慶應義塾大学学術情報リポジトリ
Keio Associated Repository of Academic resouces

Title	Balancing cultural elements in global brand communication with the use of AI visuals
Sub Title	
Author	楊, 娜涵(Yang, Nahan) 陳, 敦雅(Chen, Dunya Donna)
Publisher	慶應義塾大学大学院メディアデザイン研究科
Publication year	2025
Jtitle	
JaLC DOI	
Abstract	
Notes	修士学位論文. 2025年度メディアデザイン学 第1211号
Genre	Thesis or Dissertation
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40001001-00002025-1211

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Master's Thesis
Academic Year 2025

Balancing Cultural Elements in Global Brand Communication With the Use of AI Visuals



Keio University
Graduate School of Media Design

Nahan Yang

A Master's Thesis
submitted to Keio University Graduate School of Media Design
in partial fulfillment of the requirements for the degree of
Master of Media Design

Nahan Yang

Master's Thesis Advisory Committee:

Associate Professor Dunya Donna Chen	(Main Research Supervisor)
Associate Professor Junichi Yamaoka	(Sub Research Supervisor)

Master's Thesis Review Committee:

Associate Professor Dunya Donna Chen	(Chair)
Associate Professor Junichi Yamaoka	(Co-Reviewer)
Professor Kai Kunze	(Co-Reviewer)

Abstract of Master's Thesis of Academic Year 2025

Balancing Cultural Elements in Global Brand Communication With the Use of AI Visuals

Category: Design / Communication

Summary

This thesis investigates how AI-generated visuals incorporating Taiwanese cultural elements can enhance brand engagement in a Japanese market context. Through a four-stage design-based research process—including offline testing, co-creation, comparative evaluation, and a real-world Instagram Story experiment—the study explores the effectiveness of cross-cultural visual communication using MidJourney. Results from performance metrics and user feedback indicate that culturally rich, AI-generated content can outperform traditional visuals in capturing attention and encouraging interaction. The project offers a reproducible framework for global brands seeking to communicate authentically across cultural boundaries using AI-assisted design.

Keywords:

brand communication, artificial intelligence, localization and standardization, cultural balance, design thinking

Keio University Graduate School of Media Design

Nahan Yang

Contents

Acknowledgements **vi**

1 Introduction **1**
1.1. Role of Artificial Intelligence in Communication 1
1.1.1 Benefits 1
1.1.2 Limitations 2
1.2. Usage of AI by Companies in Marketing Area 3

2 Related Works **7**
2.1. Localization and Standardization for Global Brands 7
2.1.1 Overview 7
2.1.2 Advantages and Drawbacks of Standardization 8
2.1.3 Advantages and Drawbacks of Localization 9
2.2. Importances and Challenges of Culture Balance in Brand Communication 10

3 Design **12**
3.1. Research Objectives and Hypothesis 12
3.2. Experimental Overview 14
3.2.1 Multi-Stage Experimental Flow 14
3.2.2 Tools for AI-Based Content Generation 15
3.3. Stimuli Design: AI-Generated Visual Content 16
3.3.1 Cultural Elements and Visual Strategy 16
3.3.2 Branding and Product Context 17
3.4. Design Thinking Framework and Experimental Design 17
3.5. Experimental Stages and User-Centered Testing 19
3.5.1 Test 1: Visual Engagement at an Exhibition Event 19

3.5.2 Test 2: Co-Creation with Graduate Students Using AI Tools 20
3.5.3 Test 3: Comparative Engagement Perception Among Graduate Students 22
3.5.4 Feedback and Strategic Insights from Tests 1–3 24
3.6. Test 4: Instagram Story-Based Online Experiment (Final Evaluation) 25
3.6.1 Platform Rationale: Why Instagram Stories? 25
3.6.2 Test Structure and Posting Plan 26
3.6.3 Engagement Data Collection 28

4 Results and Application 30
4.1. Results Analysis 30
4.1.1 Instagram Story Performance Analysis 30
4.1.2 Post-Viewing Engagement Questionnaire 31
4.1.3 Reflections on Client-Side Adjustments and Cultural Sensitivity 33
4.2. Application 34
4.2.1 Designed Artifact and User Experience 34
4.2.2 Reproducibility of the Design Process 35
4.2.3 Validation of the Experimental Design 36
4.2.4 Extensibility and Broader Implications 37

