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Studying Design within Sci-Fi Movie Posters

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Abstract This research aims to study the visual elements of graphic design in science fiction movie posters that encapsulates its story. An online focus group was conducted to describe and understand the role of design elements in science fiction movie posters. The focus group consisted of 5 participants and the discussion prioritised 3 design elements and 6 original movie posters of 5 different movies. The elements were imagery, colour and text while the movie posters were 6 highly rated, popular science fiction movie posters. The results collected showed that visual elements play an important role in movie posters to convey the story of a movie, its themes and evoke certain emotions from the viewers. Between the 3 visual elements researched, there is a clear hierarchy to the importance of the elements and being able to achieve the mentioned roles. In science fiction movie posters, the hierarchy of elements follows from imagery, colour and text, classified as most to least important. The results also show that designing movie posters requires the consideration of design principles and visual flow. Therefore, it can be concluded that together with the visual elements, a movie poster is able to convey parts of the story plot and its themes to the audience.

Key words Sci Fi, Movie Poster, Design Elements, Graphic Design

Introduction



Figure 1. People in a Cinema (Source: Hills, 2017)

Graphic design is oftentimes seen as a means for advertisement, and some argue it is simply a form of art. Malcolm Barnard, author and a senior lecturer in the history of art and design, debates that graphic design is communication (Barnard, 2005). Designers communicate messages with the use of graphics, or in other words, visual language. This is something graphic design has in common with the movie industry, as it is related to communicating with visuals and text.

Posters originally began in a grey area between fine art, advertising, popular culture, and the growing industry of graphic design (Iskin, 2014). Movie posters are a visual symbol using graphic design elements and principles (Liu & Liu, 2021). Although the elements seem typical, they are carefully and deliberately combined to effectively communicate information and evoke different emotions to and from the viewers. Other than that, they can also be looked at as timekeepers and decorative treasures (Fagerholm, 2009; Wang 2019).

Despite movie posters having the semblance of a template-akin to a formula to convey the "right" emotion, message and information, there are still some that do not completely adhere to the formula. Nonetheless, they are still able to grab the viewers' attention and effectively communicate the necessary emotion and information.

This study aims to break movie posters down to its visual elements to truly understand how creative and iconic movie posters were able to achieve this.



Figure 2 Iconic Movie Poster Collection (Source: Regan-Asante, 2021)

Problem Statement

Movie posters are promotional instruments released prior to its movie and are crucial in growing a following and building suspense (Wang, 2019). Posters initially were theatre adverts and became popular in 1866 when Jules Chéret started multi-colour stone lithos printing. Posters then continued to look monotonous, standardised and overcrowded until the 1950's when Saul Bass changed the game by placing minimal information, making it striking and summarising the essence of the movies into a single poster. He did all this by playing with colour, type, image, graphical elements, etc. and experimented with basic design principles (Horak, 2014).

Science Fiction is a genre based on facts but reimagined and inspired by the philosophical outlook on change, society, outer space, technology, etc. (Teeraprasert, 2000). It has the traits of adventure, political satire, exoticism and targets the human need to discover the new, unknown and mysterious (Kadhim, 2021, p.120). Sci-Fi movie posters often use dark colours to symbolise these mentioned targets. It plays with a lot of blue hues, as blue is often linked to technology, and splashes of warm colours for contrast (Fagerholm, 2009).

The importance of detailed and deliberate choices of visual elements in movie posters are not to be overlooked. This study identified 5 sci-fi movie posters with strong graphical elements. The focus was to understand the role of design elements and principles, and the message and/or emotions they convey in those posters. The science fiction genre was chosen as it requires additional consideration when creating a movie poster. Sci-fi posters display our dreams and worries of technological advancement (Bigman, 2011). Essentially, there is a need to find the fine line of where fiction meets reality. Therefore, the research

question is "What roles do the visual elements play in movie posters?" and the research objective is "To describe and understand the role of design elements in science fiction movie posters".



Figure 3 Metropolis (1927) Movie Poster Recreation (Source: Taylor, 2013)

Methodology

An online focus group; utilizing a qualitative approach with a non-probability sampling method, was used to carry out the primary research. From this research method, the researcher could learn what people understood, felt and thought from movie poster elements, such as colour, texts, images, etc. This method allowed definite answers and sought only to explore and understand (Farnsworth, 2019). The researcher was able to listen to live feedback and steer the conversation, asking more questions to probe their thoughts, allowing a full understanding of their opinions (Question Pro, n.d.; Madrigal & McClain, 2012). However, this methodology came with the limitations of the results being affected by the bias participants may have towards the movie posters selected and by poor participant selection (Christiansen, 2021).

Original movie posters from 5 science fiction movies were used: Metropolis (1927), Alien (1979), E.T. The Extra-Terrestrial (1982), Blade Runner (1982) and Tron: Legacy (2010). These movie posters were selected from two different lists of best 25 sci-fi movie posters (Lambrechts, 2012; ScreenCrush, 2017) to ensure that the selections were not affected by the researcher's bias or bias of one author. 2 original E.T movie posters were selected as both were iconic and original. Images of the posters can be found in Appendix 1.

In this research, the design elements of colour, text and images were focused on. Based on Kim & Suk's (2020) primary research conducted, three categories of graphical elements were identified: colour, layout, and others. Based on the research by Kim et al. (2019), the

design elements can be categorised based on 4 contents: Image of actors, Background Image, Colour and Text. Fussell (2020) states that colour, typography and images are the 3 main categories that designers need to think about when designing a movie poster.

From the collected information, it can be seen that the elements of colour, text and images are the main visual elements that can play a role in movie posters and the message(s) conveyed towards the audience.

The focus group was convened to consist of 5-8 participants, a mix of sci-fi lovers, non-sci-fi lovers, designers, and non-designers. Mixing the different type of participants allowed for a more robust group discussion, enabling the researcher to better understand all perspectives without bias as well as reach a conclusion to the research questions (Gill et al., 2008). This number of participants also allowed a good flow of conversation amongst themselves (Gill et al., 2008). A mixture of sci fi lovers and designers were chosen as they are the focus of this research. These groups allowed non-biased results and an understanding of the topic to be reached (Community Tool Box, n.d.)

The focus group discussion was designed with a total of 6 questions. The designed questions were guided by Interaction Design Foundation (n.d.), Eliot & Associates (2005) and Krueger (2002). There was a total of 3 sections to the focus group discussion: Engagement Question, Exploration Questions and Exit Questions. Each section contains 1–3 questions. Although there were only 3 exploration questions, the participants were asked for their opinion on each of the 6 science fiction movie posters.

Findings and Discussion

Through the data collected from the focus group, it can be observed that there are 2 clear roles played by the visual elements within movie posters. The roles are story creation and evoking emotions.

Story Creation

Story creation refers to the understanding of movie plot and themes that viewers can derive from a movie poster. Encoding and decoding information that is visually written into specific products, such as film, photography, and in movie posters is achieved with the use of visual elements (Williams, 2019). A good movie poster will allow viewers to have a rough understanding of the movie plot and theme before knowing any other information about the movie (Kulkarni, 2021). This is echoed in the focus group results.

The participants were able to identify key themes of all the movie posters shared with them. They explained their visual depictions using colour, image, hierarchy, text, symmetry and so on. The use of colours and imagery paired together helped form the themes that participants were able to identify. Together it gives viewers an understanding of the movie, allowing the role of story creation. A participant also inadvertently explained the importance of the element of imagery in story creation when analysing E.T. (1982) movie posters. He explained that "if the alien hand were to be like more aggressive and the human hands...less relaxed, it could tell a completely different story". This shows that imagery holds a lot of power with story creation as viewers can pick up on the small details even from the feeling, position and placement of hands. In sum, viewers are able to decipher and theorize the movie plot through imagery, text and colour. For more samples of quotes, refer to Appendix 2.

Evoking Emotions

Evoking emotions was another common role of movie posters that was noticed from the focus group data. The participants seemed to have gut feelings on certain themes or ideas from different movie posters. Visual elements play an essential role in evoking emotions from viewers as visual language is a universal language (Tuning, 2018). This can be seen as the participants were able to describe certain emotions by piecing all the visual elements together. The use of colour, text and imagery elements all played its own part individually to evoke specific emotions from the participants. When the visual elements are taken in as one whole, the participants are able to derive and/or solidify their story ideas from those

emotions, allowing them to gain better insight of the movie. A participant was able to derive certain thematic emotions of the movie poster Alien (1979) as he explained, "it gives off the mystery vibes and also gives us the horror vibe where there is nowhere to go".

His gut feelings were spot on to the movie plot and he was able to decode the poster from observing how colour, imagery and text played with each other. For example, the low-key lighting effect that is used in the poster is commonly used to signify and evoke the feeling of fear (Mohammed, 2020). For more samples of quotes, refer to Appendix 3.

Conclusion

The aim of this research was to study the visual elements of graphic design in science fiction movie posters that encapsulate the movie story. Based on the qualitative research conducted, it can be concluded that the visual elements within science fiction movie posters plays a crucial role in capturing and communicating aspects of the story to its viewers. The primary research conducted was a focus group discussion consisting of 5 participants with the objective of describing and understanding the role of design elements in science fiction movie posters.

The research methodology of a qualitative, non-probability sampling method allowed the research objective to be met. Conducting a focus group allowed participants the freedom to discuss and view from different perspectives while also permitting the researcher to steer the conversation to probe their thoughts further. It proved to be an effective method as the collected data answered the research question of 'what roles do the visual elements play in movie posters?'.

Through the data from the focus group, it is understood that visual elements of imagery, colour and text play an important role in movie posters. From these elements, viewers are able to decipher parts of the movie plot and themes. These visual elements may evoke varying emotions from each individual, but a good movie poster will bring out emotions and thoughts within the same theme and genre. The data also shows that the importance of the visual elements can be ranked as imagery, colour and text as most to least important. This does not mean to suggest that text is insignificant to a movie poster, it instead implies that text is less significant among the three elements studied. As one of the focus group participants had mentioned when describing the tagline in the Alien (1979) movie poster, "it's important to give context to what the movie... what the movie's tone may be".

Furthermore, the visual elements paired with the utilisation of design principles to create visual flow can make a strong movie poster. When paired well, it can effectively communicate the themes and emotions of a movie to the audience. A good movie poster will be able to insinuate more information to a large range of audience easily, while a poorly designed movie poster struggles to convey its themes and emotions towards the audience. In conclusion, visual elements when paired with design principles would result in being able to tell a story, evoke emotions, build compelling themes of the movie and communicate it towards the audience.

However, this study should not be understood as a complete guide to studying and understanding the visual elements in movie posters. The focus group consisted of a small sample size of only 6 movie posters of one movie genre with 5 participants. There are many other movie genres that may show different results, especially when understanding the hierarchy of visual element importance. There are also several other elements to consider when designing movie posters, such as typography, layout, localisation, and so on. Future studies should consider these aspects and explore a differing and effective research method in order to collect larger data findings that will provide an impactful learning step for designers.

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Picture Credits

Figure 1: Hills, J. (2017) Group of People Staring at Monitor Inside Room [Image] Unsplash. Available at: https://unsplash.com/photos/23LET4Hxj_U

Figure 2: Regan-Asante, S. (2021) Movie Posters: Arts & Culture [Image] Unsplash. Available at: https://unsplash.com/photos/wMkaMXTJjlQ

Figure 3: Taylor, K. (2013) Metropolis (2013) [Image] Artvee. Available at: https://artvee.com/dl/metropolis-3/

Appendices









Appendix 1. The 5 rated popular science fiction movie posters studied in the focus group conducted: Metropolis (1927), Alien (1979), Blade Runner (1982), E.T. poster 1 (1982), E.T. poster 2 (1982), Tron: Legacy (2010)

Appendix 2 (Data for Story Creation)

Moderator

Okay. Okay, so, since Sot hasn't watched this movie. Would you like to say what you think this movie is about?

Sot

I haven't necessarily watched the movie but I think I have read some sequences on it or something in a newspaper. Those Movie Review kind of things. I don't remember much of it now but it's from the poster I can tell it's something to do with aliens making contact with humans kind of but the fact that they are showing on the one... one alien hand and one child hand there, it seems to suggest it's a bit more of an innocent slash lonely encounter type of thing. Or at least that's what I feel

Appendix 2.1 Sample of transcript: A participant describing the movie plot of E.T. (1982) from observing the posters.

Moderator

Okay, so my question again is what is your understanding of the overall mood of the poster?

Alvin

Very dark

Addina

gory even on like this, a lot of...Well I haven't seen the film, but it reminds me of.. this one. There's another alien movie that's like, super gory. And it's like body horror. And it's like, all the slimes and stuff. So yeah, that's what I'm getting in this poster.

Ami

For me, it feels like there's an egg and something's coming out of it. So I feel like it's going to be something about taking over if that makes sense. Like I don't have the right words, but it feels like this swarm is going to wreak havoc, if that makes sense.

Appendix 2.2 Sample of transcript: Participants describing their assumptions of movie plot for Alien (1979)

Appendix 3 (Data for Evoking Emotions)

Ami

For me, it kind of reminds me of The Wizard of Oz Tin Man. And it kind of reminds me of like, well, it gives you the impression that this movie is about, basically like what others said, like the future, and I feel like there's gonna be like, no humans, it feels very cold. And, like, there's no life, if that makes sense.

Joshua

The thing that strikes me from this poster is a mixture between a dystopian future and as well as like a steampunk slash cyberpunk kind of vibe. Yeah cause its like in a futuristic kind of impression, but it's like, a very fantasy-like kind of thing, whereby this is what people from the past think what the future might be like. But it's like the same point can be kind of sad looking in that.

Appendix 3.1 Sample of transcript: Participants share their gut feelings evoked from the movie poster Metropolis (1927)

Addina

I think the sparkles on the first poster maybe highlight that It may be like a magical kid friendly type of feel cause you know, in Disney they will have that, especially the opening of the intro of Disney right. With the castles and everything. And they have the fireworks and all that. I kind of felt that sort of presence in the first poster and the second poster. It was all like, it's kind of like DreamWorks, if you guys remember like the boy in the cloud

Joshua

I think to add on to this, I would say that both posters give like that sense of wonder towards what can, what this movie is all about. At least, the sparkly-ness in the first one, the second one is magical-ish through the colour. So you can bring the sense of wonder, that's kind of more like a childlike innocence as compared to like Horror in the first two

Appendix 3.2 Sample of transcript: Participants share their gut feelings evoked from the E.T. (1982) movie posters

The Impact of Strong Corporate Brand Identity on Consumers

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Abstract Visual Brand Identity plays a big role in our purchase, especially its logo and the message that they bring to its consumers. It contributes to building the brand's recognition and reputation through their visual and digital communications from posters, brochures etc. The research problem of this paper is the impact of strong corporate brand identity on consumers. This study aimed to understand what makes a good brand identity and how corporate identity effect on brands reputation in consumers' perception. Thus, the data collected was conducted through an online questionnaire with participants who have a wide range of age and email interview with an expert in related fields. The results showed the importance of visual elements on brand identity and its brand recognition in consumers' perception. This is followed by logo, tagline, colour, visual image, and its typography. In conclusion, brand identity plays a huge role in consumers' perception. Every visual element is important as a brand could deliver its message to its consumers successfully and effectively.

Key words Visual Elements, Brand Identity, Sports Brand, Consumers Perception

Introduction

Brand Identity plays a big role in our purchasing decision, especially its logo and the message that the brand brings to its consumers. It contributes to building the brand's recognition and reputation through their visual and digital communications from posters, brochures etc. Jof (2018) states that graphic design pieces that are well thought out can help boost sales. People are drawn to anything that is one of a kind. A good design communicates with them. People subconsciously receive such messages when they see a unique logo design, business card, or other such design. Many viewers become loyal customers when a variety of graphic designs successfully make an impression on them. This is because graphic design marketing helps to project a company as a reliable brand. Clearly, graphic design has a significant impact on brand identity. When a brand decides to change their brand identity (logo, colour, and design), they should consider what the consumers are feeling and thinking. Having significant changes to its brand identity would lead to consumers in confusion. What is the impact then of a good and strong brand identity on the consumers?



Figure 1. Logo Brands; Nike, Adidas & New Balance

Problem Statement

The old Gap established a strong brand identity, held a good reputation and consumers would easily recognise it. The brand decided to change its logo in 2010. After the new logo was released, consumers have lost their trust and familiarity towards the brand which caused an immediate backlash on their social media platforms. As the old logo has been around for 24 years, consumers were furious that they have made a drastic change to 'Gap' name written in bold, Helvetica font and a small blue square at the corner. Less than a

week after the new logo was released, Gap decided to return to their old logo after consumers have been protesting through their social media. From this case, we have learnt that the power of the design was underestimated. As Hawley (2018) stated, consistency in design is the key for successful brand identity which creates trust towards the consumers as they are familiar with it.



Figure 2. Gap Logo (Old & New)

On the contrary, Airbnb is a good example of what a good strong corporate brand identity is. In 2014, Airbnb decided to introduce their new mission statement, as well as the redesigned Airbnb brand identity. The change of its brand identity made a good impression to its consumers from the colours, tagline, and the message that they want to convey. Especially its logo, which is a symbol that consumers could easily recognise. As in figure 3, the symbol represents people, places, love and Airbnb which is what the brand is trying to convey to the audience. And the tagline that they have created is "Belong anywhere" which embraces the message of belonging. The concept of their brand identity is to encourage people to make the most of life through their people's heavy imagery and their bold pink logo. The palette of colours they use (logo's pink and white colour) reflects kindness and protection; it portrays the brand as young and fun, feeling of tenderness and caring (Marion,2021). As Lischer (n.d) have stated, colours represent the brand's personality and what it stands for as it evokes human emotions. Airbnb has succeeded in telling their story and catches the audience's eyes through their brand identity.

Therefore, the purpose of this study is to understand what makes a good strong corporate brand identity and how strong corporate brand identity could affect consumers perception.

Research Questions

- 1. What are the key visual elements that build a good corporate brand identity?
- 2. How does a strong corporate brand identity make an impact on consumers?

Research Objectives

- 1. To Analyse what make makes a good corporate brand identity
- 2. To Evaluate how corporate identity effect on brands reputation

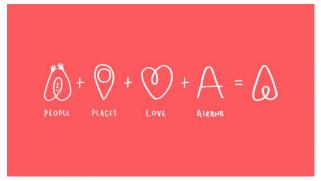


Figure 3. Airbnb Logo

Methodology

The study used a combination of qualitative and quantitative research approaches. Both methods were chosen because qualitative research is used to gather a variety of opinions and emotions. whereas the purpose of quantitative research is to collect particularised data.

The first method was a survey that contained quantitative and qualitative elements. As researchers use surveys to learn about people's attitudes, beliefs, opinions, behaviours, expectations, and characteristics regarding particular topics. It was mainly targeted to consumers who are familiar with sports brands. The survey was sent out using Google Forms and garnered 64 responses over 7 days.

For the second method, qualitative data was obtained by conducting an interview with an expert, Katrina Romulo, a designer who graduated from UC Berkeley University. Currently working at Hyper Skin as the Creative Lead, her works have featured in Vogue, Vanity Fair, Harper's Bazaar and many more, making her a suitable candidate for this interview. According to Interviewing Experts (2009) in such situations, where access to a specific social area may prove difficult or even impossible, expert interviews can also be used. As the qualitative method heavily relies on interactive interviews, researchers often speak with participants more than once to get additional information and ensure the data are accurate.

Research Design The survey contains 3 sections which includes 3 sports brands: Adidas, New Balance and Nike. These brands were mentioned to understand how the brands have achieved success through the visual elements that have been used and to understand how consumers have recognised them and what is the perception they have of the chosen brands.

