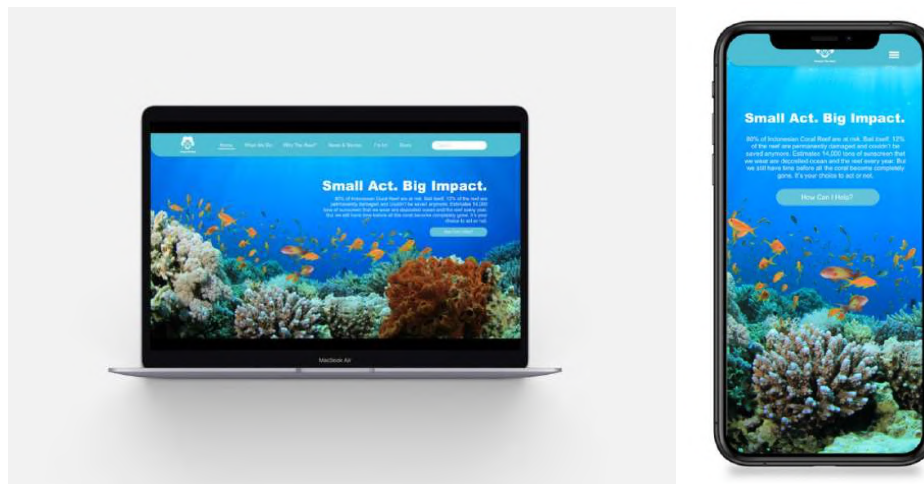
Figure 8   Protect the Reef Website

The author also designed a website with a mobile size because 98.2% of internet access is done by millennials using a smartphone that is adjusted to the desktop display.

5. Event

The design of holiday media for millennials is a public event which is a vacation facility that likes new and useful things. This media selection is based on psychographic target campaigns who like new things and prefer things that raise certain issues as a basis. The majority of millennials also travel as an investment of fun activities. This event also has a great opportunity to reach more audiences in a fun and educative way. Some of the needs of the event designed were backdrops, hanging banners and e-posters for promotional needs. The poster is made digital so that the impact is greater because it can enter various digital platforms such as campaign websites.

Figure 9   Protect The Reef Event Media

6. Merchandise

Merchandise was chosen by the author because it is one of the good awareness campaigns. Merchandise was chosen based on the psychographic target of the campaign, demographics and geography held in the coastal area. Some items chosen by the author as merchandise are T-shirts, tank tops, towels, flip-flops, drinking bottles, wristband, tote bags and hats.

Figure 9 Protect The Reef Merchandise

5. Conclusion

Many people or campaign targets are still unaware, so sunscreen continues to be a silent killer for coral reefs. This is due to the lack of information about the coral reef itself and its relationship to sunscreen which is common to use when on vacation or beach activities. Because of this, a campaign design is needed to increase the awareness of the campaign targets in order to produce a change that can reduce the impact of damage to coral reefs due to sunscreen.

The campaign was held for 3 months, namely June to August because it is an annual long vacation time in Indonesia and summer vacation abroad so the number of tourists, especially beaches, must have increased rapidly compared to other months. In producing an effective and appropriate visual design for the entire campaign the writer uses the AISAS design method to achieve the goal flow.

In the function of attracting the attention of the target campaign the author uses e-posters, wobblers and ambient media that are placed in strategic locations on the island of Bali. When the public has been introduced to the problem and want more information but not too detailed, the author uses Instagram because it is one of the most widely used social media by the target campaign. Then detailed and complete information about the campaign will be provided on the website with desktop and mobile sizes to be easily accessed anywhere. Next to the action stage, supported by the Bali Summer Camp event, which is a vacation that fits the target campaign that is packed with informative and fun. Finally, the writer chooses Instagram merchandise and filters for the share stage to build awareness campaigns that follow the character of the target campaign, next involvement of stakeholders and decision-makers and the participation of the public are necessary for

arriving at suitable decisions as it leads to better awareness of risks (Selamet, 2019) of sunscreen.

All visual designs are carried out using digital imaging techniques so that the target of the campaign can feel connected to the visuals displayed because they are in accordance with actual conditions. The target of the campaign can also be directly aware of the current condition of coral reefs so that awareness can increase and reduce the harmful effects of sunscreens that contain harmful substances oxybenzone and octinoxate for coral reefs.

6. References

Creswell, J.W. (2009). Research Design Qualitative, Quantitative and Mixed Method Approaches. United States: SAGE Publications, Inc.

Slavio, J. (2017). Photoshop for Photographers: Training for Photographers to Master Digital Photography and Photo Editing.

Dietrich, G., & Livingston, G. (2012). Marketing in the Round: How to Develop an Intergrated Marketing in the Digital Era. Indiana: Que Publishing.

Landa, R. (2011). Graphic design solutions, fourth edition. Boston: Wadsworth.

Moriarty, S., Mitchell, N., & Wells, W. (2012). Advertising & IMC: principles & practice.. New Jersey: Pearson Education Inc.

Morioka, A., & Stone, T. (2006). Color Design Workbook. Beverly ,Massachusets: Rockport Publisers.

Sugiyama, K., & Andree, T. (2011). The Dentsu Way. New York: McGraw-Hill.

Suharsono, A.B., Hafizt, M., Prayudha, B., Giyanto, & Hadi, T.A. (2018). Status Terumbu Karang Indonesia 2018. Jakarta Utara: Puslit Oseanografi – LIPI.

Venus, A. (2018). Manajemen kampanye: Panduan teoritis dan praktis dalam mengefektifkan kampanye komunikasi, edisi revisi. Bandung: Simbiosa Rekatama Media.

Yuswohady, & Gani, K.E. (2015). 8 Wajah Kelas Menengah. Jakarta: Gramedia Pustaka Utama.

Arora, N. (2018). ATL, BTL and TTL Marketing in Education Industry. International Journal of Research and Innovation in Social Science, 2(1), 13-15. Doi: http://www.ijriss.org/DigitalLibrary/Vol.2&Issue1/13-15.pdf

Metcalfe, C.D. (2015). Journal Archives of Environmental Contamination and Toxicology. 69(3).

Sjafrie, N.D.M. (2014). Coral Bleaching: Mekanisme Pertahanan Karang Terhadap Stress. Oseanografi   LIPI,   39(4),   1-13.   Doi: http://oseanografi.lipi.go.id/dokumen/os_xxxix_4_2014-1.pdf

Anna, L.K. (2018). Mengapa Tabir Surya Berbahaya Bagi Terumbu Karang dan Ikan. Diperoleh dari https://lifestyle.kompas.com/read/2018/06/29/130000 820/mengapa-tabir-surya-berbahaya-untuk-terumbu-karang-dan   ikan?page=all

Deny, S. (2015). Menteri Susi: 70% Terumbu Karang Indonesia Rusak. Diunduh dari https://www.liputan6.com/bisnis/read/2287433/menteri-susi-70 terumbu-karang-indonesia rusak

Dirhamsyah, M.A. (2018). LIPI: Status Terkini Terumbu Karang Indonesia 2018. Diunduh dari http://lipi.go.id/siaranpress/lipi:-status--terkini-terumbu karang-indonesia-2018-/21410

Lidia. (2016). Gerakan Mahasiswa dan Perubahan Sosial. Diunduh dari http://www.jurnalasia.com/opini/gerakan-mahasiswa-dan-perubahan- sosial/

Muliarta, N.I. (2016). Coral Bleaching Meluas Rusak Terumbu Karang di Bali.

Diunduh dari http://www. news.beritabali.com/read/2016/03/23/2016/

03230002/coral-bleaching-meluas-rusak-terumbu-karang-di-bali

Setiawan, R. (2016). Mahasiswa dan Pembangunan Nasional. Diunduh dari http://www.jurnalasia.com/opini/mahasiswa-dan-pembangunan-nasional/

Selamet, J. (2019). Identifying Criteria for Designing Risk Communication System in Palu, Sulawesi, Indonesia. *Journal of Disaster Research*, *14*(9), 1346–1352.

Shecilia, T. (2018). Indonesia Surga Terumbu Karang Dunia. Diunduh dari https://www.goodnewsfromindonesia.id/2018/05/10/indonesia-surga terumbu-karang

Pezzullo, P. C., & Cox, R. (2017). Environmental Communication and the Public Sphere. SAGE Publications.