5 Discussion and Future Works 39
5.1. Interpretation and Implications 39
5.2. Limitations and Challenges 40
5.3. Directions of Future Studies 41
5.4. Conclusion 42

References 43

Appendices 54
A. Screenshots of the Online Guided Framework: Full Version 54

List of Figures

3.1 Five Steps of a Design Thinking Framework 18
3.2 Set of Mini card Designs 20
3.3 Example Pictures from the Event 21
3.4 Examples of the Online Guided Framework 22
3.5 Comparison of Image A and B 24
3.6 Instagram Story Posts of Taiwanese Vintage Print Art Style . . . 26
3.7 Instagram Story Posts of Ink Wash Painting Style 27
3.8 Instagram Story Posts of Paper Cutting Style 27
3.9 Instagram Story Posts of Traditional Blue-and-white Porcelain Style 28

List of Tables

4.1 Instagram Story Performance by Visual Style 31
4.2 Post-viewing engagement questionnaire results across cognitive, emotional, and behavioral dimensions (n=10). 32

Acknowledgements

I would like to express my deepest gratitude to my main research supervisor, Professor Dunya Donna Chen, for her unwavering guidance, encouragement, and care throughout this journey. Her insightful feedback and kind support—both academically and personally—have been invaluable in shaping this thesis and my growth as a researcher.

My sincere thanks also go to my sub research supervisor, Professor Junichi Yamaoka, for his thoughtful advice and constructive input. I am equally grateful to all the faculty members at Keio University's Graduate School of Media Design, whose teaching and support have enriched my academic development.

I would like to extend special thanks to Carpenter, my industry collaborator, for generously providing the products used in the experiments and for always offering patient, thoughtful feedback. Their support made it possible to conduct the study in a real-world branding context.

Lastly, heartfelt appreciation goes to my friends, whose constant encouragement and emotional support helped me stay grounded and motivated throughout this process.

Chapter 1
Introduction

1.1. Role of Artificial Intelligence in Communication

1.1.1 Benefits

In 2023, Artificial Intelligence (AI) is already widely used by more than 50% of people in their daily life, and the global AI market has been stated to become an economic powerhouse, worthing around 450 billion USD dollar [1]. Even though many people, especially the younger generation, may not fully aware of their daily use of AI, AI technology is actually implanted in numerous fields, such as customer service, music playlist recommendation, email sorting, healthcare, online shopping, or home devices [2] [3]. Regarding communication, the influence of AI can be fundamental in the fostering of relationships between individuals or organizations. One of the biggest advantages AI has regarding communication is its ability to analyze large amounts of data and generate specific content for individuals. Communication strategies are tailored at the most sophisticated levels by AI technology using machine learning and natural language processing, facilitating greater and more enjoyable interactions in various industries. It is particularly clear with AI-powered tools that assist in content creation from copywriting and designing to video production, helping businesses improve their outreach and streamline their communication processes [4]. Furthermore, AI serves a crucial part in predictive analytics by anticipating future needs through the analysis of consumer behavior and trends. Hence, this enables organizations to communicate with their customers more efficiently and cultivate relationships with them [5] [6]. In the Customer relationship management system, AI technology can enhance the overall efficiency by automation, reducing human intervention in repetitive tasks

and allowing faster processes. It can also improve customer service by shortening response times and increasing accuracy, while assisting decision-making through data analysis and offering important insights for better business decisions [7] . Overall, AI is significantly useful in terms of improving customer engagement, operational efficiency, strategic decision-making, as well the productivity of work [8].

Moreover, in the area of psychology, AI can be applied to assist individual's psychological well-being by communicating with them. For instance, Park and Kim's study [9] targeting on older adults found that, after the frequent communication with AI speaker, the level of loneliness of these older adults who live alone decreased significantly. Since AI speaker speaks in a human-like characteristic, it can promote the formation of a social network. In conclusion, the effectiveness of AI's role in communication has been proven in various fields. For researchers, AI can offer benefits like accelerating the research process, improving the effectiveness of studies, producing ground-breaking discoveries, simplifying data processing, improving patient involvement, maximising treatment planning, and aiding in the development of new drugs [10]. For government workers, AI can help them to reduce language barriers and service delays while enhancing productivity, thereby acting as a necessary irreplaceable role in the government service communication system [11]. In summary, the diverse uses of AI in communication offer substantial gains in customer engagement, psychological health, and public service in addition to increasing efficiency and personalisation across multiple industries, making it an essential tool for communication.