General questions were asked in the first part of the survey, which included the consumers age range, gender and whether they are a regular sports brand consumer or not. Afterwards, a total of 12 questions were mentioned in the 3 sections in which the 3 brands were included. Visuals were presented alongside worded questions in the questionnaire, for the respondents to have a better grasp on the topic that was talked about. Both closed and open-ended questions were mentioned in the survey. For the closed ended questions, keywords were to choose for the consumers to describe each of the images shown. As for open ended questions, it was designed to obtain consumers' perception as each of the consumers have different opinions and thoughts regarding the topic mentioned.

As for the expert interview, 4 in-depth questions were to be asked from a designer's experience and perspective in terms of what makes a brand successful and the key visual elements of a good brand identity.

Findings and Discussion

With the use of a logo, tagline, and other visual elements, brand identity plays a crucial role in facilitating and easing the communication process on how the message will be perceived by consumers (Ambrose & Harris, 2003). The two main visual elements are colour and visual imagery. Romulo (personal email interview, 2022) believed that the visual personality of a brand identity should be distinct and distinctively its own which enable brands the opportunity to stand out from its competitors.

Logo and Tagline — One of the first interactions people have with a brand is through its logo, and it can be one of the most powerful ways to make an impression as it can attract customers' interest and entices them to learn more about the brand. Survey results show that a good logo represents the 3 elements, which are easy to remember, simple and unique. Other than a logo, a tagline is one of the most crucial components of a brand's identity and message. A tagline is a succinct statement that conveys a message about a brand or its target audience in a manner that appeals to that audience. Based on the findings, more than a half respondents have not yet recognised New Balances' tagline, "Fearlessly Independent Since 1906", as it was too long. Resonating from Lunchies (2017), a great tagline should ideally be no more than 2-4 words long and in no case more than 7-8 words. For instance, Nike's tagline, "Just Do It," doesn't necessarily reveal anything

about the company, but it does reveal a trait of their ideal customer: someone who isn't afraid to act.

Colour — Designers need to recognise their target audience and how they want the brand to be perceived. Given that colours serve as the brand's defining distinctive in all of its expressions and applications, including logos, packaging, and all collateral work (Leadem, 2016; Dawson, 2013). One of the respondents of the survey mentioned, "The colour choice gives a good feel when looking at it." This shows that the brand's message they delivered is effective and targeted to the right target audience.

Visual Images — Visual images can evoke emotions in us (Clarke, 2021). It is important that the image reflects the message the brands are trying to convey, but it should do so in a way that would complement the overall character of the visual brand identity (Botta, 2022). Based on the survey conducted on Adidas' advertising, below are some of the survey responses:

"Overall, it gives the image of power and strength."

"Images used are memorable."

"It perfectly showcases its message and target consumer."

This demonstrates that images have benefits beyond just being visually appealing, memorable, or attention-grabbing (Botta, 2022).

Consumer Perception — The importance of brands reputation is growing as online platforms now play a significant role in a brands strategy. As consumers tend to form a perception of a brand's image based on its online presence and social media interactions. Based on the survey, it shows that it is important to keep in mind that consumers' perception can be different and each of them may have their own perspective on the brand's reputation.

In addition, taking into account the brand's actions and changing consumer preferences and expectations can lead to its reputation evolving over time.

Conclusion

The purpose of this research was to discuss the impact of strong corporate brand identity on consumers. The research focused on Adidas, New Balance and Nike, three leading sports brands, to understand how these brands have achieved success through the visual elements that have been used. Besides that, the research also seeks to understand how consumers have recognised them and what is the perception they have of the chosen brands.

Primary sources were obtained using two distinct approaches: a survey by questionnaire and an expert interview. One of the most important elements of brand identity is the logo and tagline. According to the findings, a tagline shouldn't be overly complex, and a logo should be memorable in order to catch interest from consumers. Other than that, based on the results, consumers' perceptions of colour can differ based on their age, gender, personalities, etc. Each of the brands that were selected has a different target audience which allows them to have different feelings and thoughts when looking at its brand colour. Results, however, also demonstrate that all of the chosen brands have successfully used vibrant colours to draw consumers in even at first glance. Additionally, its typography and visual representation were used to support the overall brand identity. In conclusion, a visual brand identity should be recognisable and remain consistent throughout its branding. And consumer perception plays a vital role in its brand's recognition as well as its visual elements.

The research provides valuable insights, but it has several limitations. Firstly, limited primary sources used in the study, even though survey by questionnaire was used and interview of an expert was conducted. Future researchers may interview more than one expert as it could give more in-depth insights and has deepened knowledge on the related field and provide specific questions to interview to obtain more information. As one expert interview cannot say that the answers given accurately reflect the different points of view of designers as a whole.

Furthermore, the structure of the survey distributed was too complex. As respondents could get less motivated and provide inaccurate information for the sake of answering the survey. Future researchers may organise or structure the survey in a simpler manner for every participant to understand. Therefore, every research project needs to be carefully thought and managed. Since there are many areas that need to be covered, conducting primary research might be overly complex.

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Appendices

Brand Identity on Consumers	21/05/2023, 8:48 PM
3. Are you a regular consumer on sports brands such as Nike, New Bala	ance & Adidas? *
Mark only one oval.	
Yes	
No Not really	
Not really	
Section 1	
4. 1. Do you recognise this logo? *	
Mark only one oval.	
Yes No	
No	
https://docs.google.com/forms/d/1q8MKiDYJKiTKR3hpDZkcrQ944llmdiJfqiuLvNTd8A4/printform	Page 2 of 21

Appendix 1. Google Form Survey Questionnaire (Section 1)

Brand Identity on	Consumers	21/05/2023, 8:48 PM
5.	2. What do you think of the logo above?* (you may choose 1 or more options) Tick all that apply. It is simple It is easy to remember It is unique	
	It is appropriate It is versatile Other:	
6.	3. Have you heard/seen this tagline before? * "Impossible Is Nothing" Mark only one oval. Yes No Maybe	
7.	4. What is your first impression on the tagline?* Tick all that apply. It is easy to remember It is memorable It is catchy Other:	
https://docs.googl	le.com/forms/d/1q8MKiDYJKiTKR3hpDZkcrQ9441lmdiJfqiuLvNTd8A4/printform	Page 3 of 21

Appendix 2. Google Form Survey Questionnaire (Section 1)

Brand Identity on Consumers 21/05/2023, 8:48 PM

8. 5. Which three words best describe the typography and colour used in the logo?*



Modern
Simplicity
Powerful
Sophisticated
Pure
Cleanliness

https://docs.google.com/forms/d/1q8MKiDYJKiTKR3hpDZkcrQ944IImdiJfqiuLvNTd8A4/printform

Page 4 of 21

Appendix 3. Google Form Survey Questionnaire (Section 1)

Brand Identity on Consumers 21/05/2023, 8:48 PM

9. 6. Tick if you have seen these advertisements *

Tick all that apply.

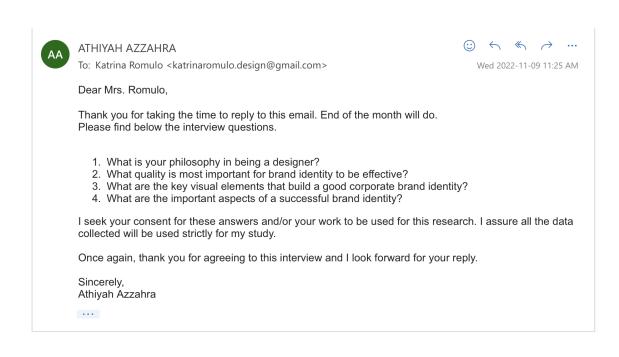


l have not seen any of the advertisements above

https://docs.google.com/forms/d/1q8MKiDYJKiTKR3hpDZkcrQ944lImdiJfqiuLvNTd8A4/printform

Page 5 of 21

Appendix 4. Google Form Survey Questionnaire (Section 1)





Katrina Romulo <katrinaromulo.design@gmail.com> To: ATHIYAH AZZAHRA



Tue 2022-12-06 3:37 AM

1. Have fun, always try to learn something new, and channel whatever you're thinking into your designs. Use your emotions and/or thoughts to drive your work.

- 2. A brand identity should tell a story or introduce a cohesive world. It should captivate customers and be instantly recognizable to them.
- 3. A good corporate brand identity should appear trustworthy and representative of its mission. It should have a really scalable wordmark or logo to fit in different mediums (ex. digital, print, small scale documents, big digital and physical assets) and allow recognition across everything. Great examples would be disney or IBM.
- 4. Brand identities should aim to take on a distinct and unique visual personality. Any assets should be consistent across all mediums (social media posts, packaging, documents) all the time. Good brand identities manage to find a balance between having a solid brand identity and a little bit of wiggle room for exploration and experimentation. Spotify is a great example of this with their Wrapped campaign every year.

Best, Kat

Appendix 5. Email Communication with Katrina Romulo

Graphic Design: Reflecting the Local Culture through Packaging Design

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Abstract Titbits, or snacks, are an integral part of Malaysian cuisine and culture. Malaysia has a diverse range of titbits, or snacks, that reflect the country's multicultural heritage. Through an extensive review of relevant literature, the research seeks to determine the type of design elements that are important in designing Malaysian titbits packaging and to explore whether these packaging designs reflect the local culture. Thus, the research method selected for the collection of primary data in this assignment was an online survey. It is conducted by using Google Forms and sent out to the public on social media which garnered a total of 82 responses. In addition, the visual analysis process was engaged by analyzing some local and imported titbits and its packaging in relation to application of visual elements, such as color, typography, and languages. In summary, the findings conclude that the use of graphic design on local titbits packaging design reflects the local culture. Every specific element on the local packaging can represent Malaysia, especially the text on the packaging as well as the use of colors, which are eye-catching and can be remembered easily.

Key words Packaging Design, Malaysian Titbits, Multicultural, Visual Elements, Graphic Design

Introduction



Figure 1. A typical scene of a "roti man" selling Malaysian titbits on his motorcycle, which is literally a mobile shop. Roti men are sellers who go around Malaysian neighborhoods selling breads (roti) and snacks.

Packaging design is the first impression for consumers to judge a product, it is the first, most important aspect. Besides, as its the customer's first time using the product, the first thing customers see and touch is that (Nichrome, 2020). Graphic design is meant to attract and keep viewers and consumers interested (Packaging Gateway, 2019). Howevver, when talking about local titbits packaging design, it is not only designed to attract consumers, but it can also help consumers remember the product by referring to the product packaging (Rudresh, 2019). Most of the local titbits does not consist of fancy packaging design, but instead, people remember the product by the colors, characters etc (Yellow Fishes, 2020). Hence, the researcher was curious as to what extent the Malaysia titbits packaging design reflects the local culture. A study objective and a research question were suggested. The researcher then conducted a literature review by thoroughly examining pertinent research articles to support and enhance this study. An online survey was conducted with a questionnaire and visual analysis on the application of visual elements on various titbits packaging to compare local and imported titbits, in addition to using secondary sources from relevant literature to gather primary data.



Figure 2 The variety of Malaysian titbits is vast and each has its own interesting packaging design

Problem Statement

The packaging of the product can be a customer's first contact with the product. The use of colors, the text on the packaging or the character are also one of the elements that helps consumers to remember the product (Yellow Fishes, 2020). The choices of shape, combination of a color palette, typeface, and elements is what makes packaging visible and understandable to consumers (Bizongo, 2023). The lettering and choice of font help create the identity of the product and the brand. Malaysian titbits packaging designs are unique in their own way. Every country or region has colors or styles that represent it, adding specific colors to the packaging does reflect the local community. Not only colors, but also the styles and languages of packaging (The Unique Group, 2017). For some of the local titbits' packaging, they contain the Jawi writing system, Malay, English and Chinese, which represent Malaysia as a multicultural and multilingual country. These packaging designs play a huge role for the product as it allows consumers to remember the product rather than just its name. The use of colors, text and character are important too. Hence, this research studies how Malaysian titbits packaging designs reflect the local culture through typography, imagery and color.

The research questions of the study are, "What design elements are important when designing Malaysian titbits packaging?" and "How do these packaging designs reflect the local culture?"

The research objectives are to determine the type of design elements that are important in Malaysian titbits packaging and to explore how these packaging designs reflects the local culture.







Figure 3 Some samples of Malaysian titbits (from left) - Bika, Popo Muruku and Durian Corn

Methodology

It is essential that the primary data also adds credibility to the research and strengthen it. A questionnaire-based online survey is the quantitative method, and the visual analysis of the packaging design for titbits is the qualitative method which focuses on comparing the imported and the Malaysian titbits.

Survey

By carrying out a survey, the researcher is able to gain information quantitatively from a larger pool of possible respondents. The survey's target audience were those over 12 that are more aware of titbits and are generally the most likely to consume it, as well as targeting groups towards young teens and young adults (Progressive Grocer, 2015). To collect accurate and related data for this research, suitable local titbits were chosen carefully for comparisons to stand out from the imported titbits, and they were Mamee Monster, Keropok Ikan, Popo Muruku, Durian Corn and Super Ring. The question starts with whether the respondents are familiar enough with local titbits as the more often they purchase, the more they are aware of it, which would help to complete the survey with more accuracy.

To get a better understanding of the respondents, they were asked if packaging design is important when they purchase the product and also to further explaintheir thoughts and reasons, as this can help to gauge a better understanding of their perspective on local titbits packaging design. Furthermore, an image of local titbits at a snack shelf with other imported snacks were attached to show that if its packaging is able to stand out amongst all other snacks, so that it could be recognized because of a certain design and color.

Delving into a deeper understanding regarding the local titbits packaging from respondents, images of the local titbits' packaging without the brand name were shown to gauge how much the packaging reflects the local culture, and how many respondents know the name of the titbits by only looking at the packaging design. As Malaysia is a multicultural country, could different languages reflect the culture? Respondents were asked what kind of visual elements reflect the local culture, and the answers include 3 important visual elements that are usually applied on packaging: text, color, and character.

Finally, a last question to get the respondents' concluding thoughts before ending the survey was done to gather additional information and opinions towards the local titbits packaging design in relation to the local culture. Altogether, the questionnaire contained 10 questions and the survey garnered a total of 82 responses. A sample survey can be found in the Appendix.

Visual Analysis

The second research method was visual analysis on the application of visual elements on the five selected Malaysian titbits packaging. Elements such as color, typography and languages on the packaging design were studied. Visual analysis was deemed suitable for this study because it was an effective way to understand the cultural connotation of each packaging design through the visual elements.

Findings and Discussion

Malaysia is a country known for its multiculturalism, with a diverse population made up of Malays, Chinese, Indians, and indigenous peoples, among other ethnic groups. Malaysia not only emphasizes the unity and inclusiveness aspect with its multiculturalism, but also its wide variety of titbits. Malaysia has a growing market for innovative and modern snacks, with flavors and packaging designs that appeal to younger generations (Anna, 2020). These include potato chips with unique flavors such as salted egg yolk and durian, and packaged

snacks with fun and colorful designs. Overall, titbits are an important part of Malaysian cuisine and culture, reflecting the country's diverse culinary heritage and love for snacking.

The use of graphic design on local titbits packaging design is an important aspect of packaging design that can help to reflect the local culture.

Titbits packaging in Malaysia reflects the country's rich and diverse culture in several ways. The 5 important design elements for designing Malaysian titbits packaging focuses on color palette, local iconography, layout, text and typography. The study's survey shows that the text on local titbits packaging reflect the Malaysian culture most, with the highest percentage of 62.2%, while color comes second with 57.3%, whereas character was at 51.2%. When it comes to the packaging of Malaysian snacks, it is imperative to take into consideration the cultural significance of specific colors in Malaysia. For example, the color red is often associated with good luck and prosperity in Chinese culture, which may be relevant for packaging targeting the Chinese Malaysian community.

Similarly, green is associated with nature and growth, which may be appropriate for packaging of titbits made from natural ingredients. Additionally, green is also a color associated with Islam and therefore applicable for the demography of Malays, who are Muslim, too (Danesh, 2020). Malaysian titbits packaging is often designed in red, which is considered for food products, and yellow, which is eye-catching and connotes freshness, happiness and positivity (Ufs, 2023), which subsequently narrates the country - Malaysia, as a friendly and welcoming culture.

The use of iconography or graphics can also create cultural significance in multicultural Malaysia. The packaging iconography found in titbits and food marketing such as the label of halal and "Made in Malaysia" certificate, is presented in newly commodified ways. In Malaysia, the halal label is more than just a religious label, it demonstrates the significance of the nation's economy, diversity, and cultural values (Baharuddin et al., 2015). Muslims make up the majority of Malaysians, and Islam is ingrained in the culture and identity of the nation. For a number of reasons, the halal label, which indicates that a product or service complies with Islamic dietary regulations, has emerged as an essential part of Malaysian culture: Food heritage, economic growth, religious significance, cultural integration (Baharuddin et al., 2015).

Malaysian titbits packaging often consist of at least 3 languages printed, which can strongly represent the multiracial country (*The Unique Group*, 2017). In the current survey, respondents say that the 3 languages reach in the context of a multilingual Malaysia, and it also becomes a trademark of a Malaysian brand, a local snack. While the typography used in Malaysian titbits packaging varies depending on the brand, some common uses are bold fonts: these fonts may have thick strokes or stylized to create a unique look.

Conclusion

In summary, the product's packaging can be a consumer's first point of contact with the product, and the use of colors, the text on the packaging or the character are also the elements that help consumers to remember the product. The research focused on the use of graphic design on local titbits packaging design to reflect the local culture. Thus, a few well-known Malaysian titbits packaging design were chosen as the study subjects, they were Mamee Monster, Keropok Ikan, Popo Muruku, Durian Corn and Super Ring.

A Google Form questionnaire was chosen as the primary research method for this study. The questionnaire provided specific questions to the target audience aged over 12 who are more aware of the titbits and are generally most likely to consume them (Progressive grocer, 2015), targeting groups towards young teens and young adults. The questionnaire was designed with some questions regarding the design elements, and the rest in relation to the local culture. Altogether, the questionnaire received 82 responses. Overall, the findings inform that the use of graphic design on local titbits packaging design reflects the local culture. Every specific element on the local packaging is able to reflect Malaysia as a whole especially the multilingual texts. In addition to that, the use of colors is considerably eye-catching and can be remembered easily.

The analysis and discussion considered how the design elements on Malaysian titbits packaging represent the local culture. These include text, color, layout, and local iconography. These design elements were identified as key elements in Malaysian titbits packaging design that could reflect the local culture and leave a strong impression on Malaysians.

To conclude, the design elements on Malaysian titbits packaging do have a similarity that could represent Malaysia, through its use of specific colors, character, multilingual texts on packaging which showcases the unique flavors and ingredients that are commonly used in Malaysian cuisine.

While the research focuses on the use of graphic design on local titbits packaging design to reflect the local culture and has provided valuable insights and recommendations, it is important to acknowledge certain limitations that may have impacted the scope and generalizability of the findings. The likelihood that the majority of the participants have already consumed the snacks is increased by the fact that all of the packaging can be found in actual Malaysian stores. The fact that many of the respondents live in Malaysia may have influenced their opinions regarding the titbits packaging designs that were included in the survey.

Therefore, building upon the research dissertation on this research, a design project could be derived with the aim of creating packaging solutions that embody a blend of contemporary design elements and Malaysian culture. This project would seek to appeal to a diverse consumer base by incorporating cultural symbolism, local aesthetics, and modern design techniques, with the aim to develop a visually appealing and culturally resonant packaging design for Malaysian titbits that showcases the rich heritage of Malaysia while maintaining a contemporary and innovative appeal.

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Picture Credits

Figure 1: Malaysian Titbits [Online Image]. Alyssa Pong (2020). Which Malaysian Childhood Snack Are You? Says. https://says.com/my/fun/quiz-which-malaysian-childhood-snack-are-you

Figure 3: Malaysian Titbits Bika, Popo Muruku, Durian Corn

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Appendices

Malaysia Titbits Packaging Design

Hello:) My name is Sarah! I am a Bachelor Degree (Hons) of Creative Media student from Taylor's University. I am doing this survey to explore the use of graphic design on local titbits packaging design to reflect the local culture. Have you ever purchased Malaysia titbits before?