Prof.Dr.Suharsono, APU: Ahli Terumbu Karang Indonesia Yang Tidak Pernah Berhenti Berkarya. (n.d). Diperoleh pada 26 April, 2010 dari

http://lipi.go.id/berita/prof.-dr.-suharsono-apu:-ahli-terumbu-karang   indonesia-yang-tidak-pernah-berhenti-berkarya/3150

About the Authors:

Joscelind Lukas is a 4-year undergraduate student in the Department of Visual Communication Design, Digital Imaging Artist, at Universitas Multimedia Nusantara, Indonesia.

Darfi Rizkavirwan is a lecturer in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

International Conference of Innovation in Media & Visual Design

Designing an Informative Pop-Up Book about Microplastic Particles for 8-13 Years Old Children

Angelina Salvita[a*], Rani Aryani Widjono[b]

[a-b] Department of Visual Communication Design, Multimedia Nusantara University, Indonesia
*Corresponding author e-mail: angelina.eliseus@student.umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1127

Abstract: It is undeniable that the use of plastic, especially disposable plastic has become a part of an everyday life of a human. In Indonesia, the waste management is still at its minimum point and unbalanced to the amount of plastic consumptions. Government stated that schools around Indonesia still need education regarding waste. The importance of providing education about plastic and waste from an early age can help educate the children in order to raise their awareness about the use of plastic wisely. Based on the research that has been done, the target readers ranging from 8-13 years old doesn't know yet the harmful effect of what plastic can cause. Pop-up book is the chosen media in order to facilitate the distribution of information, the book is packed with interactive pages, making it easier for children to remember what they see when they are directly involved on a media.

Keywords: plastic; microplastic; waste; pop-up; illustration book; children

1. Introduction

The word plastic is not an unfamiliar term anymore in our daily life, human uses significant amount of plastic every day. In her article, Yolanda stated that the Maritime Coordination Ministry is planning to add waste education primarily about plastic to the curriculum starting from kindergarten to high school because of the lack of knowledge on plastic waste (Yolanda, 2018). Reported by nationalgeographic.co.id, Syarifah stated that scientists have found that one single-used plastic mineral bottle contains 2-44 micro plastic particles per litre. This will cause poisoning in our system, damaging the body's tissue system or even on worse scenarios, deaths. Microplastic was not only found in the sea, but were also found in the air we breathe, and in land animals such as chicken. On one serving of processed chicken, scientists found about 10 microplastic particles inside the chicken's meat (Syarifah, 2018).

Widyaningrum revealed that even human fesses and intestines were already contaminated with micro plastics. This was sampled by an Austrian scientist who collected human fesses samples across the world from countries such as Japan, Italy, Poland, Netherlands, UK, Russia, Finland and Austria (Widyaningrum, 2018). Problems that arise from plastics have concerned from previous research (Selamet & Simpson, 2019) that designed a mobile application to address plastic pollution.

However, up until now, there are no books about microplastic for students available to read. Therefore, the author purpose a media information in the forms of pop-up book as a solution to educate the reader especially students within the range of 8-13 years old children to gain awareness and insights regarding the use of plastic, especially single-used plastic so the readers could understand more about plastic's cycle and life-span through an interesting way of learning.

2. Literature Reviews

2.1 Pop-Up & Paper Engineering

According to Ives, paper engineering is a process of cutting and creating shapes with a paper or with a card. With paper engineering, various pop-up, moving cards, elegant sophisticated 3-D sculptures or a fully working machines can be made using only paper for the mechanisms (Ives, 2009, p.7).

In order create a basic pop-up mechanism, every pop-up engineer must know several basic folds according to Finch (2013), here are the folds:

1. V-Folds
   V-folds are mainly used as the key pop-up fold. It is very effective creating a dynamic pop-up and very easy to use, it consists of a one folded piece of cards that is being glued or slotted into the page across the centre fold or gutter in the main spread. There are two angles to be considered: the angle that the pop-up is attached to the spread and the angle along the base of the pop-up itself.
2. Parallel Folds
   Parallel folds got its name because of the direction of the folds used to create the pop-up. The folds are all parallel to each other to the main fold down the centre of the spread. Parallel folds are great to create layers of support in a more complex pop-up mechanism.
3. Pull-Tabs; a pull tab is a paper tab with a sleeve that can be pulled.
4. Pivots
   Pivots consists of three techniques combined all together: a pivot, an arm and a pull-tab. When a pivot is assembled it can create a more dynamic movement to the spread.
5. Wheels

Wheels are the terms of the paper technique that can be turned, has a round shape like a wheel and it is form based with a pivot underneath.

6. Dissolving Windows

    Dissolving windows can create a seamless changing animation looks by simply pulling the tab of the windows, it is best used in using changes in a card.

2.2 How Pop-Up Boost Children Reading Skills

In a journal article by Lestari, it is mentioned that learning by storytelling especially with pop-up involves in a process which the children can be actively programmed on re-telling the stories of what they have seen in the book. Through pop-up, children can have vocabulary growth in their learning process which can affects to their learning vocabulary as well as the ability to analyse words or sentences that will increase the child's cognitive development (Lestari Ika, 2016).

According to a recent article by Minsker, it listed various reasons why pop-up book is great for younger children to read (Minsker, n.d.):

1. Interactive;

    Pop-up book has the ability to turn ordinary illustration into 3-D illustration. Sileo (as cited in Minsker, n.d.) who works both as a children psychologist and author stated that pop-up book is an excellent way to add some incentive and rewards towards reading, because children tend to get bored so quickly. By using pop-up book as an approach, its interactive aspects gave the ability for the children to feel like they're inside the story which makes it all more engaging than ordinary illustration book.

2. Help Build Vocabulary;

    Reading a pop-up book will gives kids a whole new level experience of reading and will make them want to read the book repeatedly. Repeating and rereading is a very important part of memorizing and strengthen children vocabulary skills.

3. Teach the Value of Visualization;

    Pop-up books are important for kids in order to train their imagination to give them insights of what is happening in the story and thus resulting in giving them a richer reading experience.

2.3. Plastic & Microplastic Particles

As stated in the book Crawford and Quinn stated that plastic is a composed of large chain like molecules, that is called macromolecules. The macromolecules are composed by many smaller molecules connected together in a sequence and it is known by the terms "polymer." Polymer itself comes from an Ancient Greek Word for *poly* which means many and *meres* which means parts. The individual unit of this polymer is called a monomer. Monomers are tiny molecules that have an ability to bond together to form long chains. The process of connecting monomer together is called polymerization. All plastics are polymers.

Microplastic is the smaller form of microplastic, it is found on practical every beach on the world and have been detected on every open ocean surfaces, shorelines and sediments of freshwater lakes, mixed with marine sediments and are even incorporated in the polar ice caps. Microplastic is generally any kind of plastic that is smaller than 5 mm to 1 μm in size along its longest dimension. Any piece of plastic that is smaller than 1 μm is called nano plastic. Microplastic comes in various sizes, colours, shapes and appearance. Scientists often have a hard time identifying secondary microplastic since they are more random looking in shape. However, scientists could categorize the microplastic based on the colour since they tend to change colour when they are contaminated with chemical pollutants (Crawford & Quinn, 2014).

3. Design Methods

The methods used in the project was "The Big 6" theories based on O'Grady's book. The Big 6 is an information literacy model or information problem-solving strategy that was originally developed by Dr. Mike Eisenberg and his co-worker Bob Berkowitz in 1990. The methods provide the user learning process where they need to find, understand and apply new information (O'Grady, 2017).

Table 1   The Big 6 Theories

Step 1	Task Definition
Step 2	Information Seeking Strategies
Step 3	Location + Access
Step 4	Use of Information
Step 5	Synthesis
Step 6	Evaluation

- Task Definition
  The first step of the methods is the task definition. This method requires the author to define the information problem in order to identify what information that the target readers of the project may be needed. This involves in finding the urgency and relevancies according to the topic, determining the project's objective, scoping the problem demographically, geographically and psychographically.
- Information Seeking Strategies
  After determining the first step of the big 6 method, the second step of the methods is the information seeking strategies. This step is necessary to define and selects the possible sources and targets for the project, thus selecting the best sources to plan the design strategies. The information seeking strategies was done by seeking various information through literature studies, existing studies, conducting interview with experts, focus group discussion and observation. This step is inseparable with the third step of the method, which is the location + access.