1.1.2 Limitations

However, AI-powered communication also has limitations. For instance, one such limitation is that automated content creation and interaction with chatbots requires historical or legacy data, which can be very biased and exclusionary and lead to reinforcing of stereotypes [12]. There is also the paradox that the use of AI optimizes the effectiveness and efficiency of communication, yet, at the same time, greatly removes the emotional nuances found in face-to-face interactions. Many chatbots and other AI solutions seem to answer basic queries adequately, but most do not possess the necessary emotional intelligence for traumatic or more nuanced interactions [13]. While AI tools can accelerate the working speed

and productivity of researchers and employees, they can also bring challenges in order of data quality, interpretation of complex models, ethical considerations, and the require for specific skills [10]. When it comes to online self-presentation, the perceived AI use can affect people' s trustworthiness to other' s online profile. This phenomenon is identified as the "Replicant Effect", where individuals tend to mistrust online profile that are believed to be created by AI, but this effect appears only when AI and human-written profiles are mixed together [14]. Hohenstein et al. [15] suggest that AI systems can really improve how quickly we communicate and encourage the use of more positive emotional language, which can help strengthen our relationships. Nevertheless, there is often a tendency to judge people more harshly if individuals suspect they are using an algorithmic response. This indicates that while AI can make communication more effective and efficient, its advantages might be overshadowed by the negative social perceptions that come with its use. Similarly, Thippanna et al. [16] also explore the ups and downs of using AI technologies. They highlight several benefits, including better operational efficiency, improved data analysis, personalized experiences, predictive analytics, round-the-clock availability, and increased safety in medical applications. On the flip side, they point out some drawbacks that emphasize the need for careful use and governance of AI technology, such as job losses, biased decision-making, privacy concerns, potential for misuse, ethical dilemmas, high implementation costs, and an overdependence on technology.

Despite these challenges, however, as AI continues to grow, it has been predicted that the role of AI in communication will become more balanced, with enhancing efficiency being weighed against preserving human authenticity in interlocutions [17]. This equilibrium shall take away some of the negative social perceptions and handicaps currently faced by AI in communication, hence promoting a better integration and use of AI through the future.

1.2. Usage of AI by Companies in Marketing Area

In recent years, AI has made significant strides in enhancing digital marketing efforts. As highlighted by the U.S. Government Accountability Office [18], a variety of solutions powered by AI tools have emerged to boost digital marketing initia-

tives. Content creation platforms like Copy.ai and Jasper are helping marketers craft engaging text for product descriptions, blogs, and social media posts with ease. Even those without extensive design skills can create eye-catching images and ads using visual design tools such as Canva and Adobe Firefly. Predictive analytics tools like HubSpot and Salesforce Einstein leverage AI to anticipate trends and analyze customer behavior, allowing for more targeted marketing campaigns. Moreover, AI-driven chatbots and virtual assistants are elevating customer service and engagement by offering real-time, personalized recommendations. These technologies are becoming increasingly vital in the digital marketing landscape, helping businesses remain competitive and connect with customers more effectively. The global market for AI in marketing was valued at USD 20,447.1 million in 2024 and is projected to grow at a compound annual growth rate (CAGR) of 25.0% from 2025 to 2030. The main drivers of this AI growth in the marketing industry are indicated to be the increasing use of machine learning and AI to provide personalised customer experiences, greater acceptance of social networking sites, as well as the growth of online trading [19]. AI has really changed the game in digital marketing, allowing businesses to connect with customers in ways that feel more personal and engaging. By using AI-driven personalization, companies tap into advanced data analytics, machine learning, and predictive modeling to understand consumer behavior, anticipate preferences, and create customized marketing strategies. This not only improves the customer experience but also builds stronger brand loyalty. As a result, AI has become an essential tool in transforming the digital marketing landscape, equipping companies with innovative technologies to reach their audiences more effectively [4].