It would be much appreciated if each question is answered as honestly as possible. Let's

do the survey! Sarah Cheong Yinshi Email: sarahyinshi.cheong@sd.taylors.edu.my sarahcheong5289@gmail.com Switch account 0 Not shared * Indicates required question 1. Age ange * 12-17 18-25 26-35 36 above

Appendix 1 - Google Form Survey Questionnaire: Introduction and Question 1

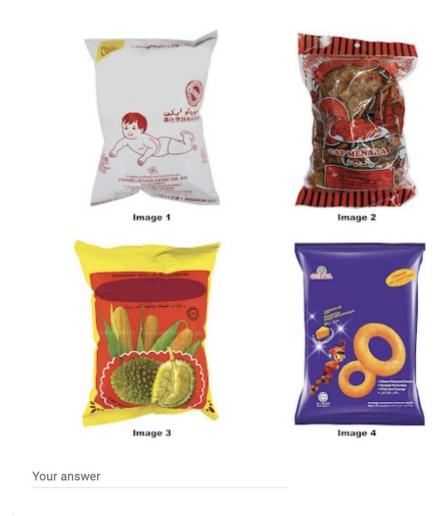
5. Referring to the image below, can you recognise which are our Malaysian local * titbits?



- O Yes
- O No
- Maybe

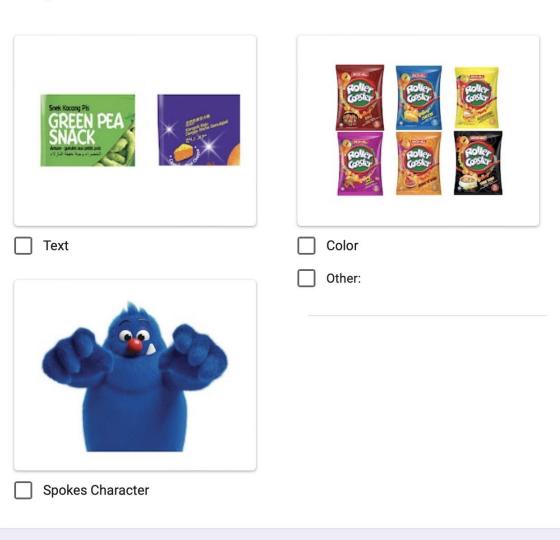
Appendix 2 - Google Form Survey Questionnaire: Question5.

6. Name the local titbits from the photo below. *



Appendix 3 - Google Form Survey Questionnaire: Question 6.

9. What kind of visual elements in local titbits packaging below that reflect the Malaysian culture?



10. Please feel free to provide additional comments about local titbits packaging designs.

Your answer

Appendix 4 - Google Form Survey Questionnaire: Question 9-10.

The Application and Influence of Design Elements on Food Packaging towards Consumers' Brand Perception

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Abstract Design elements can be found on food packaging regardless of its complexity. These design elements tend to be one of the deciding factors as to whether consumers purchase the brand's product. This research aims to examine the application and influence of design elements on two cereal packaging, Nestle and Kellogg's, towards consumers' brand perception. An online survey was conducted with 84 participants. Analysis from the study showed that there is a positive relationship between design elements on food packaging and consumers' brand perception. The results indicated that the key design elements found on food packaging are typography, colour and graphics. It was also found that design elements on food packaging can influence consumers' perception of the brand. Therefore, it can be concluded that design elements on food packaging does play a role in influencing consumers' perception of the brand.

Key words: Design elements, Food packaging, Consumers' brand perception, Cereal

Introduction

Companies from all over the world have invested billions of dollars on the design of their products' packaging during the course of the 20th century, and they continue to do so now. 56% of consumer-packaged goods (CPG) brand owners credit their rise in spending to packaging expenses, and 65% expect to raise their spending in the following years (Labels & Labeling, 2021). This is due to the fact that humankind is able to respond and take in visual data better than any form of data, be it auditory or kinesthetic.

As such, companies innovate on their designs so that they can capture the attention of its potential customers the moment they walk into places such as the local grocery store or supermarket. Today, product packaging plays an essential part of the sales process (Rettie & Brewer, 2000) and continue to influence consumers' purchase intention as survey-based research done by Ipsos showed that 72% of American consumers agreed that the "packaging design of a product affects their purchasing decision" (Ipsos, 2018). Therefore, it is important to look into the application and influence of design elements on food packaging towards consumers' brand perception.





Figure 1. Nestle & Kellogg's front packaging design.





Figure 2. Nestle & Kellogg's back packaging design.

Problem Statement

Walking through the aisle of a supermarket, it is not an uncommon sight to see a wide array of food packages of different shapes and sizes neatly placed on display. Graphical elements when innovating a product packaging is important as it affects the consumers' perception of the brand (Vyas et al., 2015). The change of graphical elements on product packaging could affect the consumers' brand perception as they might not be able to identify the new design elements on the packaging design. An example would be the Tropicana Pure Premium packaging (Marion, 2022) as shown in Figure 3. This might cause consumers to lose their emotional connection with the brand. The reason why design elements are so vital in ensuring consumers purchase the product is due to the way it communicates to its customers visually about the product and the brand. Out of the different senses, the primary sense most often utilized when making a purchase is the sense of sight (Fenko et al., 2010). As such, the visual aspects of a particular packaging can be the deciding factor in the purchase of a product since it has been found that visual elements can incite consumers' emotions (Chitturi et al., 2021); subsequently, affecting their perception of the brand. This research looks into how the application of design elements on cereal packaging can influence consumers' brand perception.

Therefore, the research questions of the study are:

- 1. What are the key design elements found on food packaging?
- 2. How are the design elements applied on food packaging to influence consumers' brand perception?
- 3. Do design elements on food packaging play a role in influencing the target audience's perception of the brand?

And the research objectives are:

- 1. To identify the key design elements found on food packaging.
- To study how design elements are applied on food packaging to influence consumers' brand perception.
- 3. To explore if design elements on food packaging play a role in influencing the target audience's perception of the brand.



Figure 3. Tropicana Pure Premium Packaging Design (Left: Before, Right: After).

Methodology

The chosen method for the research was a survey questionnaire. It was in the form of an online survey, consisting of a list of questions regarding the application and influence of design elements on cereal packaging towards consumers' brand perception. The questionnaire had both open-ended and closed-ended questions to allow respondents to contribute more information compared to multiple-choice questions. It also allowed respondents to convey their true feelings (perception) regarding the survey subject. Close-ended questions also had its benefits as it lessens irrelevant answers that researchers could find in open-ended questions and also helped in obtaining quantitative data as researchers could easily ascertain the number of people selecting each option. The inclusion of both types of questions, combined with proper sequencing, results in the aims of the online survey being efficiently met (Cleave, 2017). Nestle and Kellogg's were chosen to be used in the survey as they are the Top 10 world's most valuable food brands in 2019 (Sherred, 2019). These brands can also be found in most supermarkets. Therefore, consumers were more likely to be exposed to the brand.

The survey aimed at the general public. It was suitable for this study as everyone purchases food which made them eligible to participate in the survey. In particular, a common food product was featured in the survey, namely, cereal as a survey from Shopkick revealed that 96% of shoppers would purchase cereal every time they go on their grocery run (Maria, 2019).

A Google form link was sent to the respondents, who accessed it by clicking on the link. The survey garnered 84 responses within two weeks. Refer to the appendix for a sample of the Google form.

Findings and Discussion

From the survey, 3 key design elements on food packaging were identified – graphics, colour, and typography. 84.5% of respondents chose graphics as the most common design element found on food packaging, followed by colour (83.8%) and typography (48.8%).

Nestle

Nestle uses various design elements on their food packaging. Multiple bright colours, such as red and green, were found on their packaging. One respondent mentioned that "the colour of typography and graphics makes the key points pop out". Stephenson (2016) suggests that colour tends to stand out more from a distance compared to other design elements, thereby making it the primary visual element that captures the attention of consumers.

Various fonts and font sizes were also used on Nestle's packaging. The information provided on the packaging was easily readable with the inclusion of engaging fonts and different font sizes. Respondents mentioned that they chose Nestle's packaging design over Kellogg's as their fonts were more "eye-catching". They also mentioned that Nestle had their own font design and the text stood out. The use of appropriate font styles and arrangements are crucial in making the product stand out (Marumbwa et al., 2013). Hence, the use of different fonts could have attracted the consumers to the packaging, leading them to be interested in the product.

Furthermore, Nestle illustrated a bowl of cereal as one of their graphics on the packaging. Respondents mentioned that "the images show directly what the product is" and that "it displays the product clearly and [sic] the front". This shows that the graphics used on Nestle's packaging was vivid and descriptive which communicated what the product was about to its consumers, thereby creating a positive brand perception. Additionally, a positive relationship between packaging graphics and consumers' purchasing behaviour was also found in research done by Adam (2014).

Kellogg's

Kellogg's packaging had a simpler design compared to Nestle's packaging. Kellogg's used a variety of colours for their packaging. According to the survey, the classic red colour was the main signature of Kellogg's as their logo was often seen in red, making it recognizable by consumers. According to Gould (2014), the visual aspect of a logo that people tend to remember the most is its colour, followed by its shape, design, numbers, and words. As such, it is crucial to choose the right colours when it comes to food packaging since it may affect consumers' perception of the brand.

Kellogg's also incorporated graphics, such as rooster, cereal, and corn, on their packaging. The graphics used on the packaging received both positive and negative perceptions from the respondents. According to a study done by Venter et al. (2010), consumers develop perceptions of different food products by interpreting the visual cues on the packaging that capture their attention. A study by Lidón et al. (2018) has shown that the product's visual appearance can impact consumers' liking, willingness to purchase and other attributes of the product.

The incorporation of typography has also benefited the perception of the brand. Respondents mentioned that the typography on the packaging was "clear and easy to read". Research conducted by Wang et al. (2023) found that the use of typography influences consumer purchasing behaviour positively.

Conclusion

This research paper has discussed the application and influence of design elements on food packaging towards consumers' brand perception. The research focused on how the application of design elements on food packaging can influence consumers' perception of the brand. Nestle and Kellogg's food packaging was chosen to be studied for this research as they are the Top 10 world's most valuable food brands in 2019 (Sherred, 2019) and can be commonly found in supermarkets. Therefore, participants are more likely to be exposed to both brands.

An online survey was conducted to collect primary data, in addition to the secondary data that has been reviewed and analysed. Respondents were provided access to the online survey conducted via a Google Form link sent to them. A total of 84 responses were received within 2 weeks.

Based on the data analysis, it was found that the key design elements on food packaging were graphics, colour, and typography. The findings showed that graphics were the most important design element found on food packaging, followed by colour and typography. There were also significant findings that the application of design elements on food packaging can influence consumers' perception of the brand. Graphics on food packaging were able to communicate the product to its consumers. The use of different colours and bold typography were also able to make the packaging stand out, which drew the attention of consumers and lead them to have a positive perception of the brand.

Additionally, design elements on food packaging does play a role in influencing consumers' perception of the brand. The use of these design elements can either attract or repel consumers from the food packaging, leading them to form a perception of the brand. Consumers also form a perception of the brand the moment they lay eyes on the packaging. Therefore, design elements may play a significant role in affecting the consumers' perception of the brand.

One of the few limitations faced when conducting the research was the use of a convenience sampling method. The use of convenience sampling has brought benefits to the study, such as low cost and quick data collection. However, it also has disadvantages. The use of convenience sampling could have created sampling bias. Hence, the findings found in this study may not accurately represent everyone. Future research can consider using a more representative sample which may reduce biases and improve the accuracy of the results obtained.

In conclusion, this study could well be one of the few that has looked into the application and influence of design elements on food packaging on consumer's brand perception. The findings can help designers, food companies, and marketers make use of design elements on food packaging properly so that consumers may build a favourable perception of the brand. Future researchers can consider this research significant as it has contributed to the field of study, and they can utilise the findings as secondary data in their own research.

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Picture Credits:

Figures 1 & 2

[Kellogg's Corn Flakes]. Kellogg's. https://www.kelloggs.com/sea/en-ph/products/corn-flakes.html

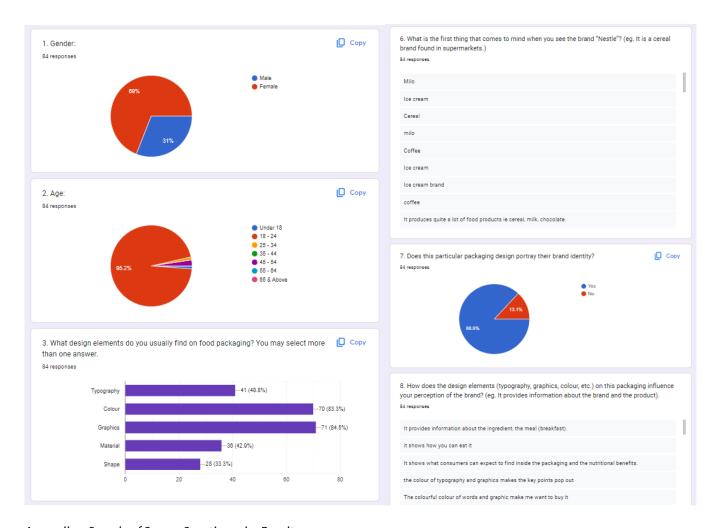
Figure 3

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Appendices

The application and influence of design elements on food packaging towards consumers' brand perception Hi there! My name is Anna. I'm a Creative Media student from Taylor's University. I'm currently conducting research on the application and influence of design elements on food packaging towards consumers' brand perception. It would be greatly appreciated if you can participate in my research. This survey will only take 10 - 15 minutes. If there are any questions, please do not hesitate to contact me: Anna Chin Email: annasiawfong.chin@sd.taylors.edu.my Thank you! Have a nice day ~	3. What design elements do you usually find on food packaging? You may select more than one answer. Typography Colour Graphics Material Shape Other:	*
annachinnn31@gmail.com Switch account Not shared Indicates required question	Based on the design of the packaging, which of these two cereal will you choose? Why? (eg. Cereal 2, because it looks more aesthetically pleasing)	*
1. Gender: * Male Female Other:	Cereal 1 Cereal 2 Restle Washington CORN FLAKES	
2. Age: * Under 18 18-24 25-34 35-44	Flakes William Corn Carried	
↓ 45 · 54↓ 55 · 64♠ 65 & Above	Your answer Next Clear for	form

Appendix 1 Sample of Google Form Questionnaire



Appendix 2 Sample of Survey Questionnaire Results

An Analysis of User Experience Methods and Solutions for Visually Impaired Web Users

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Abstract In today's digital age, technology has become an essential part of everyone's lives, yet the accessibility of websites for the blind and visually impaired community remains inadequate. This article aims to address the lack of accessibility in website design for visually impaired individuals by examining user experience methods and solutions. The study focuses on improving equitable access to information and enhancing user experience for the visually impaired community. Through a quantitative research method using a questionnaire survey, the research identifies current obstacles, explores assistive technology, and proposes effective design methodologies and solutions. The goal is to create a more inclusive digital world that empowers visually impaired individuals by providing them with equal access to online information, services, and opportunities. The study emphasizes the integration of accessibility as an intrinsic element of the user experience design process, ensuring inclusion and equal access for all users, regardless of their visual impairment. By addressing these issues and offering practical solutions, this research contributes to bridging the accessibility gap and promoting a more inclusive web environment for visually impaired individuals.

Key words User Experience, User Interface, Accessibility, Usability, Assistive Technology

Introduction

The digital age has revolutionized our lives, bringing unprecedented convenience through technological advancements. As people increasingly rely on websites for various purposes, it is crucial to ensure equal access to this technology. The Internet has become a fundamental necessity for individuals worldwide (Deshmukh et al., 2018), resulting in a significant rise in Internet users and website visits.

Despite the widespread use of websites, there remains a lack of accessibility for individuals with visual impairments, who face unique challenges in their daily lives (Bhatlawande et al., 2014). Web accessibility for the visually impaired community continues to be an unresolved issue, despite its existence for many years. The acceptance and adoption of accessible websites have not yielded satisfactory outcomes (Pohjolainen et al., 2022). Considering that accessing websites has become integral to economic, educational, and social activities, people with disabilities, including visual impairments, deserve equal access to information and the ability to utilize websites like everyone else (WHO, 2013).

To address these challenges, this analysis focuses on user experience methods and solutions for visually impaired web users. By examining the existing barriers and leveraging appropriate design approaches, it aims to enhance the user experience for individuals with visual impairments. The research endeavours to empower visually impaired users and provide them with equitable access to online information and services by bridging the accessibility gap.

Problem Statement

The prevalence of visual impairments, such as near-sightedness and distance-sightedness, affects billions of people worldwide, with a significant number of cases being preventable or unaddressed (WHO, 2021). Vision impairments can result from various factors, including uncorrected refractive errors and cataracts. Despite the introduction of e-accessibility guidelines in 2008 to facilitate the use of information and communication technologies (ICTs) by people with disabilities, many websites still lack accessibility, particularly for the

visually impaired community. The highly visual nature of websites creates barriers that exclude visually impaired users from accessing web content (Yusril, 2020).

While some websites offer accessibility features for visually impaired users, the majority of websites are primarily designed for sighted individuals.

This design approach fails to consider the unique needs of visually impaired users, with many designers and companies assuming that all users have no disabilities (Sierra & Roca de Togores, 2012). According to Oswal (2019), limited knowledge and understanding of visual impairment among the designer community contribute to the lack of consideration for visually impaired users' needs, resulting in the absence of specialized tools like assistive bots or guidelines on most websites. Moreover, the value of serving visually impaired individuals is often overlooked by businesses, perpetuating exclusionary design practices. This omission ultimately leads to inconvenience and challenges for visually impaired users (Pohjolainen et al., 2022). Addressing this issue requires a comprehensive analysis of user experience methods and solutions that prioritize accessibility and inclusivity for visually impaired individuals. By understanding their unique needs, incorporating assistive technologies, and following accessibility guidelines, website designers can create a more inclusive and user-friendly web environment for visually impaired users.



Figure 1 Example of Assistive Technology - Braille system. Credits: https://www.salesforce.org/blog/world-braille-day-2022/

Methodology

The research methodology employed in this study involved a questionnaire survey to gather data on user experience methods and solutions for visually impaired web users. The survey consisted of 24 questions divided into five sections: demographic information, web usage, web assistive technology usage, accessibility of websites, and accessible design and experience for the web. The questionnaire was designed to collect both quantitative and qualitative data, allowing for a comprehensive understanding of the participants' perspectives and experiences.

The survey was conducted using Google Forms, a cloud-based survey administration platform that offered various question formats such as multiple-choice, checkboxes, and linear scales. The platform provided flexibility in survey creation, distribution, and data analysis. The survey was disseminated online to reach a diverse range of visually impaired

respondents, both nationally and internationally. The data collection period lasted approximately 3-5 weeks, with an additional four months allowed for further responses.

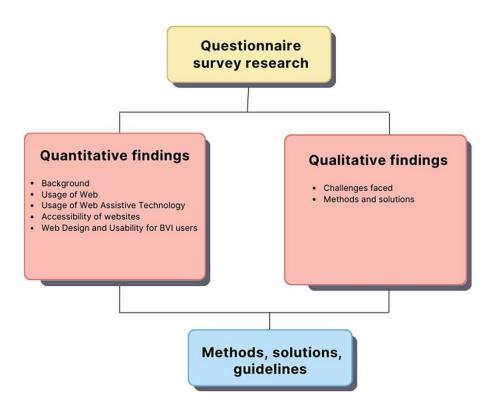


Figure 2 Design Research Process

To ensure participant privacy and confidentiality, ethical approvals were obtained, and informed consent was obtained from respondents at the beginning of the survey. Recruitment strategies included reaching out to professional networks, utilizing social media platforms, and engaging relevant communities and organizations to enhance the representativeness of the target audience. The collected data underwent statistical treatment and analysis. Google Forms provided summary statistics and graphical visualizations, such as charts and graphs, to aid in data interpretation and pattern recognition. Descriptive analysis techniques were employed to summarize and present the data effectively.