- Location + Access
  The third step like mentioned before is inseparable with the second step. On this step the author needs to locate the sources needed for the project and find as many information possible with the source. For example, on existing studies the author conducted two interviews involving expertise in their work scope. The first interview was done with Mr. Reza Cordova a lead researcher in marine pollution, specifically marine waste, microplastic and heavy metals to gain insights about microplastic. While the second interview was done with Mr. Joko Wibowo as an editor who works at Elex Media Komputindo, one of the large book publishing company in Indonesia.
- Use of Information
  The fourth step of the method is the use of information, on this step all the information collected through various data collecting methods are being selected to choose only the relevant information for the final output. This step covers the selection of the graphic design aspects and elements of the books such as the colours, typography, illustration as well as the pop-up mechanism that is going to be implemented in the book.
- Synthesis
  The fifth step is the synthesis. In this step the author must organize multiple sources and present the information from the data that is collected and implemented throughout the big 6 theories methods. However, synthesis steps will further be discussed in detail on the design process.
- Evaluation
  After all steps of the methods are done, the last step which is the evaluation step is necessary to test the output effectiveness and efficiency, in this case the final pop-up book. It is important to test the durability of the book and making sure all the mechanism and sizes of the pop-up part are measured well and can function properly as a pop-up thoroughly. A successful pop-up book can be determined by the mechanism when a certain spread is open. How well can the mechanism stand on top of the paper.

4. Design Process

4.1 Synthesis

After collecting all the data needed through interviews, focus group discussion, literature studies, reference studies as well as existing studies, the writer then proceed to the next method of the design which is called synthesis. At this step the writer gathers all keywords related to the project and made a mind map. The mind mapping process help the author to determine and specify the keywords and big idea of the project as a future guideline. See Figure 1 below for the mind mapping process.
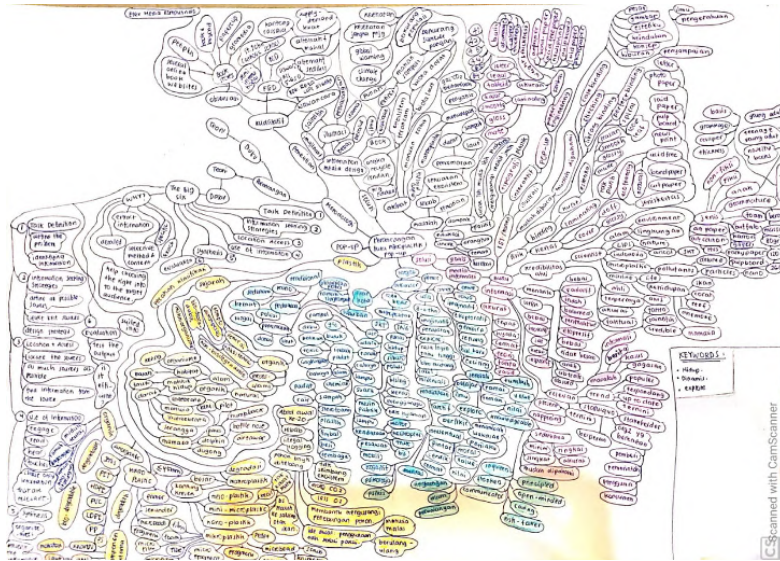
Figure 1 Mind mapping process

The keywords that the author found throughout mind mapping process are journey, explore and dangerous. After that with the help of advisor, the author managed to get the big idea for the pop-up book project which is "a plastic journey that cause potential danger that is needed to be explore more." After all keywords and big idea for the project gathered, then the author moved on to proceed in designing the pop-up book by determining:

1. Book Specification

Figure 2 Dwi & Adhisti: Realita Mengerikan tentang Sampah (Terrifying Reality about Waste) Pop-Up Book Specification

The final book size of the pop-up book is 21 cm x 26 cm the book was determined by careful consideration based on the data collected by doing interview with Joko Wibowo an editor from Elex Media Komputindo, he mentioned that children book mainly ranges

from 21 cm x 21 cm with a special binding technique so each of the spread can be opened at is maximum state in order for the pop-up mechanism to work properly.

The book is designed with a portrait orientation using bluish white 250-gram type of paper. The author chose this paper because of its firm and rigid paper composition making it the perfect paper to support the mechanism used in the book. Bluish white paper also has a matte texture reducing light reflection on the paper thus making the paper comfortable to read for the children.
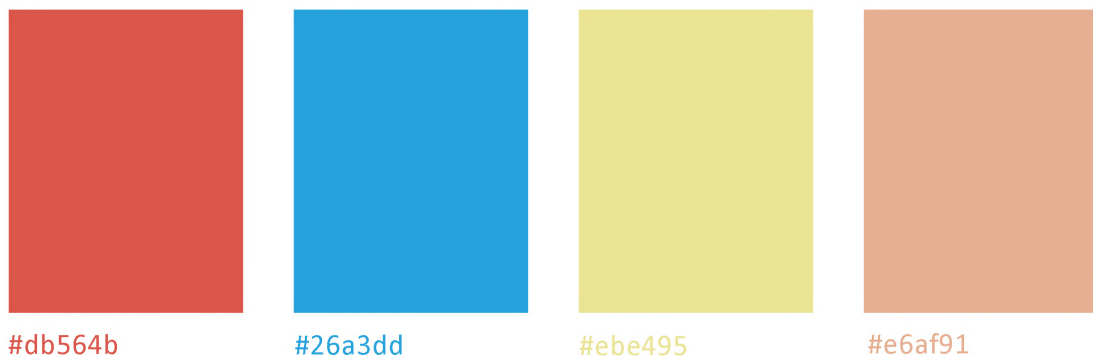
2. Colour

| #db564b | #26a3dd | #ebe495 | #e6af91 |

Figure 3 The Main Colours used in the Pop-up Book

In determining the colour that is going to be used in the book the author uses keywords as a guideline. The colours chosen in the book is a representative form of the keywords obtained from the mind mapping process. In her book, Dameria stated that dangerous can be represented by the colour red. The colour red also represents bravery, aggressive, and explosions of emotions. In the pop-up book the author uses the colour red to represents dangerous plastic illustrations (Dameria, 2007, p.44).

Based on Dameria's book, she also stated that the colour blue can also means educative as a positive meaning or toxic as a negative meaning. Furthermore, for the colour yellow she stated in his book that the colour yellow can be used and describe a cautious feeling (Dameria, 2007, p. 30).

3. Typography

In determining the typography for the pop-up book, the author chooses the typeface with sans-serif type with a touch of handwriting looks for the body text throughout the entire text in the book and a slightly "spooky" theme to the headlines of the text. The typeface selection is chosen based on the keywords and big idea that has been determined before. The typeface that the author has chosen looked like a child handwriting that has a fluent characteristic to it but also firm looking. Salisbury in his book stated that the selection of typography that is going to be used in the text must

also pay attention to the arrangement of letters so that the target audience can
easily read the content of the book (Salisbury, 2004).

4.   Grid & Layout

Modular grid is the chosen grid for the entire artwork, full illustrations are applied to
the spreads. On every spread 1,5 cm length is used on the left, right, top and bottom
margin with 0,2 gutter value, making the centre margin 3 cm in length. The size page
of the paper itself was made based on A3 paper which has the dimension of 29,7 cm
in height and 42 in length, but the height is being cut to 26 cm in height in order to
match the final book height.

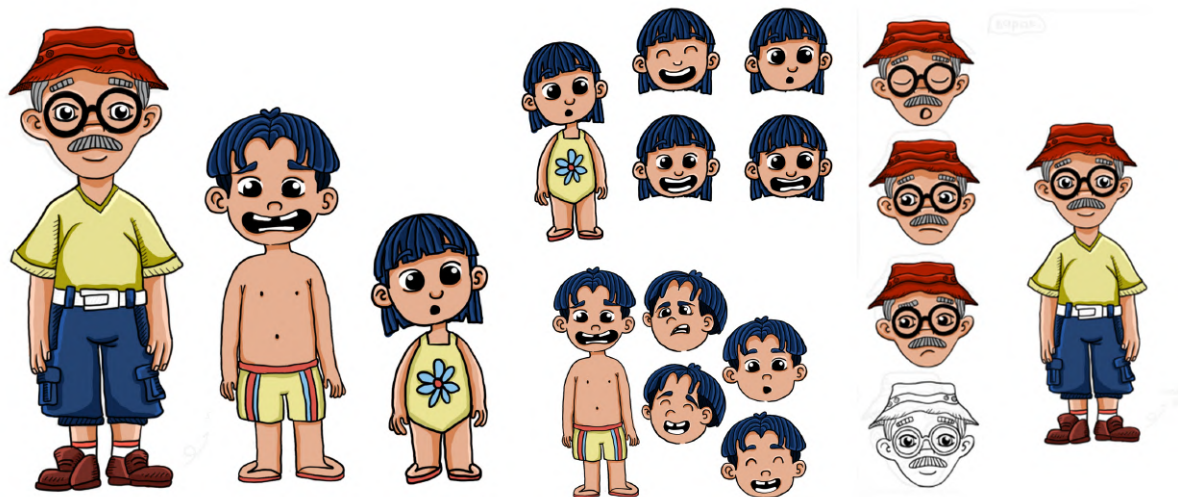5.   Character & Illustration Style

Figure 4 Character in the pop-up book (from left to right): Bapak, Dwi, and Adhisti

The book has three main characters which help in the distribution of information to the
target readers as seen in Figure 4. The character started out from determining their
persona by making 3D character to determine their physiology, sociology and
psychological aspects. After making each of the character's persona, the next step was
making rough sketch in paper and outlined by drawing pen. After that the character was
further discussed with one of the author's specialists advisor and then continued by
colouring and finalizing the character on a digital platform.