AI-generated content, especially in the form of graphics and advertisements, has really taken off across various social media platforms. By 2025, it is expected that AI-generated material will be a key player in digital marketing, with sites like Instagram experiencing a surge in AI-created images and ads [20]. This shift underscores our growing dependence on artificial intelligence to produce engaging and culturally relevant content that grabs the attention of audiences worldwide. More and more users are turning to AI tools to craft visually stunning material, which is fueling the widespread adoption of AI-generated visuals on social media. Consequently, marketers are leveraging AI capabilities to develop content that

resonates with diverse cultural backgrounds, ultimately enhancing global marketing strategies [21]. While the advancement of technology is certainly a driving force behind the rising trend of AI-generated content among marketers, there are several other factors at play. For instance, previous research has shown that people often view AI-generated content in a similar light to content created by humans, indicating that individuals struggle to accurately distinguish between the two [22] [23]. Despite worries about AI potentially leading to job losses or a decline in cognitive skills, these studies generally found that AI-generated content is seen as credible and high-quality, making it a viable option for brand marketing without significantly affecting consumer perceptions.

It has been shown that content created by AI can really influence how customers see brands and help build their loyalty. As Ahmed et al. [24] point out, when AI personalizes experiences, it boosts consumer engagement and fosters lasting loyalty to brands. This highlights AI's ability to transform consumer behavior, enhance client relationships, and give businesses a leg up in the competitive market. This finding aligns with other studies on AI's role in content creation, which have indicated that, much like content made by humans, AI-generated material can effectively boost customer engagement by offering a tailored experience [25] . While AI tools bring advantages like increased productivity and cost savings, research also emphasizes the importance of emotional connection and personalization to ensure high-quality content. Participants in these studies noted that AI can enhance engagement when it is paired with relevant and personalized material, but they also expressed concerns about the emotional intelligence that AI-generated content often lacks. Despite the benefits, there are significant challenges related to AI-generated content, especially regarding intellectual property. Recent studies have found that using AI in content creation raises questions about copyright infringement since AI systems do not hold rights to the content they generate. This leads to issues of attribution and liability in marketing contexts. Alongside the ethical dilemmas surrounding the authorship of AI-generated works, organizations must also navigate legal frameworks to ensure they comply with copyright laws and fair use regulations, particularly in regions like the European Union and the United States [26]. Thus, while AI can alter marketing strategies and improve consumer interactions, organizations must also consider the legal and ethical con-

sequences in order to avoid any copyright violations and maintain compliance with intellectual property regulations.

Chapter 2
Related Works

2.1. Localization and Standardization for Global Brands

2.1.1 Overview

Standardization and localization are two opposing strategic approaches in the context of worldwide marketing. The extension and implementation of a consistent marketing strategy or product standards, both material and immaterial, across several markets is usually referred to as standardization [27] [28]. By providing uniform goods and communications throughout the world, it places an emphasis on efficiency, consistency, and economies of scale. On the other hand, localization means adjusting marketing tactics to each target market's unique cultural, economic, and regulatory circumstances. This strategy includes both customization—deliberate changes to better suit local customer preferences and cultural expectations—and adaptation—mandatory alterations necessitated by local environmental conditions [27]. The strategic tension that businesses must manage while expanding globally is highlighted by the fact that localization addresses the need to be sensitive to local variety, whilst standardization aims for worldwide integration. Based on the definition of standardization as the application of a unified marketing program or product attributes across international markets [27] [28], supporters of this approach argue that it allows businesses to take advantage of the increasing convergence of global consumer preferences and the homogenization of market segments [29] [30]. Specifically, standardization becomes a strategic instrument for guaranteeing uniformity, effectiveness, and brand coherence globally as communication technology, global media, and digital platforms increasingly overcome geographical distances.

2.1.2 Advantages and Drawbacks of Standardization

One of the most widely cited advantages of standardization is the economy of scale. Businesses can save costs through mass production and centralized marketing efforts by creating and promoting a standardized product, which will increase profit margins [29] [31]. Additionally, an identifiable worldwide brand image is reinforced by a consistent marketing message, which helps to increase brand equity and facilitate cross-market awareness [32]. Businesses like Apple, whose iPhones are marketed globally with a standardized design, user experience, and messaging, projecting a unified brand identity worldwide, have made this especially clear. Besides, operational control and coordination are another important advantage. By facilitating centralized decision-making, standardization helps businesses streamline branding guidelines, promotional efforts, and quality standards [33] [34]. In addition, this degree of consistency promotes information transfer, enabling businesses to more successfully use learning effects and duplicate successful methods in many markets [35]. To create internal efficiencies and external brand uniformity, Ford's "One Ford Plan" is a prime example of the global standardization of product platforms and branding activities.