However, there were limitations associated with online surveys, including potential challenges in sampling methods, low response rates, non-response bias, and maintaining participant confidentiality. Additionally, the sensitivity of the topic and the difficulty in accessing the visually impaired community may have affected the number of respondents and the accuracy of their responses. Despite these limitations, the questionnaire survey was deemed suitable for gathering data on user experience methods and solutions for visually impaired web users. The combination of quantitative and qualitative data allowed for a comprehensive analysis of the participants' perspectives and experiences, providing valuable insights into the challenges and potential solutions in enhancing web accessibility for the visually impaired community.

Findings and Discussion

Based on the research findings in the questionnaire, it demonstrates both progress and persistent issues in internet accessibility for visually impaired users. The analysis revealed that incorrect labelling and compatibility issues with assistive technology were significant

difficulties for visually challenged respondents. Additionally, website design, including layout organization, lack of alternate text, Captchas, autoplay videos, and inability to resize text, posed challenges. While complicated layouts and graphical access were less problematic, they still hindered the user experience. To create a more inclusive web experience, the visually impaired respondents have emphasized the need for stricter adherence to online accessibility principles and standards.

Therefore, the study explored effective methods and solutions to overcome limitations in user experience for the visually impaired community. Inclusive design practices that prioritize proper labelling, compatibility with assistive technology, user-friendly layouts, alternate text for images, accessible Captchas, and configurable font sizes are crucial. These measures can address the identified challenges and enhance web accessibility for visually impaired individuals.

Responsive design with adaptable layouts was identified as an effective solution. This approach allows visually impaired individuals to access and browse web content seamlessly across multiple screen sizes and devices. It is crucial to design shallower and wider navigation structures while maintaining a minimalistic approach (do Carmo Nogueira et al., 2018).

Next, clear and consistent navigation, concise names for navigation items, logical sequencing, and skip navigation links can enhance the user experience for visually impaired individuals (Schimmel, 2021). Designing accessible forms with clear instructions, error messages, input validation, and auto-fill tools facilitates efficient form completion, while the descriptive alternative text for images, captions for videos, and transcripts for audio recordings ensure that multimedia content is accessible.

Besides that, aligning methods and solutions with web trends is essential. Involving visually impaired users in the design process through research and usability testing facilitates tailored solutions aligned with their preferences. According to Aizpurua Aguirrezabal (2017), conducting regular accessibility audits and reviews helps identify and address accessibility issues promptly. Promoting web accessibility education and awareness among designers, developers, and content providers fosters an inclusive culture. Staying updated on assistive technology advancements and incorporating suitable design elements supports their functionality.

Following that, to ensure an inclusive web experience, accessibility should be integrated into the design process from the outset. Proactive incorporation of accessibility features and techniques, such as leveraging assistive technologies and implementing accessible multimedia content, is vital. By aligning accessibility with emerging web trends, visually impaired users can have equal access to the latest online experiences.

All in all, addressing the challenges faced by visually impaired web users requires a comprehensive approach that encompasses inclusive design practices, adherence to accessibility guidelines, and collaboration with visually impaired individuals. By implementing effective design elements and aligning with web trends, the user experience for visually impaired individuals can be significantly enhanced, promoting inclusivity and equal access to web content.

Conclusion

In conclusion, the analysis of user experience methods and solutions for visually impaired web users highlights the persistent challenges faced by this community in accessing websites. Despite the widespread use of technology, web accessibility for the visually impaired remains inadequate, excluding them from equal access to online information and services. This article emphasizes the importance of addressing these accessibility gaps and proposes effective design methodologies and solutions to enhance the user experience for visually impaired individuals.

The research findings reveal the significant difficulties faced by visually impaired users, including incorrect labelling, compatibility issues with assistive technology, poor website design, lack of alternate text for images, inaccessible Captchas and autoplay videos, and the inability to resize text. These challenges hinder their ability to navigate and engage with web content effectively. To overcome these limitations, inclusive design practices are crucial. Proper labelling, compatibility with assistive technology, user-friendly layouts, alternate text for images, accessible Captchas, and configurable font sizes are identified as essential elements for improving web accessibility. Responsive design with adaptable layouts is recommended as an effective solution, enabling visually impaired users to access web content seamlessly across different devices and screen sizes.

Clear and consistent navigation, concise names for navigation items, logical sequencing, and skip navigation links enhance the user experience. Designing accessible forms with clear instructions, error messages, and input validation simplifies form completion, while descriptive alternative text, captions, and transcripts ensure multimedia content accessibility.

To align methods and solutions with web trends, involving visually impaired users in the design process through research and usability testing is crucial. Regular accessibility audits and reviews help identify and address accessibility issues promptly, while web accessibility education and awareness promote an inclusive culture among designers, developers, and content providers. Staying updated on assistive technology advancements and incorporating suitable design elements support their functionality.

In conclusion, integrating accessibility as an intrinsic element of the user experience design process is essential to bridge the accessibility gap for visually impaired web users. By implementing effective design methodologies and solutions, websites can become more inclusive, providing visually impaired individuals with equal access to online information, services, and opportunities. It is imperative to prioritize web accessibility and ensure that visually impaired users are not excluded from the digital world. By embracing inclusive design practices and adhering to accessibility guidelines, we can create a more inclusive web environment that empowers visually impaired individuals and enhances their online experiences.

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Appendices

User Experience (UX) on Websites for Visually Impaired Users

Hello! I'm Jia Hsuan, a student from the Bachelor's in Design (Hons) in

Creative Media program at Taylor's University, Selangor, Malaysia. Currently

I am in the first year of my study and conducting a study on the lack of accessibility on website design for the
<u>visually impaired</u> community (refers to a loss of vision that cannot be corrected to normal vision, even when the person is wearing eyeglasses or contact lenses). With the aim that people with visual impairment could have equal access to information throughout websites and navigate them without any issues or limitations.

The survey consists of 5 sections:

- 1. Demographic questions
- 2. Usage of web
- 3. Usage of Web Assistive Technology
- 4. Accessibility of websites
- 5. Accessible design and experience for the web

This survey is private and confidential and would take around 10-15 minutes of your time to complete all the questions. All your responses are anonymous; therefore, I would appreciate if you would carefully answer the questions below.

Disclaimer: This is strictly for educational purposes only.

* If you come across anyone you know (relative/friend) who are visually impaired, would also appreciate if you could help to extend the invitation of this survey or even help answer this on their behalf.

Thank you for your time and participation!

- * Indicates required question
- 1. Are you answering this survey on behalf of someone else? *

Yes

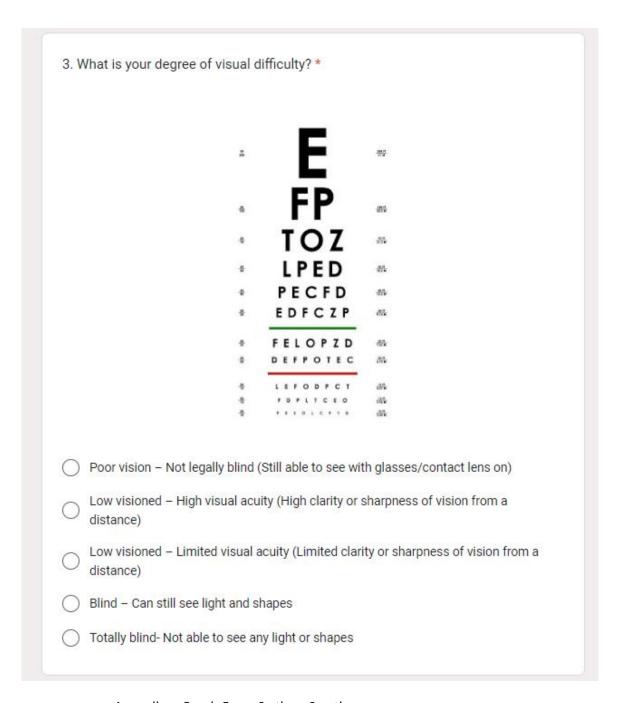
 \odot

No

Appendix 1 Google Forms Information

1. Wł	nen did you lose your eyesight?
<u> </u>	Since birth
	After an accident
	After a sickness/disease/medical condition
	Other:
2. Wł	nich kind of vision disability/visual impairment do you have?*
2. Wł	nich kind of vision disability/visual impairment do you have?*
_	nich kind of vision disability/visual impairment do you have?* Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia)
☐ F	
□ F	Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia)
F	Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia) Age-related Macular Degeneration (Old age)
	Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia) Age-related Macular Degeneration (Old age) Cataract
	Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia) Age-related Macular Degeneration (Old age) Cataract Lazy Eye
	Refractive Errors (Near-sightedness, Far-sightedness, Astigmatism, Presbyopia) Age-related Macular Degeneration (Old age) Cataract Lazy Eye Diabetic Retinopathy

Appendix 2 Google Forms Section 1 Questions



Appendix 3 Google Forms Section 1 Questions

0	14 years old and below
0	15-24 years old
0	25-34 years old
0	35-44 years old
0	45-54 years old
0	55-64 years old
0	65-74 years old
0	75 years old and above
5. \	What is your gender? *
0) Male
0) Female
	Prefer not to say

Appendix 4 Google Forms Section 1 Questions

1. On a scale of	1-5, how	frequent (do you sur	rf the web	?*	
	1	2	3	4	5	
Rarely	0	0	0	0	0	Very frequent
2. On a scale of	1-5, how	would you	u rate you	r proficien	cy in using	the internet? *
	1	2	3	4	5	
Beginner	\circ	\circ	\circ	\circ	0	Advanced
3. What kind of Education Work Entertainme News and n	ent nedia		mally look	for when	you surf t	he internet? *

Appendix 5 Google Forms Section 2 Questions

Desktop	
Laptop com	puter
Tablet devic	е
Smartphone	
Other:	
Web assistive te	ny web assistive technology while browsing the web? * chnology- Tools used by people with disabilities (e.g. visually impaired) to s in the web
	chnology- Tools used by people with disabilities (e.g. visually impaired) to
Web assistive ted accomplish tasks	chnology- Tools used by people with disabilities (e.g. visually impaired) to
Web assistive ted accomplish tasks	chnology- Tools used by people with disabilities (e.g. visually impaired) to
Web assistive ted accomplish tasks	chnology- Tools used by people with disabilities (e.g. visually impaired) to

Appendix 6 Google Forms Section 2 Questions

Usa	ge of Web Assistive Technology
*If yo	ur answer for the previous question (Q5) is <u>NO</u> , you can skip this section
	ased on the previous question, if your answer is yes, which of the following en readers do you commonly use? (Choose all that apply)
	Apple VoiceOver
	TalkBack for Android
	Voice Assistant
	NVDA (Windows)
	ChromeVox (Google Chrome)
	ORCA (Linux)
	JAWS
	None of the above
	Other:
2. W	hich of the following most accurately describes your screen reader usage?
\bigcirc	I exclusively rely on screen reader audio
\bigcirc	I primarily rely on screen reader audio, but also use visual content
\bigcirc	I primarily rely on visual content, but also use screen reader audio
\bigcirc	I exclusively rely on visual content

Appendix 7 Google Forms Section 3 Questions

	Question 2 , if you are relying on any assistive technologies to browse you face with any difficulties/obstacles/issues/limitations?
Yes	
○ No	
Maybe	
	n Question 3, if your answer is yes, please state the obstacles/issues/limitations faced.

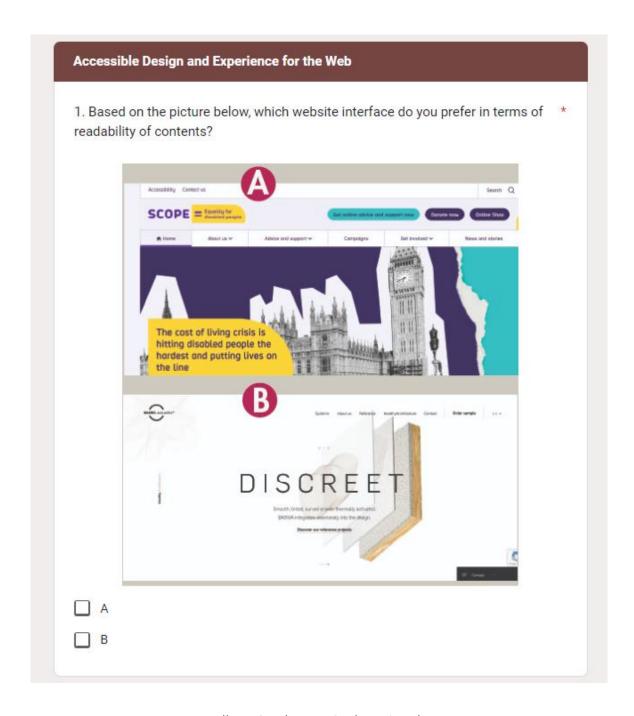
Appendix 8 Google Forms Section 3 Questions

Accessibility	of Websit	tes					
Web Accessibili websites.	ty - Wheth	er there ar	re barrie	rs that pr	revent into	eraction w	vith, or access to
1. On a scale o	-	ease rate	the acc	cessibilit	y of all t	he websi	tes that you have *
	1	2		3	4	5	
Poor		0	(0	\circ	0	Excellent
2. Web conter	nts has be	ecome m			througho		ears. *
Strongly dis	sagree	0	0	0	0	0	Strongly agree
3. There is im	provemer	nt in the a	accessi	bility of	websites	over the	previous years. *
		1	2	3	4	5	
				_		_	

Appendix 9 Google Forms Section 4 Questions

				4	5	
Strongly disagree	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Strongly agree
In your opinion, which improving web accessib		followin	g will m	ake a gre	eater diff	erence in
Better (more accessib	ble) weł	sites				

Appendix 10 Google Forms Section 4 Questions



Appendix 11 Google Forms Section 5 Questions

Based on the question above, which factors and criteria that contribute to your * ferred answer.
Page layout
Design of website
Colour contrast
Text size
Spacing of contents
Presentation of image
Other:

Appendix 12 Google Forms Section 5 Questions

The Effectiveness of Minimalist Concept in Tea Packaging Designs

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Abstract Packaging design plays an important role in influencing consumer's purchase decisions. Not only does a good packaging design attract consumers and creates a good impression, but it is also crucial in conveying necessary information about the product to consumers. While there is much research that has focused on packaging design, there has been little relating to the idea of minimalism concept in packaging designs. Therefore, this research aims to discover the effectiveness of a minimalistic concept in tea packaging designs, both in attracting consumers and conveying product information effectively. Thus, a visual analysis on three selected tea brands and a survey in the form of a questionnaire was carried out to collect primary data. The survey has garnered a total of 83 responses, in which all the respondents have provided elaborate answers and showcased their understanding of the minimalism concept in packaging designs. The results have shown that there are a few design elements that are crucial in both attracting consumers as well as conveying product information. In conclusion, minimalist concepts in tea packaging designs can be effective in conveying product information and look appealing to consumers with the consideration of proper use of design elements.

Key words Minimalist, Tea Packaging, Design Elements, Visual Analysis, Effectiveness

Introduction

The word "minimalistic" is often associated with a work of art which appears modern and contemporary. Dating back to the time when minimalism was first introduced, the design movement is still relatively new as it only came about in the late 1960s and early 1970s, particularly with American visual art (Schenker, 2021). What defines minimalism is keeping only the necessary key elements of a subject and getting rid of all the excessive and unnecessary components. When it comes to tea packaging designs, it is not necessary to include any drastic visuals to attract people to buy since most consumers are already familiar with the fragrance and taste of the tea. Minimalist design is not all about cleanliness and simplicity, it is part of a design strategy that effectively conveys the brand message in a succinct and clear manner (Stamatopoulos, 2019). A well-designed minimalist tea packaging design would be able to attract consumers as well as convey the necessary product information concisely. Hence, this research aims to study how the absence of visual images and intricate graphic elements can still make minimalistic packaging designs appear attractive and also convey the necessary product information effectively with minimal distractions.



Figure 1. Minimalist Tea Packaging by Byron Bay Tea Company



Figure 2. Minimalist Tea Packaging by Brew Tea Company

Problem Statement

According to Schifferstein, et al. (2021), product packaging design takes on the role in impacting consumers' behaviour towards food as it highly influences consumers' purchase decisions. The packaging design is crucial in helping to identify the product category as it provides information about the brand, the producer, its origins, instructions for preparation and consumption and most importantly the product properties such as nutritional value, vitamin content and expiration date. All of this product information is more reliable than the edited images of the product along with exaggerated graphical elements that may sometimes mislead the consumers based on how the product is being portrayed through the design.

As the present research will be looking into the minimalist concept in beverage packaging design, specifically tea, it is important to know what the basic rules and information in a tea packaging design are before delving into the visual communication aspect. According to Forbes (n.d.), a good tea packaging design would include a proper placement of the logo, a transparent definition about the product, authenticity and truth, differentiation from similar offers and showcasing the voice of the brand. This present research is, therefore, to study how these rules are adhered to, resulting in the effectiveness of minimalistic concepts in tea packaging design that conveys information to consumers.

Hence, the research questions of this study are:

- 1. How can product information be conveyed effectively and concisely in tea packaging designs using the minimalist concept?
- 2. Would minimalist design concepts on tea packaging designs make the packaging interesting, despite it being simple?

And the research objectives are:

- 1. To understand the idea of minimalistic concept design in tea packaging designs and how it effectively helps to convey product information to consumers.
- 2. To explore whether or not minimalist design concepts on tea packaging design makes an interest despite it being simple.



Figure 3. Minimalist Tea Packaging by Melez Tea

Methodology

To answer the first research question & research objective, a visual analysis was carried out to study the important elements and features of a tea packaging design. Through visual analysis, it will provide a better understanding of what information is necessary in a tea packaging and how minimalist concept design is able to convey this information effectively while still keeping the aesthetics of the packaging design. To reduce biasness, a number of relevant research has been studied and referred to, to underpin the visual analysis design. The three chosen brands to be analysed include Byron Bay Tea Company, Brew Tea Company and Melez Tea. These 3 brands were specifically chosen because of their strategic placement of typography, choice of shapes and unique colours that befit the minimalistic concept.

While doing the visual analysis of these 3 existing minimalist tea packaging designs, the different design components and visual elements that were covered included the background and inspiration behind the packaging design (Johnson Museum of Art, n.d.), choice of font and typography (Velasco et al., 2015), layout of product information (Velasco et al., 2015), choice of colour (Velasco et al., 2015), choice of shapes (Velasco et al., 2015) and choice of packaging material (Rebollar et al., 2017)

To answer the second research question & research objective, a survey was carried out in the form of questionnaire through Google Forms. To explore whether or not minimalist design concepts on tea packaging design makes an interest despite it being simple, it should be given judgement by the participants of the survey themselves as it helps with a fair and accurate representation of the consumers' perception of the product. The survey was made public for a period of 9 days and have garnered a total of 83 responses.

There were four sections in the survey including general questions, rating, comparison and also agreement to a statement. A sample of the Google Form survey can be found in the Appendix. In the general questions section, respondents were asked about their age, sex and also frequency of purchasing tea from the supermarket. In the second section, the term "minimalism" was introduced to help respondents understand the definition of the term. Respondents were also provided with 6 different tea packaging designs and were required to rate the likeliness of purchasing the tea packaging based on visual appearance from 1 to 5, 1 being not at all and 5 being definitely.