After finishing the sketch and the prototype of the spreads, the author scans it to
proceed in colouring using digital software which is Adobe Photoshop. Keywords
from brainstorming process is applied in determining the illustrations style. The use
of bold lines with shading and blocking can deliver the "dangerous" message that is
implied in the book. Blocking technique on the colorization process is used to
emphasize the shadow of the objects in the illustration, it also acts as a transition
from dark to bright. With crosshatching and blocking illustration style, the keywords

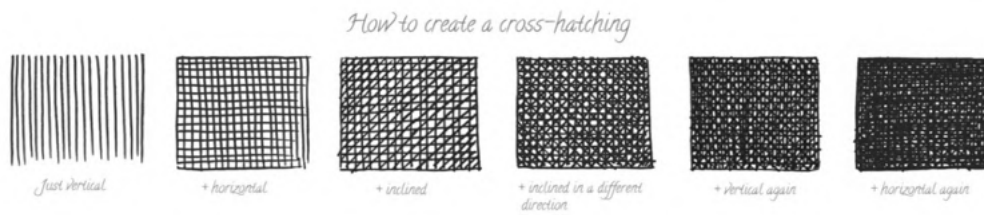"dangerous" can be relevant to the message that is wanting to be delivered to the target audience.

Figure [] Cross Hatching Illustration Style used in the book. Retrieved from https://eugeniahauss.com/2017/05/11/the-basics-of-ink-techniques-hatching-and-cross-hatching/

6.   Book Binding Technique

Figure 5 Double Fan Adhesive Binding used in the Pop-Up Book

For the book binding technique, the author decided to use double fan adhesive binding for the book. Double-fan adhesive binding has the best balance of durability and openability, it is mainly used for spreads consisting of single sheets. Double fan binding is used by clamping the entire book together (Cani, 2003). Double fan adhesive binding is suitable for the pop-up mechanism because it gives maximum impact in order for the paper to open and for the mechanism to work fully, this giving it a more pleasant reading for the target readers. Double-fan adhesive binding also proven to have a long-lasting binding because of its high durability.

4.2 Promotional Media Components Identification
After designing the pop-up book, the author designed promotional media components identification to help with the book's promotion in accordance with rules set by the author. The media then is divided into print ads, social media, gimmick and merchandise.
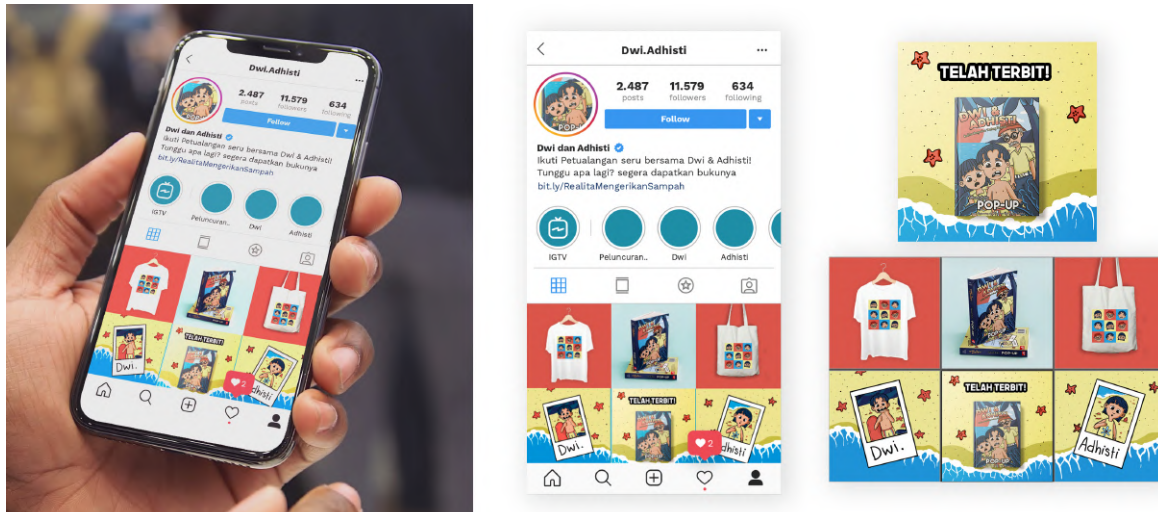
Figure 6 Dwi & Adhisti Pop-Up Book Instagram Promotional Media

To design the promotional media components identification, it is important to use visual hints from the pop-up book, the same colour pallet is also used in designing various promotional media components identification such as Instagram as seen on Figure []. These Instagram posts are planned to be posted shortly after the launching of the book. Besides Instagram, there are x-banner and web banner to help promote the pop-up book. Both x-banner and web banner are going to be placed in various bookstores and websites.

Figure 7 Dwi & Adhisti Pop-Up Book Web Banner Promotional Media

For the secondary identification, gimmick and merchandise are chosen. The merchandise will be tote bag, t-shirts, foldable lunch box and a hard case pencil case, while the gimmick is an aluminium water bottle. Lunch boxes are chosen as the merchandise because they are easy to carry, lightweight and useful for lunch at school during recess time or any kind of school or outdoor activities. Hard case pencil cases are useful to store their school supplies. Had case pencil cases are stronger and more durable compare to the average pencil case. Tote bag are chosen because they are useful in many ways it can also be a substitute of plastic bag when the child goes shopping or in need to carry thing, because it has many spaces to put inside yet light-weighted and strong. The blue tumbler on figure [8] is chosen for the gimmick. The author uses the outlined face of the character inside the pop-up book which is Dwi & Adhisti as the design.

Figure 8 X-Banner, Gimmick and Merchandise

5. Conclusion

This information media book was designed to educate the readers from an early stage about the danger of plastic and microplastic through a pop-up book with the help from the main characters inside the book, which is Bapak, Dwi and Adhisti. The pop-up book itself is designed to educate the readers in understanding the information that wants to be delivered because children need to know from an early age that microplastic can have serious effects on human health as it may leave dangerous chemical and metal substances inside the human body due to its additive chain reaction.

The pop-up techniques that are used for the pop-up book is suitable for the target readers that ranges from 8-13 years old because it can give the readers a whole new experience in gathering information since pop-up book can turn 2D into 3D image, giving the target readers a richer experience in reading. Moreover, the readers can explore interactive information in flaps inside the book. As pop-up books are proven to improves children

learning ability, teaches the value of visualization and are able to extend children vocabulary resulting in making pop-up book an excellent way for the children learning process obtaining knowledge in plastic and microplastic along with the help and guidance from their teacher, parents or guardian in obtaining information from the book.

Through this pop-up book, the author hoped that children from an early age can know the danger and be aware of microplastic resulting in developing a habit in terms of using plastic more wisely and bravely say "no" to single-used plastic. As for the future research plan of the distribution of the paper itself, together of the Ministry of Education the pop-up book will be distributed through schools and various communities focusing on zero-waste lifestyle to support the content of the book itself.

6. References

Cani, Alice. (2003). *Binding & Care for Printed Music*. Lanham, Maryland: The Scarecrow Press, Inc.