However, despite these advantages, standardization has drawbacks as well. For example, Its inflexibility in meeting the demands of the local market is a significant disadvantage. A standardized strategy may be inefficient or even harmful due to cultural variances, economic inequities, and legal regulations [36] [37]. Cultural differences in culinary preferences, for instance, make standardized food products —like Starbucks' original offerings—less desirable in areas with strong local tastes, eventually requiring adaption. Furthermore, standardization can hinder regional teams' creativity, result in over- or under-design of products in relation to local needs, and make it more difficult to respond to consumer behaviour and market-specific trends [38] [39]. The application of uniform techniques may be further limited by regulatory and infrastructural variances, such as local advertising rules or digital accessibility, as seen in the disparities in television and internet infrastructures across emerging economies [33]. In conclusion, standardization must be carefully weighed against contextual market variables that could compromise its efficacy, even while it offers obvious benefits in terms of cost effectiveness, brand consistency, and internal coordination. Therefore, the degree of cross-market simi-

larity and the firm's strategic aims must be taken into consideration when deciding whether to standardize.

2.1.3 Advantages and Drawbacks of Localization

Although standardization techniques have many advantages to offer in terms of brand consistency and operational efficiency, they commonly struggle to handle the diversity of international markets. In contrast, localization—which is the process of modifying marketing tactics to satisfy the unique cultural, legal, and consumer requirements of other markets—emerges as a crucial substitute [27]. The localization method recognizes that, especially for global companies operating across culturally varied locations, a certain amount of strategic flexibility is required due to differences in language, traditions, purchasing behaviour, and regulatory settings [30]. One of the key benefits of localization is its potential to increase cultural relevance and customer involvement. Firms can increase emotional resonance and trust with customers by aligning their product offerings and communications with local preferences. McDonald's, for example, uses this method efficiently by customizing its menu choices to accommodate to local tastes (e.g., Teriyaki Burger in Japan, McAloo Tikki in India) [37]. Similarly, Coca-Cola's "Share a Coke" campaign, which put common local names on bottles, highlighted the effectiveness of culturally appropriate information in enhancing consumer contact and brand attachment [40]. Additionally, localization can help businesses better navigate a variety of legal settings and makes it easier to adhere to local legislation [36]. Differentiating products to match regional values and consumption habits is another way to gain a competitive edge. This is a crucial tactic in markets with established local competitors or unique consumer cultures [41].

Nevertheless. localization does have some disadvantages. For instance, the increasing expense and complexity of operations can be a significant drawback. Profit margins may be lowered and the advantages of economies of scale are limited by the need to create market-specific goods, packaging, promotion, and distribution methods [42] . Moreover, brand fragmentation brought on by over-localization can erode a consistent worldwide identity and reduce cross-market brand equity [39]. Finally, localized models limit chances to use organisational learning across borders by making coordination and information transfer across

subsidiaries more difficult [34]. Therefore, when combined, these elements show how businesses need to strategically balance global integration with cultural response. In many situations, achieving a successful global brand requires finding the right balance between localization and standardization, a hybrid approach commonly referred to as "glocalization" [43].

2.2. Importances and Challenges of Culture Balance in Brand Communication

As previously discussed, both standardization and localization strategies offer distinct advantages and drawbacks in international marketing. While localization enables cultural adaptation and greater customer interaction, standardization can foster uniformity and cost effectiveness across markets. These two approaches, however, are frequently situated at opposite extremities of a strategic continuum. The main problem for multinational firms looking to communicate successfully in culturally varied countries is finding a balance between the two, not picking one over the other. In international brand communication, this strategic interaction—often referred to as cultural balance—has grown in significance [41] [44]. Culture balance is crucial because it can improve perceived authenticity, consumer trust, and brand resonance. Brands can develop deeper emotional bonds with their target customers by effectively fusing locally significant cultural manifestations with global brand principles. Zhou et al. [45]demonstrate that culturally engaged branding raises customers' willingness to spend more and greatly improves brand enriching benefits, especially in functional product categories. These results support the strategic importance of incorporating cultural components into communications, so long as they are relevant to the brand and appropriate for the setting.