In the same section, respondents were also asked to choose what they think are the most important features of a tea packaging design. The options included colour, typography, visual image, material of packaging, shape of packaging and product information. In the third section, respondents were given 3 sets of pictures, each set having 2 different tea packaging designs for respondents to compare and give their reasons for their choices. In the last section, a statement related to the second research question was given and respondents were required to justify their answers with further elaboration.

Findings and Discussion

The term minimalism is about focusing on only the important functions without the use of any other unnecessary elements. In the results and findings from the survey questionnaire, it has showed that the top three most important features of a tea packaging design were visual image, material of packaging and product information. While doing the visual analysis of the three chosen brands, all three of the tea packaging designs by Brew Tea Company, Byron Bay Tea Company and Melez Tea have demonstrated the idea of minimalism in its own unique way. While each of the three packaging designs have their own identifiable traits, a few of the design elements that were given strong emphasis on were the colour, shape, typography and product information.

Colour — According to Stephenson (2016), colour plays a crucial role in conveying a message and eliciting emotions of consumers upon seeing the product packaging. Based on the survey data collected, 50 out of 83 respondents have selected colour as one of the most important features of a tea packaging with reasons such as, "Colours are vibrant and

soothing to the eye." With a good choice of colour in a minimalist tea packaging, it can attract consumer's attention as it not only stands out from its competitors but also looks better in quality.

Shape — Shapes help to create a neat and uncluttered visual appearance and also effectively communicate the purpose of the product without excess text or graphics (Holtzman, 2018). Based on the survey data collected, 41 out of 83 respondents have chosen the shape as one of the most important features of a tea packaging with reasons such as, "The shape creates a sense of compactness and simplicity." With an addition of these simple shapes in a minimalist tea packaging design, it can ultimately affect consumers' perception in terms of the packaging quality as well as consumers' emotions and general preferences.

Typography — Unlike visual graphics on a packaging, typography can effectively communicate information about the product through words without needing further interpretations (Saad & Idris, 2018). Based on the survey data collected, 30 out of 83 respondents have selected typography as one of the most important features of a tea packaging with reasons such as, "The typography used is neater and clearer to read." With simple typography in a minimalist tea packaging design, consumers can easily and accurately obtain information about the tea product.

Layout — Lastly, layout of product information helps to communicate and present the most vital information about the product in a tidy way to consumers at first glance (Stamatopoulos, 2019). Based on the survey data collected, 51 out of 83 respondents have chosen product information as one of the most important features of a tea packaging with reasons such as, "The product information here is easier to read...more space between the texts." For a minimalist tea packaging design, having a well-designed layout not only conveys the important information about the product effectively, but also helps to convince consumers on making a purchase decision.

Conclusion

This research paper aimed to discuss the effectiveness of a minimalistic concept in beverage packaging designs, specifically tea products. The two main objectives were to understand the idea of minimalistic concept design in tea packaging designs and how it effectively helps to convey product information to consumers, and also to explore whether or not the minimalist design concepts attract consumers despite it being simple. To support the research, relevant literature discussing visual elements in a packaging design and consumer perception on food packaging were reviewed.

In addition to the secondary sources, primary research was carried out including visual analysis and survey questionnaire. For the visual analysis, the design features on the packaging of Byron Bay Tea Company, Brew Tea Company and Melez Tea were observed and studied. As for the survey, all 83 respondents have answered the questions asked in the four sections including general questions, rating, comparison and agreement to a statement.

To conclude, a good and well-designed minimalist packaging design does attract consumers as well as convey the necessary product information effectively. To attract and appeal to consumers, the most important design elements and features to consider when designing a minimalist packaging design are colour, typography, shapes and product information. With a wise and strategic use of these design elements, it does not only grab the attention of consumers, but also leave a good first impression on the product and brand's image. Besides that, using clean and simple designs also helps to lay out the product information clearer and more legible without distractions. Thus, the concept of minimalism in packaging design is effective in making an interest and conveying the necessary product information to consumers.

The limitations faced during this research is that a majority of the packaging photos included in this research are products that can be found in both physical stores in Malaysia as well as online stores. There could be a possibility that not all respondents have come across the products shown in the survey questionnaire. The result of the study cannot be generalised to the public because respondents might not be familiar with the products as 90% of them are Malaysians.

For future projects, it would be useful to study other concepts of packaging designs that are currently in trend. Besides minimalism, researchers can look into concepts such as maximalism, abstract, monotone and more. While keeping to similar research objectives and design elements in those studies, researchers can also look into multisensory factors involving textures. The research method would have to be considered carefully as multisensory approaches may require physical involvement. It would also be helpful if researchers could look into how the packaging design would still be attractive while being effective in conveying product information when other concepts are applied.

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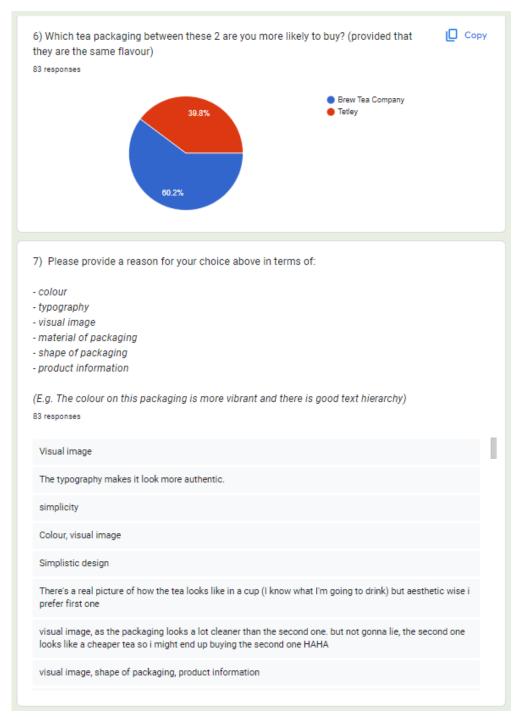
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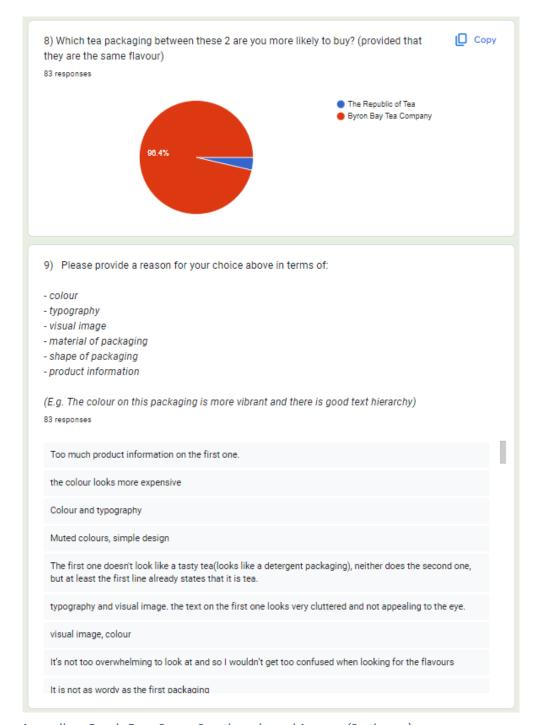
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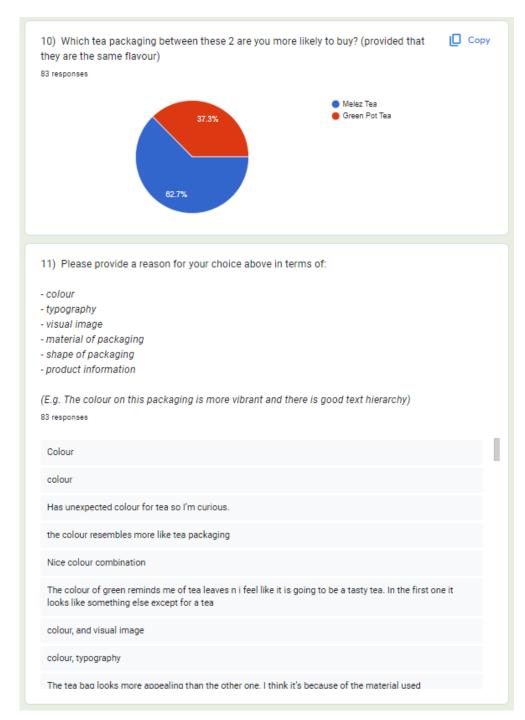
Appendices



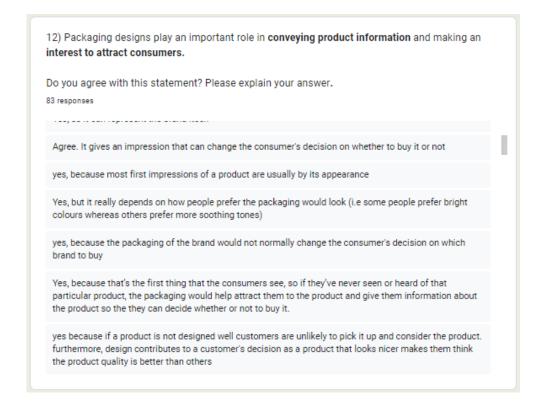
Appendix 1. Google Form Survey Questionnaire and Answers (Section 3.1)



Appendix 2. Google Form Survey Questionnaire and Answers (Section 3.1)



Appendix 3. Google Form Survey Questionnaire and Answers (Section 3.1)



Appendix 4. Google Form Survey Questionnaire and Answers (Section 3.1)

An Analysis of Game Art Capturing the Japanese Cultural Heritage

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Abstract In light of the growing popularity of educational games, this article aims to examine how game art can play an educational role in capturing the player's curiosity about cultural heritage. Research has shown that traditional teaching methods are still frequently employed in schools, which typically lack aesthetic visual engagement, causing difficulty for students to maintain their attention spans. Studies from previous literature have proven that gamification and play-based learning increase students' interest in a subject's context and speed up their memorisation of facts. This is accomplished by making players feel like they are a part of the virtual world when they are captivated by the visual elements of cultural heritage recreations. Based on mixed-method research using observational studies and surveys, findings showed that the general audience favoured a photorealistic art style, which could be applied to upcoming games with cultural content. The results suggest that game art influences how players learn about cultural heritage. Further research is required to determine the quidelines for developing effective game art in an educational game.

Key words: Art Style, Cultural Heritage, Educational Game, Game Art, Learning

Introduction

According to Nguyen (2021), the appearance of a game is the players' top priority as they give players a preview of how it will look like. Technology has broadened a range of artistic choices that give a distinctive aesthetic to the environment and character art in a game. The author also mentioned the usage of game art in some games as a tactic to entice players into learning educational matters. In the context of this article studying cultural heritage, both tangible and intangible aspects of it can be recreated in an attractive manner for all age groups by combining fun with learning (Chaisriya et al., 2022). Ćosović (2019) claims that game is an effective medium for introducing knowledge regarding cultural heritage to younger generations and therefore promoting cultural heritage. The author claims that game art has the potential to increase an individual's interest in learning by utilising human's innate behaviour of liking appealing visuals.

The article is a summarised content of the researcher's dissertation on different types of art styles and their influence on the player's cultural heritage learning experience. Therefore, the scope of research in the article is narrowed down and will only be discussing how game art plays an educational role in sparking the player's curiosity about cultural heritage.

Problem Statement

According to Xiong et al. (2020), game art offers players a chance to have a glimpse of the gameplay context without them needing any prior knowledge of the relevant topic. The public is encouraged to simply enjoy the game out of curiosity and admiration for its visual components. One of the methods of raising awareness of heritage places is through visual interaction (Sainio, 2022). In short, players can be introduced to a surface-level understanding of Japanese mythology, historical era, landmarks and folklore by observing the aesthetic visuals of the video games, such as character art, environment art, prop art and the VFX in a game.

However, there is a lack of pedagogical structure and limited historical accuracy that can lead to misinformation in most game art as their core is for entertainment purposes instead of educational purposes (Hanes & Stone, 2019), therefore the potential of game art is not fully explored yet. Games are still not suitable to be a standalone learning tool and the majority think that learning through traditional methods is more reliable since gamified learning is still not widely acknowledged by formal educational systems, especially in low and middle-income countries (Ćosović & Brkić, 2020). Therefore, the article aims to

demonstrate the benefits of visual engagement through game art in retaining the player's attention and motivating them to learn a topic of cultural heritage.

Methodology



Figure 1.1. Selected games from left to right: Paper Ghost Stories: 7 PM, Ghost of Tsushima, Hades. For this research, both quantitative and qualitative research were engaged in to obtain the necessary data to address the research problem.

In this study, both quantitative and qualitative methods were employed to conduct the research. The selected video games were Paper Ghost Stories: 7 PM which focused on Malaysian-Chinese traditions, Ghost of Tsushima which revolved around Japanese mythology and Hades which approached Greek mythology. The following games were chosen based on the ample presence of cultural heritage elements in the game as well as a decent amount of media coverage on the games themselves. The promotional posters of each game can be seen in Figure 1.1. However, the article will focus on the screenshots taken in Ghost of Tsushima and the relevant data on the game's visuals as an educational role in attracting the player's interest in cultural heritage topics.

Observational studies were conducted on three selected video games by analysing screenshots of in-game cultural heritage elements. As stated by Javatpoint (n.d.), employing observational studies allows the researcher to gain familiarity with the research materials they are observing which facilitates solidifying interpretations. The analysis was then utilised to design a questionnaire in Google Forms with sets of questions related to the video games and the research topic. Google Forms was chosen as it provides the function of sending out a questionnaire, charting the results and exporting the analysis of response to a spreadsheet (Nayak & Narayan, 2019).

The questionnaire is separated into two main sections with a total of 20 questions consisting of a mix of qualitative and quantitative methods. In Section 1, general questions were given to acquire information on the respondents' demographic, gaming background and perception of game art. The questions were listed in the form of multiple-choice questions and Likert scales to facilitate the research in collecting statistical information. In Section 2, specific questions about the three games in the form of multiple-choice questions, Likert scales and short answer questions were employed. Screenshots of the cultural heritage elements in each of the games were displayed along with the questions to supplement the respondents with relevant visuals. This section covers the research objectives by collecting information on which type of art styles are seen as attractive by the majority public among the three games. In addition, it provides an understanding of the respondents' perception of aesthetic game art. The section also covers the respondents' preferred method of learning cultural heritage and their opinions on the representation of

cultural heritage elements in game art. The data involving Ghost of Tsushima from Section 2 only will be presented as it is relevant to the research scope of the article.

Findings and Discussion

Ghost of Tsushima scored the highest in being visually engaging and aesthetic when it came to portraying cultural heritage elements of various aspects among the other games. The respondents were extremely captivated by the lighting, shading style, colour, level of detail, character design, environment ambience, application of emotions and composition in the game.

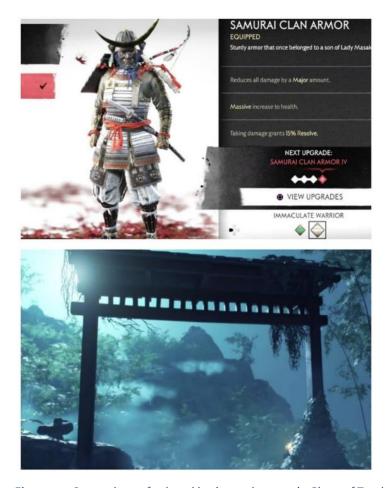


Figure 1.2. Screenshots of cultural heritage elements in Ghost of Tsushima.

Attractive visuals were one of the aspects categorised under the game part of quality educational games (Casersaman et al., 2020). Based on the information gathered in observational studies, in terms of a photorealistic art style as portrayed in Ghost of Tsushima (Fig 1.2), an accurate representation of cultural heritage can be accomplished due to the rendering technique/ advanced technology used. Due to the characteristic of its art style, the game has a great advantage in depicting real-life appearances and besides game art, its narrative stays true to Japanese mythology, which is significant in conveying correct information to the players when learning about cultural heritage.

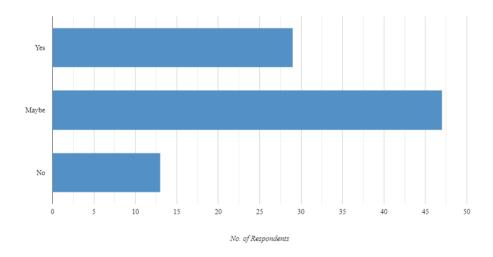


Figure 1.3. Bar chart of self-motivation in learning through cultural heritage games.

However, the responses collected regarding self-motivation in learning through cultural heritage games have provided a surprising perspective towards the ability to learn independently with games. Most of the respondents were doubtful whether they will be driven to do extra research on a cultural heritage portrayed in a game. The findings contradicted the positive responses collected in another question regarding the respondents' huge interest in seeing more involvement of cultural heritage topics in games. This showed that there is no correlation between the self-motivation in learning cultural heritage from games with the interest in seeing cultural heritage elements in games, as the former requires an active effort whereas the latter requires a passive effort. Hence, games can act as an extra tool for educators to teach topics of cultural heritage by being incorporated in the education curriculum such as in schools, instead of expecting individuals to learn on their own through playing a game. Besides, most of the respondents chose to have a mixture of traditional learning and game learning as their preference when obtaining knowledge about cultural heritage.

Regarding any concerns about learning cultural heritage through games, most respondents were sceptical about the degree of accuracy in the portrayal of cultural heritage when it came to games. Some understood that fictional components and exaggeration were needed to make the game eye-catching. However, the interpretation of cultural heritage still must be truthful. Moreover, respondents have brought up the topic of cultural appropriation and suggested that the game designers educate themselves to avoid making any offensive cultural stereotypes.

The limitation of the research materials was the involvement of topics in cultural heritage which had to be narrowed down to only three since it was impossible for the study to cover all the cultural heritage elements in the world. Finally, because not all the game's visual components were shown to the respondents, this could lead to a misguided evaluation of how well the game present cultural heritage subjects. Since no firm conclusion could be drawn yet, the opinions of the respondents should only serve as a starting point for future studies.

Conclusion:

The findings of the article showed that game art can play an educational role in sparking the player's curiosity about cultural heritage. It was concluded that a photorealistic art style was mostly favoured when studying a topic of cultural heritage. Players were more enticed to detailed graphics and their perception of an aesthetic visual was based on that standard. In terms of cultural heritage portrayal, the use of realistic lighting, shading style, colour,

degree of detail, character design, environment atmosphere application of emotions, and composition most successfully caught the player's attention.

The choice of art style also establishes a topic's tone and influences how approachable a topic is. In comparison to the other games, Ghost of Tsushima scored the highest for visual attractiveness, demonstrating that an art style's appearance must be appealing to the eye to correctly reflect cultural heritage aspects. As it is a natural human behaviour to focus on things that are visually pleasing, this can speed up a player's learning process. Ćosović (2019) agrees that games are an effective medium for educating the next generation about cultural heritage and thereby indirectly promoting it. Hence, game art has the potential to improve the general public's interest in learning by relying on people's innate preference for attractive visuals, as evidenced by the survey's finding that 69.7% of respondents strongly agree that the appearance of a game might spark their interest in cultural heritage elements. Additionally, the respondents expressed a huge interest to see a wider variety and inclusion of cultural heritage in games.

In general, game art is merely one of the several aspects of a game that can be of value as an educational tool. When designing a game with educational aspects, consideration should also be given to other factors including game narrative, mechanism, soundtrack, and gameplay. The researcher narrowed the study to game art to explore how it may be utilised to enhance a player's learning experience. Moving on to the practical implementation of the game, it is expensive to create photorealistic visual fidelity in any educational game, which raises concerns as stated by Hanes and Stones (2019) and Cosovic and Brkic (2020). Due to budgetary constraints, the cultural activities demonstrated in a game can be presented through textual information that cohesively matches the game art. To reduce the cost of cultural heritage games, a mixture of games and traditional learning (classroom teaching and textbooks) can be incorporated together while slowly introducing gamified learning to players.