Crawford, C., & Quinn, B. (2016). *Microplastics Pollutants*. Cambridge, UK: Elsevier Science.

    edukasi-sampah-plastik-akan-masuk-kurikulum

Finch, Keith. (2013*). Paper Engineering for Designers Pop-Up Skills* and

Ika Lestari, R. N. F. (2016). Buku Pop-Up untuk Pembelajaran Bercerita Siswa Sekolah Dasar. Perspektif Ilmu Pendidikan, 30(1), 21-26. Retreived from file https://doi.org/10.1009/PIP.301.3

Indianapolis: Wiley Publishing.

Ives, R. (2009). Paper Engineering & Pop Ups for Dummies. Canada,

June, 2020 from https://www.scholastic.com/parents/family-life/parent- child/how-pop-books-improve-reading-skills.html

Minsker, M. (n.d.). How Pop-up Books Can Boost Reading Skills. Retrieved 25th

O'Grady. (2017). A Designer's Research Manual. Beverly, MA: Rockport Publishers.

Selamet, J., & Simpson, T. (2019). A Design for Recycling: Developing a Mobile Application to Improve Recycling Behavior. *International Journal of Visual Design, 13*(4), 45-61.

Syarifah, M. (2018, July 31). Secara Tidak Sadar, Manusia Mengonsumsi Mikroplastik Setiap Hari - Semua Halaman. Retrieved from https://nationalgeographic.grid.id/read/13908622/secara-tidak-sadar- manusia-mengonsumsi-mikroplastik-setiap-hari?page=all

Techniques. UK: Thames & Hudson Ltd.

Widyaningrum, Gita L. (2018, Oktober 23). Mikroplastik Ditemukan Pada Kotoran Manusia, Kita Benar-Benar Mengonsumsinya. Diperoleh dari website https://nationalgeographic.grid.id/read/13961518/mikroplastik- ditemukan-pada-kotoran-manusia-kita-benar-benar- mengonsumsinya?page=all

Yolanda, F. (2018, November 30). Edukasi Sampah Plastik akan Masuk Kurikulum. Diperoleh dari website 209 https://www.republika.co.id/berita/nasional/umum/18/11/30/pizs6x370-

About the Authors:

Angelina Salvita Chrysia Eliseus is a 4-year undergraduate student majoring Visual Brand Design under the Department of Visual Communication Design at Multimedia Nusantara University, Indonesia.

Rani Aryani Widjono is a lecturer and advisor for this project under the Department of Visual Communication Design at Multimedia Nusantara University, Indonesia.

Brand Rejuvenation Design of Kecap Banteng

Vincentia Audrey [a], Erwin Alfian[b,*]

[a-c] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: erwin@umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1129

Abstract: Nowadays in this growing era, every company try to create innovative and creative things to attract millennials generation. Today situation makes business people try to reach millennials generation as their target market. Kecap Banteng is one of local product located in Cirebon, Indonesia. They had long history and still survive, even the rapid competition makes them almost collapsed in a few past years. Brand rejuvenation is one of branding activity to refresh old brand which is sick and almost die. The first strategy of brand rejuvenation is to refresh the brand identity to increase omset and income also refresh the brand equity of Kecap Banteng. Writer lift up this phenomenon and choose this topic with titled "Brand Rejuvenation Design of Kecap Banteng". Writer hopes this brand rejuvenation could lift brand equity of Kecap Banteng in this era, compete with competitor and be the top-of-mind brand in Cirebon.

Keywords: brand rejuvenation, millennials generation, Kecap Banteng, local product

1. Introduction

Kecap Banteng is one of local product located in Cirebon since 1958. They are using organic ingredients and traditional cooking process. They maintain their taste, quality and authentic with traditional way. In the past three years, Kecap Banteng incomes was dramatically decreasing. According to Babu (2006) the cycle of brand should be in a long term, they should be maintained for defend their brand from competitor. Refresh or renew the visual identity is one of brand rejuvenation strategy to increase the brand image to compete with the competitor (page. 9). This data is supported by questioner with result: 88,1% respondent in age range of 21st -55th didn't know Kecap Banteng existence and 98% respondent said that Kecap Banteng logo is hard to recall. But, based on focus groups discussion, respondent said that logo is one of important element to bring the originality of brand. Accoding to Wheeler (2018) brand identity of a brand should be a differentiates of competitor. According to Babu (2006) brand rejuvenation starting with refresh the visual identity, then it affect to increasing brand image and help the sales of company (page. 10). This condition suit to Kecap Banteng problems. Therefore, Kecap Banteng is struggling for competing nowadays. Brand rejuvenation by refresh the visual identity is needed as a solution for Kecap Banteng. This solution should be increasing the brand equity of Kecap Banteng..

2. Literature Reviews

Literary sources and materials based on books, journal, article, etc. Here some literacy to support fact and data of my journal:

- Brand rejuvenation is a major overhaul of a brand, starting with its positioning and proceeding through creative regeneration of the brand identity (Babu, 2006)
- Brand rejuvenation could affect consumer purchase intentions and consumer loyalty.
- Brand Identity according to Wheeler (2018) is tangible and appeals to the senses. You can see it, touch it, hold it, hear it, watch it move. Brand identity fuels recognition, amplifies differentiation, and makes big ideas and meaning accessible.
- Kapferer (2012) also said that the value brand could be the identity of the brand itself.

3. Design Method

In collecting data, the methodology that used is qualitative. According to Hanington and Martin books titled Universal Methods of Design (2012), this method will be deeper to exploring data, because in it there is split into qualitative and quantitative. There are focus groups discussion, interview and observation in qualitative method and questioner in quantitative method.

3.1. Qualitative and Quantitative
First step to collect data is interview with the business owner to find out some data that will help for the next step. Observation had been done to analyse details of Kecap Banteng products. Focus groups discussion data used as measurement of consumer behaviour for Kecap Banteng target market. There also some analyse action to collect data, such as

analysing SWOT, STP, User Persona, etc. Quantitative method using questioner with random sampling by Slovin rules with 10% error percentage (Ryan, 2013). Questioner collected from 100 respondent who is local people in age range from 21st-55th years old.
• Interview: business owner (internal data)
• Observation: Kecap Banteng Factory (product knowledgment)
• Focus groups discussion: male and female in age range 45th -55th (consumer behaviour)
• Analyze SWOT: competitor
• Analyze STP: target market
• User Persona: target market

3.2 Design Method
Design method used by Wheeler (2018) books titled "designing brand identity fifth edition" consist of:
• Conducting research: collect internal data about Kecap Banteng with step insight, market research and competitive audit

Figure 1 original Kecap Banteng logo

   The Kecap Banteng logo is hard to recognize or to remember. According to respondents the logo of Banteng soy sauce must be changed to keep up with new era.
• Clarifying strategy: analyse data by creating brainstorming and mindmapping to find keywords (authentic, historic, family heritage, organic, good quality), then brand bried schematic to find big idea "Nostalgia Warisan Wong Cerbon" and the last to find brand rejuvenation strategy
• Designing identity: starting visualise with brainstorming and mindmapping to decide tone of voice (retro, modern and memorable), collect visual reference moodboard, choose colour and typography, designing visual identity, create supergraphic dan pattern and decided the tagline and layout.
• Creating touchpoints: apply the visual identity to communication media (corporate items, packaging, promotional items, gimmick and merchandise)
• Managing assets: designing brand guidelines to regulate the use of visual identity.

4. Strategic And Design Analyze

In doing the sketch, the author researches some of the behavior of bull animals so that the author takes the right visual direction. The author enters the sketching stage by taking several Banteng body structures as follows:
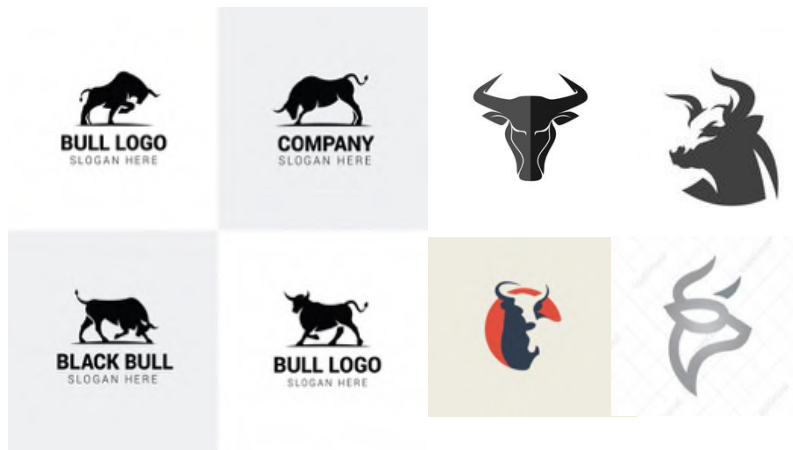
Figure 2 bull anatomy study