However, there are several obstacles in the path of achieving cultural balance in communication. For example, the complexity of cross-cultural variations in language, norms, and symbolic meaning is one of the main problems. According to Allan [46], global brands often misunderstand culturally integrated messages when they fail to recognize tiny yet important differences between cultural codes. Furthermore, if brands extract and employ cultural components without the nec-

essary knowledge or sensitivity, they run the risk of cultural appropriation, which can result in negative consumer reactions and harm to their reputation [47]. Besides, the changing character of culture itself adds another level of complexity. Consumer cultures change as a result of generational changes, worldwide influences, and sociopolitical advancements [48] [49]. Because of this, brands must be culturally flexible, always observing cultural trends and modifying their communication tactics as necessary. Even well-meaning attempts at cultural integration or localization could easily become out of date or mismatched without this flexibility. In conclusion, striking a balance between culture and brand communication is both a strategic imperative and a practical difficulty. It necessitates a sophisticated strategy that combines cultural intelligence, sensitivity, and reactivity, allowing companies to maintain a consistent worldwide identity while establishing relevance and trust in a variety of markets.

Chapter 3
Design

3.1. Research Objectives and Hypothesis

This study examines how AI-generated brand graphics that contain cultural characteristics affect social media consumer engagement in the context of the growing global reliance on algorithmic content generation. This study builds on the theoretical conflict between localization and standardization in global brand communication by examining the complex problem of developing a visually balanced cultural approach. It seeks to ascertain whether the incorporation of visually significant cultural elements—either from the local target market or the brand's home country—affects the way people engage with branded content. This research is conducted in collaboration with Carpenter [50], a Taiwan-based lifestyle brand with an expanding presence in the Japanese market. In this study, it investigates how incorporating Taiwanese cultural characteristics into product graphics influenced by Japan can improve brand communication and consumer engagement instead of completely adjusting to local cultural standards. The study intends to investigate how audiences view and react to such cross-cultural visual strategies —balancing local aesthetic demands with home-country identification. Despite sharing East Asian cultural heritage, Taiwan and Japan have different symbolic systems, aesthetic tastes, and commercial sensitivities [51] [52] [53]. Investigating how AI-generated, culturally coded content might act as a link between home and host markets in global branding is made more significant by this cultural contrast.

Therefore, the hypothesis of this study is AI-generated images that integrate home-country (Taiwan) cultural visual elements into product-based branding will generate higher social media engagement than images that adopt only localized Japanese cultural aesthetics. Previous studies on brand authenticity, emotional

resonance, and cultural congruence in cross-cultural marketing are cited in this hypothesis [48] [54]. Additionally, it is consistent with dual-process theories in consumer psychology, such as the Elaboration Likelihood Model [55], which suggest that visual signals that are culturally known can trigger both schema-based elaborative processing (System 2) and intuitive, affect-driven reactions (System 1). This dual pathway implies that incorporating cultural features into AI-generated branded visuals may improve cognitive assessments of brand authenticity and relevance in addition to eliciting immediate emotional connection [56]. In terms of research significance, by experimentally investigating how cultural visual tactics mediate audience engagement in digital contexts, this work adds to the continuing scholarly discussions on cultural branding and AI-assisted content creation. By using AI-generated material as a new medium for cultural transmission, it theoretically expands on current paradigms of global brand communication. In practice, the results provide insight on how companies can deliberately balance cultural authenticity and local relevance in visual storytelling while also lowering production costs by utilizing generative tools. The study will use both behavioural and perceptual measures to evaluate customer engagement and perception. Instagram interaction rates (likes, shares, comments, and saves) and the amount of time spent on each image, as tracked by platform analytics, are used as behavioural indicators. It evaluates participant answers to post-viewing questionnaires that gauge perceived brand legitimacy, emotional appeal, and cultural resonance in order to determine perceptual indicators. By using this approach, the study hopes to shed light on how AI-generated cultural representations influence consumer attention and behaviour, providing a fresh viewpoint on how technology, culture, and branding interact in global marketplaces.

Moreover, this hypothesis is explored in the context of Instagram Stories, a short-lived, mobile-first format that focusses on ephemeral, visually rich, and engaging content. The decision to use Instagram Stories rather than Reels or regular posts is methodologically and logically reasonable. Real-time interaction features like polls, emoji sliders, and quiz stickers are made possible by stories and yield both quantitative engagement metrics and emotional responses from users [57] [58]. Stories, as opposed to permanent posts, evoke a feeling of urgency and personal significance, frequently promoting impulsive interaction that is more

reflective of emotional resonance than of thoughtful analysis. Additionally, Stories' immersive, full-screen display provides a clear visual environment that is ideal for evaluating the symbolic and aesthetic effects of culturally coded pictures free from comments, hashtags, and captions [59]. By focusing on Instagram Stories, this research connects the experimental environment with actual consumer media behaviour, particularly among younger East Asian populations since they demonstrate a significant preference for mobile-native, ephemeral content formats [60]. This platform selection assures ecological validity while also allowing for precise assessment of engagement outcomes including tap-through rates, sticker interactions, and time spent viewing.