In short, future research work can be centred around the implementation of commercial games into gaming pedagogy to make cultural heritage topics more engaging and interactive for students, especially in the era of technology where learning is evolving and digitalised.

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Appendices:

APPENDIX 1: Video materials used in the observational studies and questionnaire.

Disclaimer: The videos and screenshots from the videos are copyrighted material but are lawfully used by the researcher for academic research purposes only. The games chosen are not the sole representation of their related cultural heritage content. They are the researcher's personal game preferences when it comes to promoting cultural heritage content. The art styles in the games are meant to be appreciated and do not define the identity of related cultural heritage.

1) Ghost of Tsushima

https://www.youtube.com/playlist?list=PLs1UdHIwbo5fR4J12PDIJf6lyXU2oMY C

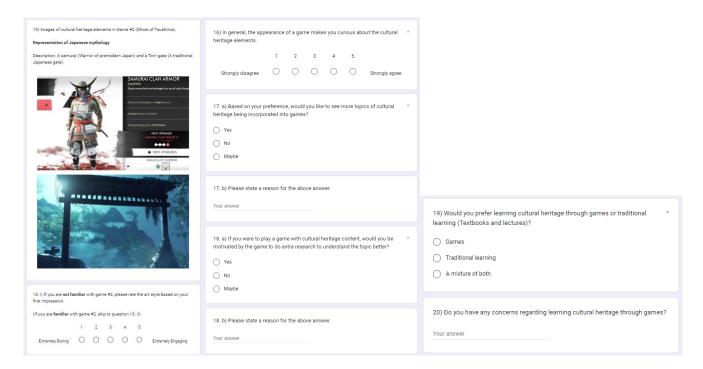
APPENDIX 2: Questionnaire structure of Section 2

Note: Ghost of Tsushima is referred as Game #2 in the questionnaire

The original link to the complete Google Forms can be accessed here https://forms.gle/GCDTVuirtFYTgspu5

							11) What aspects of game art do you think contribute to an aesthetic visual? * Lighting Shading style Colour
							Level of details
							Character design
							Environment ambience
10. ii) Game #2 *							Application of emotions
	1	2	3	4	5		Composition (Layout/ arrangement of the game elements)
Not attractive	0	0	0	0	0	Extremely attractive	All of the above

Appendix 2 Section 2 of questionnaire



Appendix 2 Section 2 of questionnaire

APPENDIX 3: Questionnaire responses

The raw data of the responses collected in the questionnaire is generated in the following Google Sheet link:

https://docs.google.com/spreadsheets/d/1eNKY9VpLDD97E9ySl2yoY3MEoozP7MGaef HSuSwrxKg/edit?usp=sharing

The Review of League of Legends Game Character Design Elements.

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25 Aug. 2023

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thedesignschool.taylors.edu.my/kreate

Abstract

Character design is one of the most important parts of a game, but character design research is always neglected when people start designing game characters. Today's game industry is growing rapidly, with new games coming out all the time, and so are game characters. However, not all game characters leave a lasting impression on people's minds, and one of the big reasons is that designers do not delve into the elements they should pay attention to when designing game characters. The purpose of this article is to highlight the main elements of character design by reviewing the characters in the game "League of Legends". An online survey was conducted based on a review of five pieces of relevant literature. Respondents were randomly selected to answer the questionnaire and the data collected was further used for visual analysis. Analysis of the responses indicated that the main elements in creating game characters were appearance, personality, abilities, and backstory. The results also showed that there are no prescribed rules or steps for designing game characters, but a lot of research and study is necessary. Based on this, a lot of thought was given to the design elements of game characters to create new characters with creative thinking that is impressive and different from existing game characters.

Key words: Game Character; League of Legends; Design Element

Introduction

There is no denying that character design plays a huge role in the game industry. As Bancroft (2006) points out in his book "Creating Characters with Personality", character design is used in all feature films with fictional, non-human actors, as well as in some movies with real actors. In fact, character design is the first step in creating visual effects for most forms of entertainment (Bancroft, 2006). "League of Legends", as a MOBA game, has a large number of game characters. For this kind of game with a large number of game characters, it is very important to design characters that will be memorable to the players and will make them use it. Studying and reviewing these characters will go a long way in understanding the principles and elements of game character design. By observing the game characters in "League of Legends" and collecting data from respondents, organizing and analyzing the characteristics of the characters will help to create more meaningful and memorable game characters.

Problem Statement

According to Bancroft (2006), character design has undeniably played a huge role in the game industry. There are many video games that involve the use of characters, and cautiously designing these characters is an effective way to improve the game experience. A better understanding of the principles of character design and analyzing the characteristics of successful game characters can help create more meaningful and memorable game characters. A successful character design not only makes the player more immersed in the game and increases the believability of the entire game world (Isbister, 2003), it also makes the game more recognizable. Characters, as the main object of attention, also play a big role in app store sales. By looking at game characters, one can distinguish the type and variety of games and their target users. Advanced technology may lead to better game development, but analyzing game characters in terms of art and design is also necessary for their success in the market.

The purpose of this article is to review the game characters in the game "League of Legends" and to highlight the elements that should be considered when designing game characters. Especially in the multiplayer online battle arena (MOBA) genre, the characters' abilities and visuals are the most important because users play different roles in the same

space (Hagung & Betha, 2017). Among the MOBA genre, League of Legends is a famous game with a large number of popularity and players. Therefore, this paper will review League of Legends in order to increase the understanding of the character design elements in the game.

In the 21st century, knowledge is the key element to improving health (Choices, 2013). Yet access to reliable health information remains a problem even in settings where clean water is taken for granted (PLoS Medicine Editors, 2013). Nevertheless, this problem could potentially be avoided with graphic designers being the key element to convey the information from the healthcare industry to the public (Balkac, M., & Ergun, E., 2018). Through design, lifesaving information could become more appealing, demonstrate valuable ideas, easier to understand, reduce boredom, awaken interest, accessible, more persuasive, memorable, and conveyed easily (Ocampo, 2011).

Since graphic design is inextricably linked to the effectiveness in communication of information to our society (Frascara, 1988), therefore this research aims to study the functionality of graphic design in creating awareness to the Malaysian public and the effectiveness of graphic design in educating the Malaysian public about the role of life saving.

Methodology

The focus was for analyzing the elements that should be included in the game character of the "League of Legends" game and how the character helps the game itself to gain visibility and recognition. Mixed methods were employed in this article to find out the elements that make the game "League of Legends" characters in the game popular. First, an online questionnaire will be used as a quantitative data collection, statistical analysis will be conducted after the survey has been completed to organize the data collected from the survey to have a deeper study and findings on the data. Secondly, a visual analysis will be conducted as a qualitative research method.

An observational study will be conducted prior to creating the questionnaire, and then a four-part questionnaire will be created based on the findings, to categorize respondents and collect data and opinions more effectively. Questions for non-player respondents will provide a short description of each character's position in the game and a larger image so that non-player can better observe the game characters through visual elements. For player respondents, the questions will be game-related and more specific, and respondents must have experience with the game to answer the questions. The questionnaire will use Google Forms (Appendix 1) as a platform and the questionnaire was shared on WhatsApp, Instagram and Facebook, through this method, data was successfully collected from 86 respondents. The target audience for this questionnaire was young people under 30 years old, as the main players of the game "League of Legends" are young people, so young people will have more knowledge about this game.

After collecting all the data from the respondents, the data will be categorized and organized, and a popular game character will be selected among the game characters representing different categories for the next data collection. To gain more insight into the design elements of the game character, the researcher will conduct a visual analysis based on the selected character that shows in Figure 1. The visual analysis will consider the findings from the questionnaire and analyze the appearance, abilities, and other aspects of the League of Legends characters to gain a deeper understanding of the design elements of the characters.

Image of the game character	Name	Type of game character represented
	Yasuo	Male character
	Jinx	Female Character
	Wukong	Non-human character

Figure 1 List of chosen characters.

Findings and Discussion

According to the data of the questionnaire survey, male make up the majority of players who play League of Legends. Among 86 questionnaire respondents, 27 are League of Legends players, 21 of whom are male.

The data collected from the survey questionnaire shows that there are some differences between players and non-players when choosing their game characters. Players choose their characters based on their abilities and position, less importance on the appearance of their characters. 25.9% of respondents said they strongly disagreed with appearance as a factor in choosing a character. Non-player respondents chose their characters based on appearance, with 39% agreeing that the appearance of their character influenced their decision to choose a character. So the visuals of a character are very important for a game to attract new players. In addition, not only the visuals of characters are important, but the visual art of the whole game should also be paid attention to, because 40.7% of players pay attention to the visuals effect produced by characters when they attack while playing the game, and good visuals can also add highlights to the game.

For players, the character's ability is the main factor they focus on when choosing a character, as players are more interested in increasing the possibility of winning in the game. Nevertheless, for non-players or players who are new to the game, it is often impossible to master all the control skills or understand all the character abilities, so it is still difficult for them to choose a character by his or her abilities. However, the complex

and detailed abilities of each character make the game more engaging and challenging. Thus, the complex and comprehensive character set is also an attractive part of the game.

In addition, the data showed that the descriptions provided by the researcher helped non-player respondents when making decisions. Since the descriptions helped non-player respondents imagine that these characters would have different tasks in different positions, and that the appearance of these characters sometimes fit better in different positions. Therefore, when designing a game character, one should consider the purpose of the game and design an appropriate visual appearance for the character for a particular game. A character's visuals should correlate with the character's abilities, allowing players to choose a character that is visually appropriate for the game. For a more complete list of survey data, please refer to Appendix 2.

Conclusion

The aim of this article is to highlight the elements of game character design by reviewing the characters of the game "League of Legends". Based on the compilation of this article, it can be concluded that there are no fixed steps in designing game characters, but a lot of research and investigation must be conducted, and many elements need to be considered, such as appearance, personality, abilities, backstory, and also mythology. This study used a mixed research approach, which helped to prove and agree with the ideas gathered from the literature review to answer the research questions. The qualitative research method helps the researcher to conduct in-depth analysis and research, while the quantitative research method helps to collect data from the respondents.

Character design is one of the most important parts of the game design and an important element of the game. Paying attention to the interactions and relationships between game characters and matching the abilities and skills of different game characters make the game more interesting and challenging. Game developers must design complex and reasonable character skills to increase the difficulty and fun of the game and make players more willing to understand and learn the skills and abilities of different game characters. In addition, the appearance of the game character is the most important element when designing a game character, as appearance is the first step for users to approach the game.

Secondly, the personality and backstory of the game character also play a great role in increasing the fun of the game, it will make the players more integrated into the game, and the recognition of the game character will be greatly enhanced. In "League of Legends", the mythological motive is also one of the selling points of its game characters. Players are familiar with the mythological characters, which improves the familiarity and affinity of players with this game character so that players will be interested in exploring this game character. In general, there are many factors to consider when designing a game character, but there are no set steps or rules, a lot of research and investigation are necessary. In addition, it is important to avoid making a design that is similar to existing game characters in the market and to create a creative and recognizable character.

The researcher encountered some limitations in conducting this article, which inevitably included the personal opinions and ideas of the researcher when conducting the visual analysis, which limited the accuracy of some of the studies, and the studies may not have been in-depth enough. Therefore, the online questionnaire was conducted to collect data and opinions from the public, to understand the opinions from the public, and to obtain data to support the research questions. However, the possibility of respondents filling in random answers without a clear understanding of the questions asked still cannot be ruled out.

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Picture Credit:

Picture in Questionnaire:

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Appendices

Section 1 of 4

Popularity survey for game characters in the League of Legends



Hello everyone, I'm a Entertainment student from Taylor's University studying in Bachelor of Creative Media Design.

I am currently conducting research on the elements of good game character design in League of Legends. The following question is about collecting data on the popularity of the game characters in the online game League of Legends.

In this survey, it is divided into two parts, League of Legends players and non-players. The opinions of both sides are important for me to collect data.

The survey will be taking less than 10 minutes. Sincerely appreciated for your participation. Thank you!

1. Which age group do you belong to? *
12 and below
O 13-17
18-25
26-30
O 31-40
O 41-50
○ 51-60
O 61 and above
Other
2. What is your gender? *
O Male
○ Female
O Prefer not to say
Other
3. Do you play online game, the League of Legends? *
○ No
O Yes

Demographic	survey o	of Leagu	e of Leg	ends pla	ayers	
They are some fu understanding.	They are some further questions to target the type of player for further understanding.					
4. How often de	o you pla	ay the or	nline gar	ne, the L	eague of	f Legends? *
	1	2	3	4	5	
Not at all	0	0	0	0	0	Everyday
Legends?	☐ PC (League of Legends) ☐ Mobile (League of Legends: Wild rift)					
The second secon	Popularity survey for champions in the League of Legends according position (For players of the League of Legends)					
The following que players and non-opinions based of Legends. Thank you!	players. L	eague of	Legends	players w	vere invite	ed to give their

6. Which is your favorite champions in League of Legends. (Category * - Support)

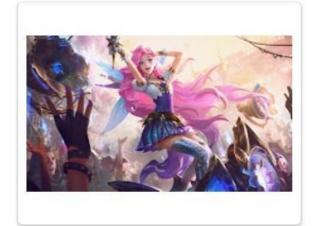


Thresh- The chain warden



Blitzcrank- The great steam golem

Other:

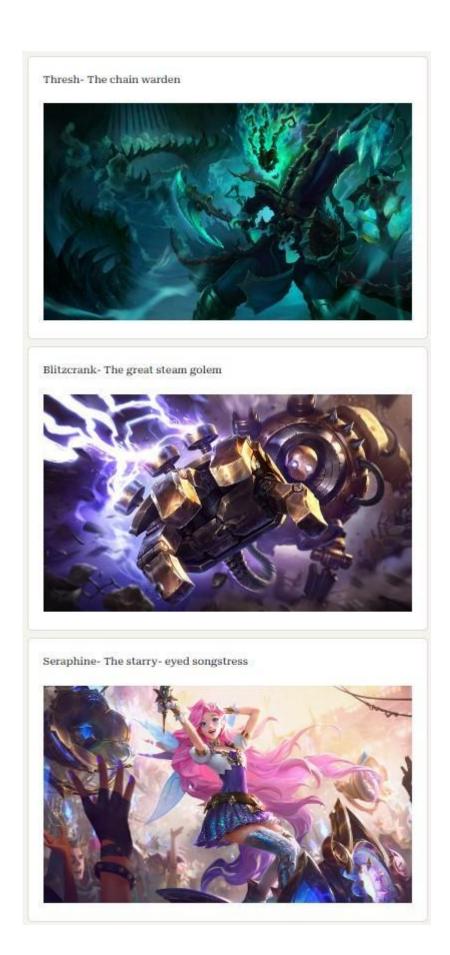


Seraphine- The starry- eyed songstress

11. The appearance of the champion will influence your decision when choosing a champion.					your decision *	
	1	2	3	4	5	
Disagree	0	0	0	0	0	Extremely agree
	12. The abilities of the champions will influence your decision when * choosing a champion.					
	1	2	3	4	5	
Disagree	0	0	0	0	0	Extremely agree
13. The visual decision when				-	attacks	will influence your *
	1	2	3	4	5	
Disagree	0	0	0	0	0	Extremely agree

14. Are there any other reasons why you chose these champions? *
Difficulty
Damage
Utinity
Skins
Gender
Category
Other:
Popularity survey for champions in the League of Legends according position (For players of the League of Legends) The following questions require responses from both League of Legends
players and non-players. League of Legends players were invited to give their opinions based on their experiences and preferences in playing League of Legends. Thank you!
Popularity survey for champions in the League of Legends according position (For non- League of Legends players)
The following questions require responses from both League of Legends players and non-players. Non-players are invited to make decisions based on visual art or their own preferences with reason. Thank you!

4. Which champions would you choose in League of Legends. (Category - Support. Playing as support means that you need to ensure everything will run smoothly for the entire team. Your goal is to help your teammates to grab minion or champion kills.)	*
Thresh- The chain warden	
Blitzcrank- The great steam golem	
Seraphine- The starry- eyed songstress	
Other:	

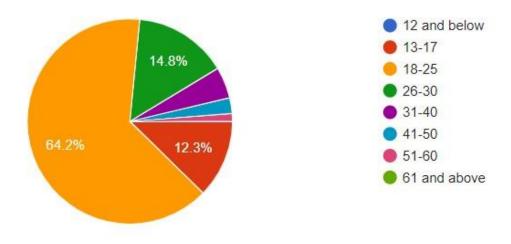


	1	2	3	4	5	
Disagree	0	0	0	0	0	Extremely agree
10. When choosing champions, the description provided will influence your decision when choosing a champion.						
	1	2	3	4	5	
Disagree	0	0	0	0	0	Extremely agree
	ue of Le	gends) e charact	ters		O posing a	Extremely agree

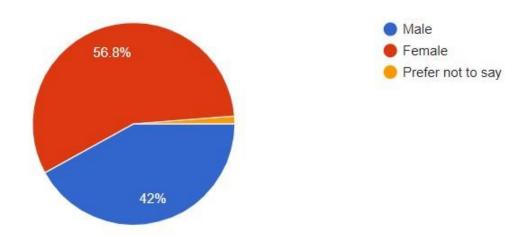
Appendix 1 Questionnaire structure.

1. Which age group do you belong to?

81 responses

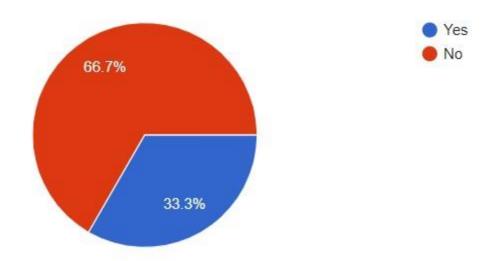


2. What is your gender?

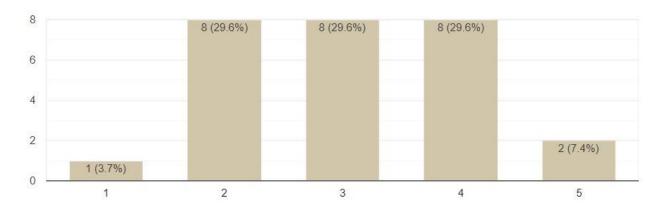


3. Do you play online game, the League of Legends?

81 responses

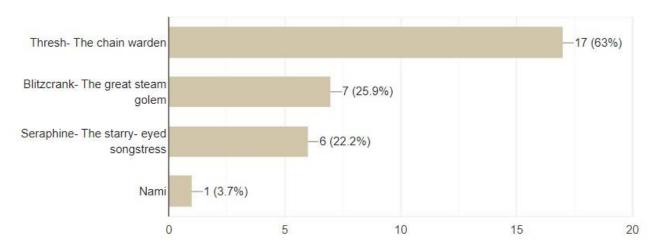


4. How often do you play the online game, the League of Legends?



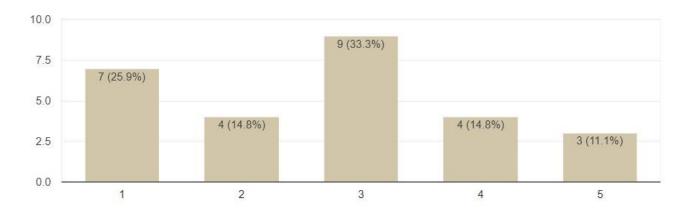
6. Which is your favorite champions in League of Legends. (Category - Support)

27 responses



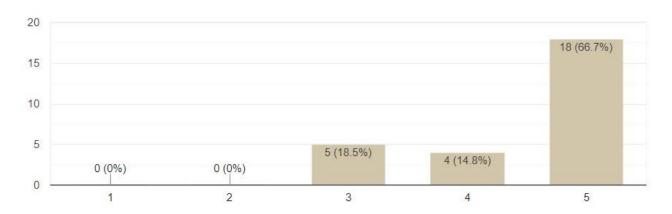
11. The appearance of the champion will influence your decision when choosing a champion.