The author is also looking for several typefaces that match the initial concept and the tone of voice that I chose, namely retro, modern and memorable. The typeface that I chose has a firm impression but is still condense to give it a slightly modern and simple impression, then has a texture like it has been splashed by a brush. It wants to represent an old-style and traditional impression. After the authors conduct research with some of this information, the authors enter the digitization stage as follows:
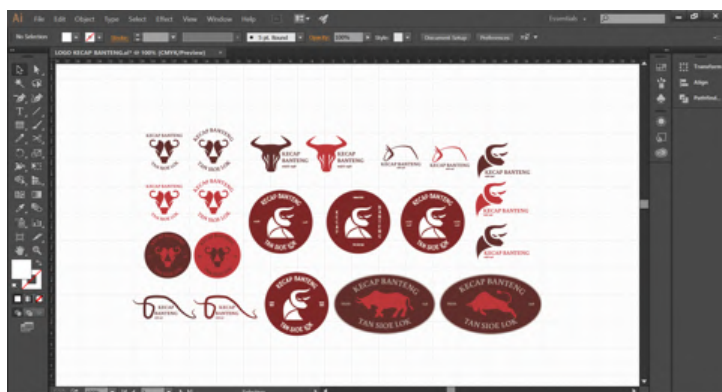
Figure 3 typographic study

the next step is to choose the structure of the upper body, namely the head to be used as the main symbol in the logo. Based on the author's research on the behavior or characteristics of bull animals, female bulls as leaders of other bull herds will be alert and always pay attention to their environment when they are in a crowd and do eating and drinking activities for their growth. From the results of the digitization, one image will be used as the new logo for Kecap Banteng

The next step is takes the structure of the upper part of the body, namely the head to serve as the main symbol in the logo. Based on the author's research on the behavior or

characteristics of bull animals, female bulls as leaders of other bull herds will be alert and always pay attention to their environment when they are in a crowd and do eating and drinking activities for their growth. Step one of designing identity is create visual identity by modular grid to reconstructed part of symbol anatomy to set the proportional shape. According to Krause, (2012) emblem mark is the right choice for logo which using symbol and typeface in retro style. Bull symbol is refer to its name. The philosophy of Kecap Banteng new visual identity is implied. The up-half body structure of bull have an important meaning as a leader or someone with high position. This representative Kecap Banteng as the best local product in Cirebon. The direction of bulls head is in the right side has meaning of giving trust to consume

Figure 4 Final refreshing Kecap Banteng Visual Identity

Figure 5 refreshing super graphic Kecap Banteng Visual Identity

Supergraphic is one of important visual elements to support the usage of visual identity in communication media. The structure of supergraphic used by some elements such as head

part of bulls, batik mega mendung and bunga kantil. Some unique parts in each elements is simplify and collaborate to create new shape.

5. References

Akbar, N., Zeb, A. & Ahmad, S. (2017). The impact of brand rejuvenation on consumer purchase intention: brand attitude as mediator. Global Regional Review, 2.(1),197-210. 10.31703/grr.2017(II-I).14

Babu, V. M. (2006). Issues in brand rejuvenation strategies. Citeseerx.com. Diunduh 21 Juli 2020, dari xvi http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.573.2818&rep= rep1&type=pdf.

Hanington, B. & Martin, B. (2012). Universal methods of design: 100 ways to research complex problems, develop innovative ideas, and design effective solutions. USA: Rockport Publisher.

Kapferer, J. N. (2012). The new strategic brand management advanced insights and strategic thinking. France: Les Editions d'Organization.

Keller, K. L. (2013). Strategic brand management: building, measuring, and managing brand equity, fourth edition. England: Pearson Education.

Krause, J. (2012). The logo brainstorm book: a comprehensive guide for exploring design directions. USA : How Books.

Landa, R. (2014). Graphic design solution 5th edition. USA: Clark Baxter.

Mootee, I. (2013). 60 minute brand strategist: The essential brand book for marketing professionals. New Jersey: John Wiley & Sons.

Ryan, T. (2013). Sample Size Determination and Power. New Jersey: John Wiley & Sons.

Wheeler, A. (2018). Designing brand identity: an essential guide for the entire branding team fifth edition. New Jersey: John Wiley & Sons.

About the Authors:

Vincentia Audrey is a 4-year undergraduate student in the Department of Visual Communication Design, Visual Branding Design track, at Universitas Multimedia Nusantara, Indonesia.

Erwin Alfian is a lecturer and final project coordinator in the Department of Visual Communication Design at Universitas Multimedia Nusantara, Indonesia.

International
Conference of
Innovation in Media
& Visual Design

The Relationship of Music-Sound, Technology and Internet

Clemens Felix Setiyawan[a,*], Dyah Murwaningrum[b]

[a-b] Department of Visual Communication Design, Universitas Multimedia Nusantara, Indonesia
*Corresponding author e-mail: Clemens.felix@umn.ac.id
DOI: https://doi.org/10.31937/imdes.v1i1.1130

Abstract: Nowadays, music creation, collaboration and publication are easier because of technology. Most young generations have sent music data, made, sold, bought music files on the internet. This changed music processes certainly resulted in different outcomes. Listening and creating music by new means, can change music itself. Technology has simplified tools, and the internet has simplified the distance. But new problems and questions have been found. How were the internet and technology influenced the quality of music, music creator, music appreciator and the form of music. The aims of this research to determine the relationship between music, technology and the internet, through behaviour of the young generation. This study was qualitative research that used observations and unstructured interviews. In subsequent observations, participant-observer was chosen as an advanced research method to better understand existing phenomena. The result of observations and interviews were interpreted, then presented descriptively. This research used theory by Don Ihde that technology has three characteristics (1) material (2) used (3)relationship of human and tools. The result of this research is internet influenced music quality and human appreciation. Technology changed the way humans create music.

Keywords: Music, Sound, Technology, Internet

1. Introduction

Human musical taste does not exist intrinsically. Taste is related to environment, reference and tools often used. So does sound or music. Human taste in sound changes with advances of technology, resulting in a combination between sound and Internet. What is considered outstanding or mediocre is always subject to human's judgement.

In the last 20 years, the Internet has finally gained acceptance as a non-physical tool used in numerous aspects of our lives. Euphoria of the Internet has turned into dependence. Subsequently humans adapt and slowly try to take control of the Internet to create new creations.

Technology, as the origin of the Internet, has been a part of human's musical process for thousands of years. Music or sound is not only produced by unconstrained vocal cord but also by technology. Technology has shaped regular and measured scales in Western music which become parts of our daily lives in entertainment, musical creativity, music industry, and music education. On the other hand, sound is less restrained by measurement, but it is still influenced by technology in standardization of sound both in art and industry.

Technology is generally defined as activities related to techniques in the form of methods, logic, and human attempt to solve problems in practice both with or without tools. We refer to the term technology as defined by Don Ihde:

> Doh Ihde highlighted the relationship between humans and technology equipped with instruments and the immersion of technology in culture. Culture was seen as multicultural while technological tools are seen as cultural and scientific tools. Technology as defined by Ihde had 3 characteristics. The first component was matter as a concrete component. The second characteristic was the practical aspect in terms of usage. Lastly, the relationship between technological tools and humans who create, use, and transform them. (Lim 2008)

Ihde pointed out that technology is not only related to science and technology but is immersed in culture. Subsequently Ihde zeroed in 3 characteristics of technology. First component is the concrete component, matters or forms resulting from technology. The second component is the practical component or aspect of usage, how technology is used. The last component is the relationship between humans and technology -- technological tools and humans who create, use and transform them. Don Ihde's statement is clear on the development of music/ sound. The statement will be the foundation to describe phenomena of sound design course.

On the contrary, the way young generations produce and appreciate music differs from that of two centuries ago. Interesting phenomenon emerged from classes or forums that produced sound/ music digitally, among them was the Sound Design course at Universitas Multimedia Nusantara, specifically in 2019 (before the pandemic) and 2020 (during the pandemic). Some students mixed analog and digital sound; some used entirely digital sound. Music, technology, and the Internet as human's creations evolve. Technology exists as an extension of humans' hands and logic, which gives birth to the Internet. Music is used to

express one's self via sound. Tools or instruments used in music and how musical instruments used cannot escape science, but music/ sound must be created by humans to preserve humanity spirit in culture.

During the pandemic, the Internet has become the only tool to bring together people from various places to meet, exchange knowledge, and to collaborate. Musicians respond to one another with their musical compositions and give virtual concerts with or without sponsors. So did UMN Sound Design students this semester. The Internet gave them the possibility to make music together, responded sound in turn, sent audio data through networks and created music online by using Zoom and Teamviewer applications. Many students collaborated without using any musical instrument, merely using virtual instruments instead. Some applications enabled us to access screens without touching laptops; this is where collaboration starts.

Changed processes certainly result in different outcomes. Listening and creating music by new means, can change music itself. Subsequently, music appreciators will rate music with new standards. Suka Hardjana evaluated that art or music is not about outstanding or mediocre but about what is considered outstanding today and what was considered outstanding in the past (Hardjana 2018).

By observing current phenomena on music quality, the way new generations create and appreciate music, this paper aims to find the relationship between music, technology, and the Internet. What is the impact of technology on the creation process of music? What impact the Internet has on the format quality of digital music.

2. Method

This research used a qualitative method based on observation of young generation phenomena in Sound Design course followed by interviews. The Types of interviews used were unstructured interviews and focus group interviews. Malinowski stated that unstructured interviews were more often used in understanding behavior of a group of complex people without a priori constraints to obtain rich data. This is different from structured interviews which were more limited but produced more accurate data. (Denzin and Lincoln 1997).

In subsequent observations, researchers changed roles into participants and also performed those activities. Participant-observer was chosen as an advanced research method to better understand existing phenomena. The researcher then analyzed and interpreted digital music as an object of research and musician as a subject of research.

Other phenomena outside class were also observed to convince researchers that there was a similar tendency in our society, especially in digital society, in Instagram stories, IG TV, and Youtube. Observed tendency was checked against products or music creation which used technology and the Internet.

3. Result and Discussion

The relationship of music, technology and the internet have been researched in various fields. for example music publications, legal downloading including research that focuses on music publications, the legality of downloading, and music distribution.

Literature

Margounakis from International Hellenic University and Politis from Aristotle University of Thessaloniki researched the internet influence on music. They wrote an article entitled "The Effect of Networking Revolution on Digital Music" in the International Journal for Digital Society, containing the tendency of new musicians in cyberspace because of the internet. They formed or joined the community and distributed work independently, without regardless of major labels. They used youtube or a website to show their music. (Margounakis and Politis 2013)

Other literature has also discussed digital music marketing in Indonesia. The article entitled "Music Marketing in the Digitalization Era of the Music Industry in Industry 4.0 in Indonesia" has explained how musicians market their work. They were used music platform to sell their music (Dewatara and Agustin 2019)

The Internet of Musical Things (IoMT) has also discussed what has changed and what might happen in the future. The relationship between the audience, wired and wireless connections, smart instruments, musicians, and everything connected to them, is discussed in this article. (Tarchet, et al. 2018)

Other discussion is about digital, human musical sensitivity and consumerism. Most digital music players have no musical sensitivity in analog music instruments unless they studied analog musical instruments. When they have no sensitivity about analog music instruments, they need so many tools. Buy, buy and buy. (Murwaningrum 2015)

That is literature which is part of our reference, but none has yet discussed the relationship between music, technology and the internet that is observed by the tendency of the younger generation in making and appreciating music.

The Observation of Young Generation

This research is based on observations of The sound design course in 2019 at theFaculty of Art and Design, Visual Communication Design, Multimedia Nusantara University. During the course, students were learning to create music for visuals digitally based on technology. Students of this class had been a visual background and most of them did not have music skills. They began to learn from references, analyze and learn music theory in a fairly short time.

Some of them made TV Commercials, and the others made audio for their games. Technology has used to create chords, rhythms, melodies and sound characters according to concepts. Music was not made with a musical instrument, but on a qwerty keyboard, midi

controller, mouse or trackpad. Music references were also listened from online platforms that they had access via the internet network.

In 2020, the Sound Design course is being run online. Students have learned the music creation process independently from home, with material guides and video tutorials from the teacher. Their tools were not complete as campus tools (generally, students only use a qwerty keyboard, mouse or trackpad). They looked for references, analyzed references, learned simple music theory. Concepts and music were produced in cyberspace digitally. Discussions and collaborations happened with the zoom conference and team viewer application. Digital data were sent through the email, and saved the data in a folder on the cloud. They used materials for lessons not only by the lecturers. They were actively searched for other sources via youtube.

This activity has also been carried out by young people outside of campus. This fact was supported by IG story and youtube which feature music making activities, either collaboratively or individually in screen recording. They meet and collaborate in cyberspace, with various levels of music skill. Collaborate with colleagues across countries and across musical genres. Music is no longer made by people with high musical theory and skills. Now, music is starting to be made by anyone who needs music.

Music is sound, music is not always an analog musical instrument. Technology can produce sound without musical instruments, and the internet means transportation and etalase. Technology and the internet used by the younger generations to make and appreciate music. One question has been answered, How about the quality of the music that is made by technology then sent and published on the internet?

Reflecting on the explanation above, the connection between music, technology and the internet certainly has an influence for humans, especially music creators and users. The music changes slowly or radically. In this research, we want to explain that music is influenced by technology and the internet.

Music is often interpreted in various contradictory definitions. Music is romance, but it is also used for war. Music is universal but subjective. Music is sound in a complete concept, very obedient to the tempo but at different times the sound is free. Music is seen as an invisible complexity, but sometimes it becomes something so simple and easy.

Music Liberation

Music, which was previously known to be complex and invisible to the eye, immediately can be visualized and even light is able to transform into sound. That new theory has changed the definition and image of music for hundreds of years. For example in spectral music, the meaning of music is no longer fixed on conventional forms, such as pop, jazz, rock. Music is considered to be micro molecules (DNA) that look more detailed. There are no more tones, melodies, and harmonies in the formal sense, but "sounds" which are free from any ties, even cultural ties. Sounds can be freely explored.

"Music is not a language. Any musical piece is akin to a boulder with complex forms, with striations and engraved designs atop and within, which men can decipher in a thousand different ways without ever finding the right answer or the best one. " (Xenaxis 1971)

One of the popular quotes from Iannis Xenakis, contained in his book entitled "Formalized Music: Thought and Mathematics in Composition" has destroyed the great paradigm. The paradigm is a conventional form of music, process and orientation of music. According to Iannis, music is no longer seen as a language or universal. Everyone is free to describe it in various ways, without right or wrong.

Technology and Music

Before the internet was invented, technology first influenced music. The discovery of sound reinforcement tools like microphones, voice recording devices, phonograph, gramophone, vinyl, cassettes and digital era are influenced music radically

Early 20th century, music was played loud in a crowd, high intensity because it was enjoyed by a lot of people. Music recording activities were only carried out in certain places and involved many people. A collective production. The 21st century, soundcard or music interface was invented. A lot of home industries emerged. Everybody enjoys music privately. Walkman with headphones, tape in the room as a personal item.

The home music industry sank the major labels that were victorious in the 1960-1990s decade. The invention of the DAW and MIDI (musical instrument digital interface) in 1983 was a massive change in the music industry. Now, everyone creates music on their own laptop. Sound engineering (synthesis, live processing, sound module), has succeeded in emerging "new habitus". A new approach that could be a-historical and far from cultural. Ease leads to imitations.

In virtual instruments, sound is not tied to musical instruments, objects that are bound to culture. The sound of traditional music or sacred music can be attached to all genres of music. Music exists at two poles, sacred and profane. Most people consider that music is entertaining. It's the same with most people's perspective in the Mozart era. Mozart made music to entertain the palace guests. The difference between the Mozart era and today is the market and industrial systems. Industry and market make music appear as "stuff".

Technology has always been paradoxical between benefits and threats. Specifically in music, technology is often assumed to be an assistive tool, but it was not as simple as that. Technology influences human perspective which has an impact on meaning and appreciation. In fact, some new music and sound composers have a high dependence on technology equipment.

Internet and Music

Music becomes an activity "playing on the internet". We can collaborate, save and send music data, sell and buy on the internet, freely. Ianis Xenakis predicted decades ago that everyone was free to "define" music. "Define" means responding to music in different perspectives. Anyone can make their own music then distribute it over the internet. Skilled or unskilled musicians are difficult to distinguish. Focus appreciation of the digital society is "viral" or not, even though it does not convey an aesthetic impression.