27 responses



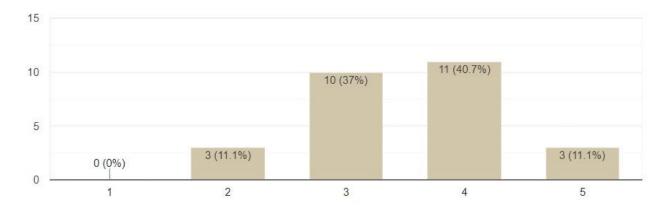
12. The abilities of the champions will influence your decision when choosing a champion.

27 responses

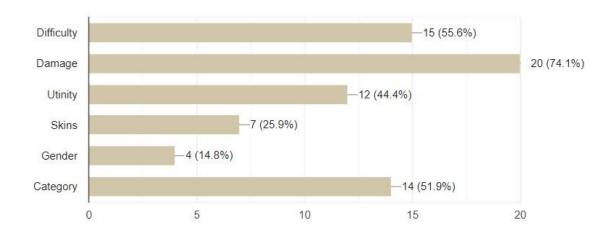


13. The visual effects when the champions attacks will influence your decision when choosing a champion.

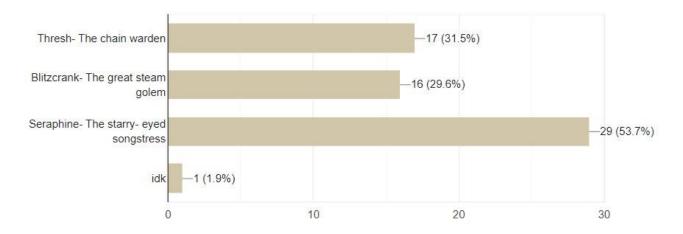
27 responses



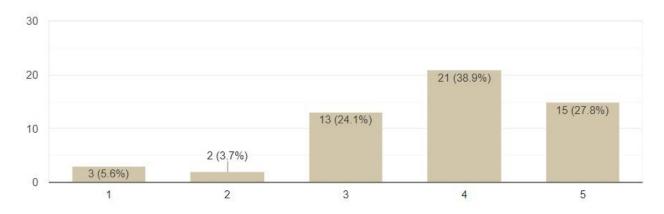
14. Are there any other reasons why you chose these champions?



4. Which champions would you choose in League of Legends. (Category - Support. Playing as support means that you need to ensure everything will run smoothly for the entire team. Your goal is to help your teammates to grab minion or champion kills.) 54 responses

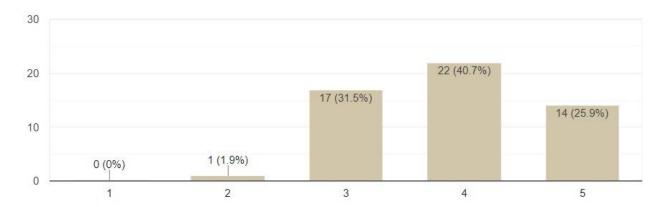


9. The appearance of the champion will influence your decision when choosing a champion.

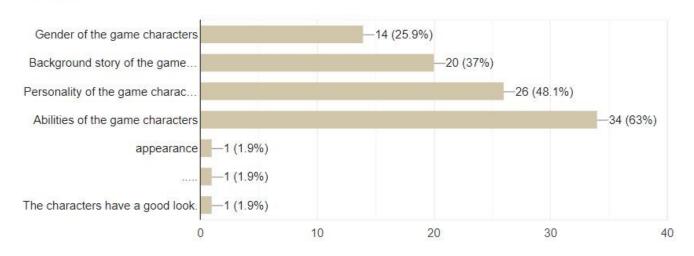


10. When choosing champions, the description provided will influence your decision when choosing a champion.

54 responses



11. Do you consider other reasons when choosing a game character? (Not just League of Legends)



Appendix 2 Data collected from questionnaire.

Implementation of Gestalt Theory in Corporate Website Design

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25 Aug. 2023

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Abstract In the modern era, electrical appliances have become a necessity of life, and many well-known brands release many new models every year. Brand's corporate websites have become a main resource for finding out a great deal for consumers, to get information about their products including specs, features, specifications, appearance, and price. The importance of online services including websites has increased dramatically from a business perspective, specifically after the Covid-19 pandemic. Accordingly, many designers are studying UX design in order to create highly usable web designs. Corporate websites, in particular, are increasingly being used not only to acquire consumers but also to build relationships with them. Interactivity is crucial to occupy visitors and lead them to the desired action and they are more likely to return to that website. However, many companies aren't making effective use of their websites. Instead of improving their brand image and increasing their willingness to purchase, many companies are losing credibility due to the inconvenience and lack of information on their websites. Therefore, this study was limited to electronics brands and examined the visual design of their corporate websites while applying the knowledge from existing research by other scholars, specifically Gestalt theory.

Key words Corporate website, Design, User experience, Gestalt principle, Consumer Electronics Brands

Introduction

This research was to improve the comprehensive overall design of a corporate website. This article highlights the methods and findings of the qualitative research only as it correlates to the focus of the article, which is how to implement Gestalt theory in the design of corporate websites. These were the conclusions made by the researcher based on the research findings that were obtained through two quantitative methods of research (surveys for the consumer side and provider side), in which the findings were presented, analysed, and discussed.

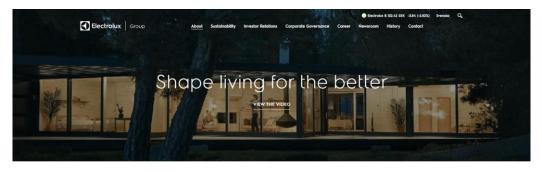




Figure 1. Study of Corporate Website Design: Reference to an actual website "Electrolux" (2022).

The Gestalt principles, based on the basic cognitive abilities of the human brain, is one of the design theories that has already been definitely established over time, and at this point in time, many studies have proven its usefulness in various design fields. A good design is a complex combination of layout, shapes, fonts, colours, and many other factors. Also, websites must be usable and present useful, usable information. "careful consideration of the structure of information and navigational design" by Levis (2008). Content hierarchy is also an important factor in whether a company's website will positively affect consumers. Gestalt principles are beneficial in structuring between the visual design and information as well.

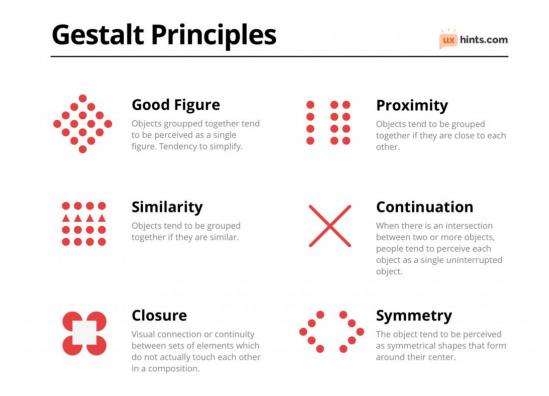


Figure 2. Gestalt Principles: Cited from UX hints.com

Problem Statement

A corporate website exists originally to communicate a company's attractive products and brand image. It was supposed to be an innovative media that could promote its products and brand to an audience that could not be reached by previous media including TV commercials, radio, or any advertisements. It is important to convince a user firstly to get involved with the website and read more of it and secondly to establish contact with the company. Since the start of the COVID-19 crisis, demand for broadband communication services has soared, with some operators experiencing as much as a 60% increase in Internet traffic compared to before the crisis. (OECD Policy Responses to Coronavirus, 2020) The importance of websites is growing exponentially from a business perspective.

However, while more users are gathering information online, many companies sometimes fail to utilize it effectively. Instead of improving their brand image and motivating customers to make purchases, many companies are often discredited by the inconvenience of their corporate websites and the lack of information they provide. Thiam. Thiam and Salim (2003) defined objective performance as an indicator to judge poor usability as follows; the capability of the visitors using the website in terms of time taken to complete specific tasks through the system.

An obvious definition of how best to design successful websites for internet marketing and service is therefore important. According to Yue (2013), Website functionality has been judged a crucial competitive advantage for energy corporations today. Similarly, this study indicates its importance in the electronics industry. The aforementioned adaptation of the

Gestalt theory was researched, resulting in having proved to become the Website design norm to guarantee the aesthetic value and functionality, in real business.

Methodology

As a research methodology, quantitative research was chosen for this study. Conducting quantitative surveys of a diverse population is important to research in websites designed to reach wide attributes of visitors because it helps researchers obtain representative, accurate, and actionable data. A quantitative survey allows researchers to collect a large amount of data in a structured and standardized way. This makes it easier to analyse and compare data, identify patterns and trends, and draw conclusions that are statistically valid.

In modern life, electrical appliances have become necessities: microwaves and refrigerators for meals, vacuum cleaners and washing machines for hygiene, and shavers and hair dryers for grooming. In other words, people of all nationalities, ages, genders, and any demographic in the world can be potential customers of the consumer electronics manufacturer under this study, so the participants were invited through social media (Instagram, Facebook, Twitter). Social media has a specific algorithm, which takes the myriad content posted by users with accounts and, based on certain rules and relevance, sorts it to suit the user's preferences and interests, and it is spread to a wider audience; many participants of various demographics would be able to be invited at once. A random sample of participants ensured that the results of the study are representative of the statistical average.

Specifically, the questionnaire was created using Google Form. The questionnaire was widely disseminated on the aforementioned online platform from October to December 2023. The questionnaire is divided into the following 3 parts and consists of 28 questions in total. Among other things, the investigation related to the Gestalt principle, the subject of this article, was conducted in Part 2. Design Research (Total 6 questions). Nine of the Gestalt principles that were identified as particularly useful in existing research were examined. The usefulness of each law was determined based on the example images collected from actual corporate websites. The results indicate that Gestalt theory can be applied to corporate websites effectively. The results for each question are discussed in detail in the next section.

Findings and Discussion

The researcher's expectation prior to the study was that 1) cultural influences would affect the visitor's ability to recognize Website designs, and 2) differences in the visitor's sense based on age would affect the visitor's ability to recognize Website designs. However, although gender differences were found in the ability to recognize some images, as discussed with the results of the Survey, the actual data did not provide evidence that demographics had a significant effect on design recognition ability. The researcher interpreted this point as follows.

UX indicators for website design are based on human cognitive processes. It is also shown that the effective use of Gestalt principles can increase the functionality and usability of a website because Gestalt principles are a specific theory that provides an efficient approach to human cognitive processes. Indicators related to basic cognitive processes, such as information organization and visual hierarchy, apply to almost everyone, regardless of race or age.



Figure 3. Pensonic Navigation Design: Reference to "Pensonic" (2022)



Figure 4. Panasonic Navigation Design: Reference to "Panasonic" (2022)

58% found Figure 3 and about 35% found Figure 4 more effective for navigation. In fact, Figure 3 has a programmatic flaw in that one of the menu items leaves the top of the red bar and wraps around the bottom at certain screen widths. The majority of the respondents found Figure 4 easy to understand, indicating that the Law of Continuation and the Law of Proximity are very important for navigation.



Figure 5. Xiaomi Corporate Website Firstview: Reference to "Xiaomi" (2022)

Figure 5 was cited as a sample of one state-of-the-art web design. The colours are also consistent with orange, monotone, and accent colours. The law of proximity is also applied to the navigation menu. More than 60% of the participants viewed the design positively, and including neutral responses, more than 81% of the respondents were not offended by it. This result indicates Law of Proximity, Unity, and Harmony are working on this design.

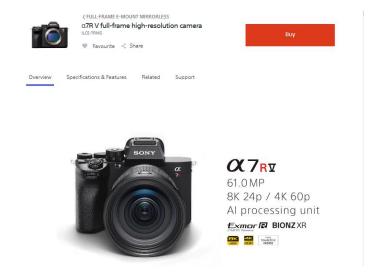


Figure 6. Sony Product Page: Reference to "Sony" (2022)

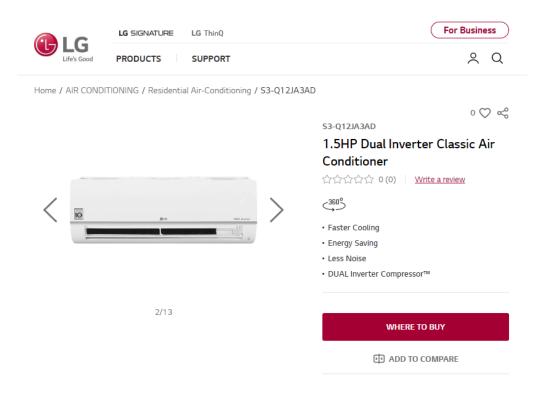


Figure 7. LG Product Page: Reference to "LG" (2022)

Two questions comparing Figures 6 and 7 were set as not about the product, but about the layout, about which is clearer, and which represents the product better. The two questions are very similar, but the researcher defined clarity and attractiveness are two completely different measures. However, as it turned out, for both questions, Sony received about 68% of the instructions, while LG received 28%, and only 4% said they did not like either. The fact that there was more disapproval of LG, which has a purchase form attached to it and explains the product's specifications and other attractions, shows that the law of simplicity is more at work.

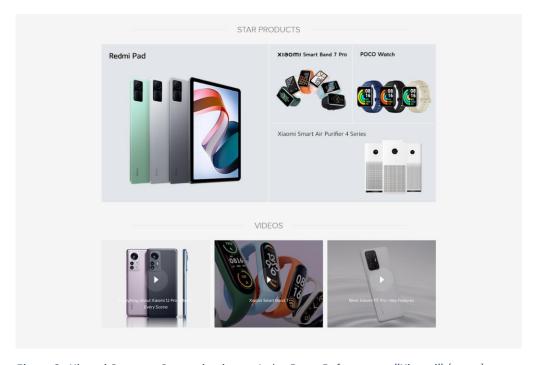


Figure 8. Xiaomi Contents Categorization on Index Page: Reference to "Xiaomi" (2022)

Conclusion

The findings indicate that Gestalt principles play a crucial role in website design and significantly impact the user experience. Specifically, the use of Gestalt principles, such as law of proximity, similarity, and closure, can improve website usability, readability, and overall aesthetics. Above all, these laws are closely related to fundamental human abilities and the Website reflecting Gestalt Theory will allow even those who know nothing about Website design to anticipate its uses to some extent. While it has been known for a long time that the effectiveness of Gestalt Principles on Website design, the results of the quantitative research conducted in this study showed that it is indeed effective and that the four principles of law of proximity, similarity, simplicity, and unity and harmony, in particular, work strongly to enhance the usability regardless of the attributes of the viewer, such as race, nationality, and gender.

Since the target was limited to corporate websites of electronics brands (many of the visual images researched in the study were famous Asian companies) and since the participants were mainly Malaysians in this study, and also Japanese, Chinese, and other Asians, this result is particularly Asian countries, which ensures certainty in Asia. The conclusions reached by this study are useful for Asian website designers or UX designers, especially knowledge that is utilizable when involved in the early stages of a website-building project for an electronics brand. It is important to mention that the findings of this study have only been confirmed for individuals of Asian descent and culture. Responses from non-Asians were collected solely from the United States and Argentina, thus further research is necessary to determine the applicability of these findings in other regions and cultures, such as Europe.

Overall, this research contributed to the understanding of the role of Gestalt principles in website design and provided insights into how electronics brands could leverage these principles to create more effective corporate websites that enhance customer behaviour. In an era where services on the internet are constantly improving and being acknowledged, the researcher hopes that his research would be useful to future projects and research by other practitioners, scholars, and researchers from similar fields.

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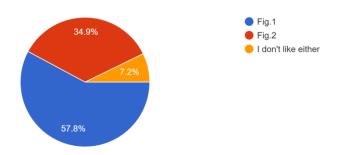
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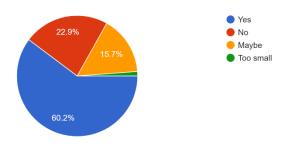
Appendices

Q.1 Based on the above interface of Fig.1 and 2, which menu design is clearer to navigation? 83 件の回答



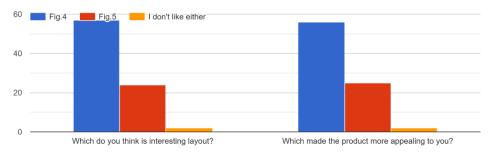
Appendix 1. Result of Design Study: Law of Continuation / Proximity

Q.2 Do you think Fig.3's first view design is appropriate? Points to note; Is the menu layout clear for you? Does the size of the slider image seem c...too large or too small? How is the color scheme? 83 件の回答



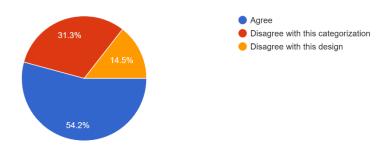
Appendix 2. Result of Design Study: Law of Proximity / Unity, Harmony

Q.3 Based on Fig.4 and 5 layouts, please answer the following questions. Points to note; Please do not refer to the product, judge the layout only. ...oduces the appeal of the product more effectively?



Appendix 3. Result of Design Study: Law of Focal Point / Proximity / Simplicity

Q.4 Fig.6 shows the categorized products on the top page. Do you think this categorization and design is beneficial to navigate to the product page? 83 件の回答



Appendix 4. Result of Design Study: Law of Closure / Similarity

An Analysis of the User Interface (UI) and User Experience (UX) of E-Commerce Applications from an Experts' Perspective

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Abstract This article studies the significance of user interface (UI) and user experience (UX) in e-commerce applications. It seeks to understand the UI and UX challenges, approaches, and characteristics involved in designing effective and user-friendly UI and UX design e-commerce applications. The study was conducted through a qualitative approach involving online interviews with UI and UX experts from various roles and demographics, with a focus on Shopee and Amazon application. The study highlighted the diverse user profiles and their corresponding behaviours, preferences, perceptions, and experiences. The study emphasises the significance of understanding the target audience, integrating cultural and contextual elements, and aligning with user preferences to create engaging e-commerce applications. Consistency in branding, compelling visual components, and a focus on key UI and UX elements are identified as essential factors for designing user-friendly platforms. The article concludes by providing recommendations that contribute to a better understanding of UI and UX design in e-commerce applications. These recommendations aim to quide designers and businesses in developing e-commerce applications that effectively meet the diverse needs and preferences of users. By taking into account the insights from this study, UI and UX designers can enhance their design approaches and create compelling experiences for e-commerce users.

Key words E-commerce Application, User Interface, User Experience, User Engagement

Introduction

The increasing prevalence of e-commerce applications in the digital landscape has transformed the way businesses and consumers engage in online transactions. According to data from Adobe, the COVID-19 pandemic has accelerated the growth of online shopping, with consumers spending an additional \$32 billion on digital purchases over the past two years (Berthene, 2022). Therefore, businesses have recognised the need to prioritise UI and UX to gain a competitive edge in the market.

In this context, UI and UX design play a pivotal role in creating user-friendly e-commerce applications. The term "UX", coined by Donald Norman, encompasses the overall usability, accessibility, and enjoyment which users interact with an application. On the other hand, "UI" focuses specifically on the visual and interactive elements of an application that enable users to navigate and engage with it (Muslim et al., 2019). A user-friendly UI and UX design fosters user engagement, leading to improved customer retention and revenue. This study aims to delve into the UI and UX design of e-commerce applications from the perspective of UI and UX experts to gain a deeper understanding of the challenges, approaches to overcome them, and key components of UI and UX design for enhancing user-friendly e-commerce applications.

Problem Statement

The growing trend of online e-commerce applications highlights the critical importance of UI and UX design in driving user engagement and overall business success. In the digital era, where users have numerous options for online shopping, the UI and UX design of an application play a pivotal role in attracting and retaining customers. A user-friendly UI and UX design create positive impressions and enhances the overall user experience, leading to customer satisfaction and loyalty.