Quality was very important. The song mixing standard follows the speaker industry which accommodates a wide range of frequencies. Now, Quality is not an important parameter, although the need for quality is still there. But, the pattern of relationship between humans and tools can override quality. Humans prefer to listen to music from a platform rather than listening to a more detailed CD. They are listening to music everywhere. Music files on the internet are getting slimmer and lighter weight.

The Internet eliminates distance and space, but on the other hand there is only virtual reality, no trace and a dependence on the internet. Physical activity is bound to distance and space, but to emerge the emotional impression, there are physical traces. The internet, for better or worse, brings the unsolved problem, namely latency. Andrew Hugill in his publication discussed how latency affects the relationship between composer and listener. It even affects the music file format and quality.

Discussions of Internet music often focus upon the technical characteristics of the network. The merits and limitations of the various audio file formats and the variability of the user's listening environment are significant constraining factors. The lack of ability on the part of the notional creator of the music to control the listening experience of the notional consumer has led to a blurring of the distinction between composer, performer and listener. Numerous inventive solutions to these constraints have been developed, many of which are described in this publication. Perhaps even more significant is the issue of latency: the amount of time required for a message to travel across the network (Andrew Hugill 2005). He also describes five types of "internet music" among them are:

1. Music that uses a network to connect a physical room or instrument
2. Music that is created or performed in a virtual room or using a virtual instrument
3. The music is translated into the sound aspect of the network itself
4. Music that uses the internet to create music together or perform together
5. Music which is sent via the internet with various types of interactions from its users (Andrew Hugill 2005)

In the context of Digital Performing Studies, the internet has succeeded to change the human habit, art taste. The phenomena described above, clearly explain how production, distribution and consumption occur on the internet. Everyone can make, distribute, and consume something that is available on the internet.

Relasi Musik/Bunyi, Teknologi dan Internet

Bambang Sugiharto, in his article, explained about the new characteristics of humans because of the tools they use. This article, entitled "New Civilization", strengthens Don Ihde's theory that described earlier about three characteristics of technology: (1)material objects, (2)their use and (3)human relations with technology which greatly influence their views, ways of life, attitudes, and even their decisions.

Kompas newspaper on August 7 2020, Bambang Sugiharto explained that in a culture of communication and information, meaning becomes shallow. Meaning is not a reflection but a reaction. "The Meaning" is meant as reactions of likes, followers and subscribers on social media. The meaning is that we have shared only experiences, not reality. Externalization replaces reflection. Individuals no longer control the system, but the system controls the individual.

The satisfaction of many music creators that upload their music on the internet, is also based on netizens' responses (likes, followers, subscribers). In fact, people have not only changed their work patterns, but have become a "new habitus" that is controlled by the system. The Digital Music Platform available on the internet is the most relevant evidence for this statement. A golden era in which algorithms played an important role.
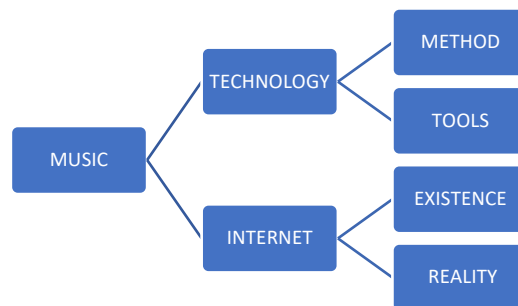
The Relationship of Music, Technology and Internet Scheeme

Music= Technology + Internet

The phenomenon that occurs in the process of making and appreciating music (especially in a pandemic situation) is no longer discussed interpersonal interactions, bodies, gestures, physical space, crowds, throwing bottles, headbangs, discos. Technology and the Internet have succeeded in creating a new movement and paradigm in the world of music, namely collaboration without limits, music without physical space even without musical instruments.

Technology= How It Works + Devices

Making music without musical instruments. The way of music is creativity and the mind, while tools are practical things or functions that can be performed blurring between creativity and thought. Everyone can be uncreative because they have been controlled by expensive and modern equipment.

Internet= Existance + Reality

The internet has become a network that provides a path and space for activity, self-expression as well as existence. The human needs to be "viral", make the humans do anything, including imitation, repetition, copy and paste in music, so we don't know who was the first creator. The Internet is a solution to new problems. The internet has a quality impact on music files.

Another issue is about existence. The existence of music in the internet era is not creating demarcation and hierarchy, but it creates a big gap for humanity. Some musicians who want to exist for a long time, are prone to feeling worries. The internet presents broad but narrow realities, fast but slow, easy but difficult.

4. Conclusion

Based on the observations of the younger generation, especially in digital societies who have appreciated music by online platform, create music with the digital tools, buy and sell music on the internet, it shows that there is a strong connection between music, technology and the internet. The tools and methods (technology) of making music and enjoying music affect the musician perspectives, music impression and quality. The media for displaying and listening to music (internet) affect the form and quality of music. We also accept music that is getting narrower every day.

The relationship between humans and technology changes the human perspectives. They want to access music in a simple form, and light . This is seen from the music platforms, such as iTunes, Spotify, YouTube are increasingly popular. Our society does not complain about music quality on platforms.

Technology is able to free music from its ties to instruments and culture. Musical sounds are produced by virtual instruments and controlled using a mouse, qwerty keyboard, keyboard controller. Digital audio workstations not only capable of recording. The technology is able to direct people who are unskilled at music to be able to make music according to their needs. In fact, they can collaborate with people around the world, working together on the internet network. The internet has become a one-stop market where we can get together, take something there, make something and sell it on the spot.

The digital society in cyberspace prefers the viral one. Virals are not always aesthetic. The existence of many musicians has also shifted, some of them still stick to quality but mostly to catch up on going viral. The internet exists as a network, a path and a place. Music is taken

from the market, made in the market, exhibited in the market and sold in the market. That market is the internet. Then we just follow the rules of the internet, accept the sound there.

Furthermore, whether humans are able to take over control of the system that controls them, or is this a new pattern of civilization? Looking far ahead, will there be a post internet era? It is only right that music, technology, and the internet are synergies that should not be read in isolation. The relationship between the three of them is not just a mode but a discourse.

5. References

Dellyana, Dina. 2020. Music Ecosystem mapping. Collaborate presentation of Koalisi Seni, KAMI, dan BETA.

Denzin K, Norman and Lincoln S, Yvonna. 2007. Handbook of Qualitative Research. California

Dewatara, Gerry & Agustin, Sari. 2019. Music Marketing in the Digitalization Era of the Music Industry in Industry 4.0 in Indonesia. Scientific Journal of Communication Science, WACANA vol 18 1 Juni 2019: 1-10

Doby, Michael Ian. 2001. The Impact of New Technologies of The Internet on The Music Industry: 1997-2001. Salford: Institute for Social Research, School of Music Media and Performance University of Salford.

Hardjana, Suka. 2018. The Aesthetic of Music: a Knowledge. Yogyakarta: Art Music Today

Hugill, Andrew. 2005. Internet Music: An Introduction. (Virtual Scores and Real The Playing). Contemporary Music Review. Routlede.

Lim, Francis. 2008. Philosophy of Technology: Don Ihde about Humans and Tools. Yogyakarta: Kanisius

Murwaningrum, Dyah. 2015. "Digital Technology as a Creative Media of Art". In proceeding of "The Art and Beyond" National Conference of Art Studies, 5 September 2015 Gadjah Mada University Yogyakaerta, edited Leilani Hermiasih et,al. Yogyakarta: Universitas Gadjah Mada 2015.

Martina Leeker, Imanuel Schipper, Timon Beyes (eds.). 2017. Performing the Digital: Performativity and Performance Studies in Digital Cultures. Niedersächsisches ministerium für wissenschaft und kultur.

Margounakis, Dimitrios & Politis, Dionysios. (2013). The Effect of Networking Revolution on Digital Music. International Journal for Digital Society. 4. 779-788. 10.20533/ijds.2040.2570.2013.0095.

Xenakis, Iannis. 1971. Formalized Music: Thought and Mathematics in Composition. Harmonologia Series 6. New York: Pendragon press

Turchet, Luca & Fischione, Carlo & Essl, Georg & Keller, Damián & Barthet, Mathieu.(2018). Internet of Musical Things: Vision and Challenges. IEEE Access 6 (Sept 0 2018): 61994-62017. 10.1109/ACCESS.2018.287.

About the Authors:
Clemens Felix Setiyawan & Dyah Murwaningrum are lecturer at Universitas Multimedia Nusantara, Indonesia.