On the other hand, poor UI and UX design has detrimental effects on user engagement and business outcomes (Sehic, 2022). Users abandon applications with confusing navigation, cluttered layouts, and frustrating experiences. Despite offering high-quality products or services, a poor UI and UX design can result in lower customer retention and negative word-of-mouth. According to Kumar (2019), modern users seek seamless and intuitive

experiences such as easy navigation, smart designs, and a promising first impression throughout the application. Positive user engagement and experience can even lead to word-of-mouth recommendations, amplifying an application's popularity. Tubik (2017) further emphasises that simplicity, strong branding, data security, effective use of visual elements, and clear data presentations significantly impact business profitability. Therefore, it is imperative to recognise that UI and UX design are crucial in driving revenue and ensuring the success of an e-commerce business.

In conclusion, the success of the online e-commerce industry relies heavily on UI and UX design. User behaviours and preferences drive the industry, and a well-designed UI and UX are instrumental in attracting and retaining customers. However, the consequences of poor UI and UX design should not be overlooked, as they can lead to negative user experiences, decreased customer retention, and hindered business growth. Therefore, UI and UX designers must understand the challenges and key components to produce designs that ensure seamless and engaging experiences for users.

Methodology

The research methodology implemented in this article involved conducting online interviews with UI and UX experts from diverse global regions to gain insights into the UI and UX design of e-commerce applications from a global perspective. This article aimed to understand the industry challenges and identify the fundamental requirements for designing a user-friendly e-commerce application across different regions and cultural contexts. Shopee and Amazon were chosen as the focus due to their prominence and influence in both Asian and Western e-commerce markets. Shopee represents the Asian Style of application, while Amazon represents the Westerns. These applications were selected based on their market presence, wide user base, and reputation for delivering quality UI and UX experiences. By examining these two applications, the study aimed to capture global perspectives on the characteristics of UI and UX design in Asian and Western e-commerce applications.

The participant selection process targeted UI and UX experts who could provide valuable insights into the UI and UX design in the e-commerce industry. A comprehensive criteriabased approach was utilised to ensure the selection of experts with diverse backgrounds and experiences. Fifteen experts were identified as potential participants. The experts were selected based on their professional expertise, demonstrated knowledge in UI and UX design, and experience designing for the e-commerce sector. Multiple platforms, such as LinkedIn and Behance, were utilized to reach out to these experts and invite them to participate in the study. The selection process aimed to ensure a balanced representation of experts from different regions, considering factors such as cultural diversity and market characteristics. Ultimately, the selection resulted in a diverse group of participants, each offering unique insights into the global perspective of UI and UX in the e-commerce industry. Details of the fifteen experts, including their professional backgrounds and affiliations, can be found in Appendix 1. Despite reaching out to fifteen prospective respondents, only two Asian experts and one Western expert responded to the interview request, providing unique perspectives on UI and UX design in e-commerce applications, contributing to a comprehensive understanding of the global context. Appendix 2 provides a breakdown of the respondents' demographic information.

Online interviews were chosen as the research method for their cost-effectiveness and convenience, especially during the COVID-19 pandemic, which allowed the respondents to participate at their convenience without geographical limitations. As highlighted by Sayrs (1998) in qualitative methodology, online interviews are an efficient technique for collecting rich, detailed data on the experiences, opinions, and beliefs of respondents. Online interviews were conducted with the selected UI and UX experts using Google Forms. Google Forms provided a user-friendly and efficient platform for constructing personalised questionnaires tailored to the research objectives. Ten questions were designed under Appendix 3 to cover various aspects, including the understanding of UI and UX, evaluation of UI and UX design in Shopee and Amazon, key components of UI and UX design for e-commerce applications, challenges in designing such applications, and recommendations for UI and UX designers.

Findings and Discussion

The findings from online interviews data (Appendix 4) with UI and UX experts representing global perspectives shed light on the challenges of designing user-friendly UI and UX for ecommerce applications in various regions. These experts, including representatives from Asia and Western country, provided valuable perspectives on:

UI and UX Challenges and Approaches in E-Commerce Applications — The findings highlight the challenges in designing user-friendly interfaces that cater to diverse cultural contexts and different user demographics. Understanding the target audience and market becomes essential, as Shopee, often considered a "mega" application, underscores the need to cater to specific user needs and preferences. For instance, Amazon's interface is tailored to the Western market, while Shopee's interface caters to Asian user preferences and requirements. Also, Muslim et al. (2019) highlight the statement that incorporating regional cultural values and norms into an application enhances its effectiveness, efficiency, and user satisfaction. By considering cultural and contextual elements, designers can create more relevant and engaging experiences. Challenges in the design process include meeting stakeholder expectations, aligning with user needs, and adhering to branding guidelines. To overcome these challenges, essential steps include conducting user research to understand the target audience's needs, preferences, and behaviors, performing competitor analysis to identify areas for improvement and gain a competitive edge, and engaging in effective communication with stakeholders to align design with their expectations and requirements. Additionally, ensuring user goals are met and providing seamless experiences are key considerations in UI and UX design. User acceptance testing (UAT) allows designers to validate the usability of their applications and make necessary improvements. Focusing on minimum viable products (MVP) and minimum lovable products (MLP) helps in prioritizing key features and delivering a satisfying user experience.

Key Aspects of UI and UX Design in E-Commerce Applications — Consistency in branding, including logo, colour scheme, typography, and buttons, is essential for preserving brand identity. Research by Huang and Wang (2022) and Muqoddas et al. (2020) supports the significance of incorporating compelling visual components, such as product visuals, videos, and reviews, to enhance user engagement and increase conversions. Therefore, it is crucial for UI and UX developers and designers to focus on main components such as registration forms, search bars, product listings, cart and checkout pages, and payment and order pages, while also ensuring a clean and minimal UI design with ample white space and an effective user journey flow to create a user-friendly look and feel. To clarify, it is important to note that there are criteria to measure the success of the UI and UX of an e-commerce application but user satisfaction and experiences are the primary indicators. Therefore, user research and competitor analysis are instrumental in understanding user needs and preferences and gaining a competitive advantage. Overall, these findings provide comprehensive insights into the challenges and approaches in designing user-friendly UI and UX for e-commerce applications across different regions. They serve as a guide for designers in creating effective and user-centric platforms that cater to the diverse needs and preferences of users worldwide.

Conclusion

This article concludes that achieving great UI and UX design in an e-commerce application is not solely determined by specific criteria or preferences. There are no universal criteria for determining good or bad UI and UX design; rather, effectiveness hinges on whether the application drives sales and resonates with targeted customers. Designing user-friendly interfaces that cater to diverse cultural contexts and demographics is crucial for driving engagement. Understanding the target audience, market, and incorporating cultural elements are key. User research, competitor analysis, and effective communication are vital for overcoming design challenges and delivering a satisfying user experience. Consistency in branding and focusing on key UI/UX components are essential for creating engaging e-commerce applications.

While the study provides valuable insights, it is important to acknowledge its limitations. The findings may not be universally applicable, as the research focused on a small sample size and potential biases associated with expert opinions. Additionally, limitations in accessing sufficient secondary data may have impacted the depth of supporting information. Overall, this study serves as a foundation for future research and practical

improvements in e-commerce UI and UX design. It underscores the importance of considering diverse user needs, cultural contexts, and market characteristics.

In conclusion, designing user-friendly UI and UX for e-commerce applications requires a deep understanding of the target audience, cultural contexts, and market dynamics. It demands a holistic approach that encompasses user research, competitor analysis, effective communication, and adherence to branding guidelines. By prioritising user needs, incorporating compelling visual components, and focusing on key components of UI and UX design, businesses can create engaging and user-centric platforms. The recommendations provided by the experts emphasise the critical role of research in the UI and UX design industry. Whether one is a newbie or an experienced designer, incorporating research into the design process is crucial for delivering impactful user experiences. Despite insights gained, further research is needed to explore additional global perspectives and overcome limitations. Through continuous improved based on user feedback and industry best practices, businesses can optimise user satisfaction in the competitive e-commerce landscape.

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Appendices

	Name (Alias)	Region	Position	Connection	Responded
1.	N. Ali	Banyumas, Indonesia	UI and UX designer from Vektora Studio	Dribbble	Declined
2.	H. Fatteh	Gafsa, Tunisia	Freelance UI and UX designer	LinkedIn	Declined
3.	S. Sowunmi	Lagos State, Nigeria	UI and UX Designer	LinkedIn	Accepted
4.	F. Farhin	Dhaka, Bangladesh	Professional Web, Application UI and UX designer and Children's Book Illustrator	LinkedIn	Declined
5.	Z. Shawn	New york, USA	UI and UX designer, Founder of uifry.com (UI and UX design agency)	LinkedIn	Declined
6.	P. Shrestha	Petaling Jaya, Malaysia	UI and UX designer, product designer, UX research, Entrepreneur	LinkedIn	Declined
7.	A. Basnyat	Kathmandu, Bāgmatī, Nepal	Principal Product Designer at UXCam, Design Mentor, Design Thinking Coach	LinkedIn	Declined
8.	MH. Hanif	Cyberjaya, Malaysia	Educator, Mentor, Software Engineer, Full Stack Web Developer, Web designer	LinkedIn	Accepted
9.	A. Zykin	California, United State	CEO at clay.global, a UI and UX design agency in San Francisco.	LinkedIn	Declined
10.	V. Sharma	Rajasthan, India	New experienced UI and UX designer	LinkedIn	Declined
11.	N. Ong	Singapore	Freelance UI and UX designer, UI and UX intern in Shopee Singapore	LinkedIn	Accepted
12.	Stella H.	Seri Kembangan, Malaysia	Senior UI and UX design in Davos Asia	LinkedIn	Declined
13.	M. Bano	Punjab, Pakistan	Freelance UI and UX designer, Shopify Store Designer, Amazon PPC	LinkedIn	Declined
14.	AZ. Ramli	Petaling Jaya,Malaysia	UI and UX designer (self-taught), ex-Shopee senior associate and operators.	LinkedIn	Declined
15.	AM. Ali	Malaysia	Head of UX/UI designer at admiral.digital	LinkedIn	Declined

Appendix 1. Online Interview Target Expert List

Respondent(s)	Origin	Current / Past Role in UI and UX industry
A	Cyberjaya, Malaysia	 Educator Mentor Software Engineer Full Stack Web Developer Designer at Catamyst
В	Singapore	UI and UX Intern designer in Shopee Singapore
С	Lagos State, Nigeria	UI and UX designer

Appendix 2. Online Interview Respondents Demographics

Theme(s)	Question(s)			
Definition and understanding of UI and UX	Q1: Based on your experience, how do you define User Interface (UI) and User Experience (UX) ?			
Evaluation of UI and UX Design in	Q2: Based on your perspective, what are your thoughts on the UI and UX design of these apps; Shopee and Amazon? Do they achieve the rules of UI and UX design?			
Shopee and Amazon	Q3: I have noticed that many consumers have expressed dissatisfaction with the UI and UX design of Shopee applications. For instance, the user complained, Shopee is regarded as a "Chinese style" application, which packs everything into one app to create a mega app. What do you think about these claims? Do you agree?			
Kou Components	Q4: In your experience, what are the main User Interface (UI) components to focus on when designing an e-commerce application?			
Key Components of UI and UX Design for Online E-commerce Applications	Q5: In your experience, what are the main User Experience (UX) components to focus on when designing an online e-commerce application			
	Q6: How would you describe an effective look and feel of an e-commerce application that is user-friendly?			
Challenges and Approaches in Designing	Q7: What do you find most challenging when designing an e-commerce application?			
Online E-commerce Applications	Q8: Based on question 7, how would you approach the challenges?			
Recommendations and Suggestions for UI and UX Designers in designing an	Q9: Based on your experience, what advice would you like to provide to a newbie UI and UX designer while developing an online e-commerce application?			
Online E-commerce Application	Q10: Additional advice or suggestions (optional)			

Appendix 3. Online interview Questions

1. Based on your experience, how do you define User Interface (UI) and User Experience (UX)? 3 responses

User interface (UI) design is the process and result of planning and building interfaces in software that focus on appearance and styles. The purpose of UI design is to make the website or application easy to use and pleasing to the eyes. It can consists of buttons, icons, layout, color, typography, and many more.

User experience (UX) design is the experience a person feels when interacting with the website. UX design's purpose is to provide great and relevant experiences to users. It involves aspects of branding, usability, and function. UX in real life actually includes UI, because has a bigger portion than just the visual. It handles the flow of using the UI.

Here's my full breakdown: https://catamystlearn.notion.site/UI-and-UX-differences-473c061f052b4b028eb3c5b308f1d464

UX design is all about identifying and solving user problems.

UI design refers to the design of visual elements on interactive interfaces/products.

UI design is basically what we see in a product; starting with the colours, text, layout, buttons, and every element seen in the product. UX, on the other hand, describes how these various elements are combined to perform certain tasks for the user in a way that is easy for the user to use, this is where usability and accessibility come in one of the most important parts of UX design. A bad UI will make the UX poor and it goes around also!!! You must be able to create a balance between UI and UX to create a successful product and always remember to design for your user.

Appendix 4. Online Interview Data, Question 1

2. Based on your perspective, what are your thoughts on the UI/UX design of these apps; **Shopee** and Amazon? Do they achieve the rules of UI/UX design?

3 responses

Their UI and UX very confusing. Although for most customers, it's fine as long as they can the best products they need. I might say about 50%: 50% for them to achieve the rules of UI and UX design. They sometimes implement dark patterns to bait users to do something they might not want. They had some good things too for providing the information such as anchoring, focusing the attention, social proof, and product recommendations. Personally I mostly buy products through Tokopedia and Bukalapak (Indonesian e-commerce).

Here's someone full breakdown on Amazon's purchase experience: https://growth.design/case-studies/amazon-purchase-ux

The main purpose of UI/UX design is for the users to intuitively achieve their goal on the platform.

For e-commerce, assuming the user's goal is to purchase an item, the user's experience from the start of the user journey to end has to be good. If the user manages to achieve their goal in a seamless way, the UI/UX design would have achieve its purpose.

I haven't made use of any of these apps before can't say much about them but I believe if it's working for them and their users then it is good. LinkedIn is still one of the best apps I've used both the web and mobile app experiences are great, I'll give it 9/10.

Appendix 5. Online Interview Data, Question 2

3. I have noticed that many consumers have expressed dissatisfaction with the UI/UX design of Shopee applications. For instance, the user complained, Shopee is regarded as a "Chinese style" application, which packs everything into one app to create a mega app. What do you think about these claims? Do you agree?

3 responses

Yes I agree. Too many things which can lead to confusion. Furthermore, the app itself frequently lags and very slow to load.

It's true. If we look at Shopify/Amazon and other western eCommerce websites vs Shopee and other Chinese eCommerce websites, the style is distinctly different. But this is where user research and understanding your target audience is important. If the Chinese users like and are used to the Shopee interface, then the UI/UX would have achieved its goal.

Sometimes it may not even be about race/nationality. It could be about socioeconomic status (SES) and how people from lower SES might prefer apps that give off a bazaar marketplace vibe.

I believe in niching down. If an app is created for an e-commerce purpose then the UI and UX design should evolve around that adding other things to it, it's very unnecessary and in return will give bad user feedback.

Appendix 4 Online Interview Data, Question 3

4. In your experience, what are the main **User Interface (UI)** components to focus on when designing an e-commerce application?

3 responses

Registration or authentication process form, search products, list of all products, product page (including the name, description, variant, quantity to buy, add to cart button), cart page, checkout page, payment page, order page.

How you display the products is the main thing, and all the elements relating to searching for the item. Lists, branding, etc.

For me all the UI components are to be focused on. Be sure to remove any unnecessary UI components from the product as this might affect the overall UI of the product. Be intentional about the design.

Appendix 4 Online Interview Data, Question 4

5. In your experience, what are the main User Experience (UX) components to focus on when designing an e-commerce application?
3 responses

Mainly the whole buying experience. Visitor can authenticate as a user. Can search or select from one of many products. Check the product information. Change the quantity to buy. Add the products to the cart. Make sure in the cart page. Checkout to also pay for the products, if not setup users might need to fill out the address. After payment then the users can see the order status. Finally after the order is received, the order status is updated and user can also leave a review.

User research is key, as well as competitor research.

- 1.) Products accessibility
- 2.) Products search
- 3.) Payment process
- 4.) Cart management

Appendix 4 Online Interview Data, Question 5

6. How would you describe an effective look and feel of an e-commerce application that is user-friendly?

3 responses

Some good examples are Apple store, Google store, and Shopify websites. Most of them are easy in the eyes, have a good design taste, smooth to navigate and easy to use.

One that the users know how to navigate easily in order to search for what they want. And thereafter, a seamless and convenient checkout process.

A user-friendly e-commerce application should have a simple and minimal UI design with product search and product accessibility prioritized. Products should be organized in categories with a simple UI, the home screen should not be jampacked with product sales but be designed with the most important need of the user. Always remember to design for your user.

Appendix 4 Online Interview Data, Question 6

7. What do you find most challenging when designing an online e-commerce application? 3 responses

The expectation of all the stakeholders from the ecommerce itself, the business owner, product manager, etc. Also the real users and customers who actually use the ecommerce app.

Understanding the users and ensuring that the branding (UI) of the application matches the products being sold.

E.g. If you're selling children toys, you wouldn't want the user interface to be too dark and overly professional. You would have to design elements that allow the seller to customise the page to fit their own branding.

So designing with this is mind is one of the challenges. But another major challenge is understanding the brand guidelines and working within those limitations.

Shopee is a big company. This means designs have to be consistent throughout the whole app, and throughout all the teams working on the screens on the Shopee application. We cannot just design however we want, we have a design system to follow.

So designing something that looks aesthetic to the general public, while still following the design guidelines + system, is a big challenge for UI/UX designers in big e-commerce companies.

The most challenging part when designing a product is identifying a problem. Making research on what others are doing wrong, what they're missing out. Trying to be sure your design will make an impact. To me that's the challenging aspect of designing an e-commerce application.

I believe when the problem is identified, then the rest will be built on the solution.

Appendix 4 Online Interview Data, Question 7

8. Based on question 7, how would you approach the challenges?

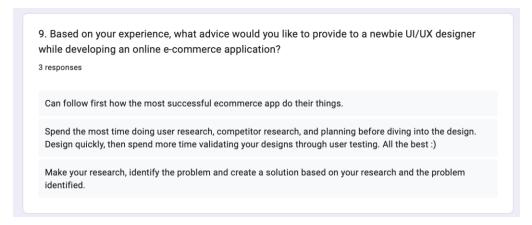
3 responses

By constantly communicating with all people. User Acceptance Testing (UAT) is one of the most crucial aspect. Along with aiming for MVP (Minimum Viable Product) and MLP (Minimum Lovable Product).

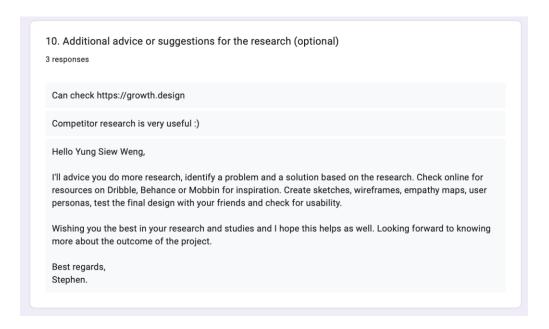
Advocate why changes to the design is necessary to keep the company moving forward, to stay modern. Normally done through competitor analysis & research + communication with project managers.

Finding a reasonable solution to the problem identified and then designing the UX and the UI based on the solution as this will make your product different from others. UX/UI is basically about solving user problems.

Appendix 4 Online Interview Data, Question 8



Appendix 4 Online Interview Data, Question 9



Appendix 4 Online Interview Data, Question 10