3.2. Experimental Overview

3.2.1 Multi-Stage Experimental Flow

This study adopted a four-stage experimental design to iteratively develop, test, and validate AI-generated visual content that integrates Taiwanese cultural elements into branding strategies for the Japanese market. Each test built upon the insights of the previous, enabling a structured and reflexive research flow. For Test 1, it focused on initial visual impact through an offline exhibition and qualitative interviews. Nine AI-generated images were created based on the aesthetic principles of Kazimir Malevich and Suprematism, emphasizing minimalism, form reduction, and symbolic abstraction [61]. These works were displayed in an offline exhibition setting, enabling real-time observation of viewers' spontaneous reactions to the abstract content. Test 2 explored user interaction with AI tools. A customized web interface was developed to enable users with no prior AI experience to generate culturally expressive images through simplified text inputs. This platform served to democratize AI creativity and was tested among university students, providing insight into user behavior, tool accessibility, and co-creative workflows. In Test 3, it compared viewer engagement between AI-generated images and conventional photography. Participants rated both visual types across cognitive, emotional, and behavioral dimensions [62], offering clear evidence that culturally embedded AI visuals prompted stronger engagement. Test 4, the fi-

nal and most comprehensive phase, deployed a real Instagram Story campaign in collaboration with Carpenter. Twelve visuals across four cultural styles were published over four weeks, and engagement was assessed through Instagram analytics and a follow-up questionnaire. Together, these stages formed an iterative and scalable framework—moving from concept testing to public deployment—that validated the hypothesis and demonstrated the potential of culturally adaptive AI-generated images in brand communication.

3.2.2 Tools for AI-Based Content Generation

Two primary AI tools were employed across the experiment's different phases: MidJourney, for visual content generation, and ChatGPT, for textual prompt optimization and user interface integration. Within these two tools, MidJourney was selected as the primary image-generation tool in this study due to its high visual fidelity, intuitive interface, and strong community ecosystem, which collectively make it particularly accessible for non-expert users [63]. Its Discord-based workflow allows for efficient prompt iteration and creative exploration without requiring advanced technical skills. Moreover, recent comparative analyses indicate that MidJourney outperforms models like DALL·E 2 and Stable Diffusion in generating culturally nuanced and stylistically consistent images. Unlike more generalist AI models, MidJourney demonstrates a greater capacity to produce visuals that align with specific aesthetic and symbolic codes—an essential feature for studies examining cultural localization in brand communication [64]. ChatGPT was integrated into the custom web interface as a conversational layer to assist users in developing effective prompts. Its language comprehension capabilities let inexperienced users to articulate abstract cultural concepts, which were then translated into MidJourney-compatible instructions. The integration of visual and linguistic AI systems increased co-creative potential while lowering technical hurdles to access.Together, these tools allowed for both creativity and accessibility, aligning with the study's objective to evaluate culturally embedded content creation in realistic social media scenarios.

3.3. Stimuli Design: AI-Generated Visual Content

3.3.1 Cultural Elements and Visual Strategy

In the context of cross-cultural branding, this study explores the strategic application of AI-generated imagery to attain a visual balance between localization and brand standardization. The primary draw is the Taiwanese company Carpenter, whose goods have Japanese origins. This study investigates a hybrid strategy that incorporates distinctively Taiwanese cultural components into the visual design while maintaining the brand's established stylistic character, as opposed to completely localizing the product for the Japanese market.

This strategy was inspired by findings from an internal survey conducted among Japanese university students. The results indicated that participants tended to prefer products that maintained a clear and consistent brand identity (i.e., standardized designs), even over those modified to align more closely with local Japanese cultural themes. In light of this, the study proposes a design strategy that preserves the core identity of Carpenter, while using localized visual elements as subtle enhancements rather than replacements.

The visual stimuli were created using the AI image generation tool MidJourney. Each image featured Carpenter products integrated with Taiwanese cultural elements such as blue-and-white porcelain (青花瓷) patterns, traditional papercutting (剪紙) motifs, ink wash painting (水墨画) styles, and vintage Taiwanese print art (台湾復古版画). These culturally unique aesthetics were purposefully overlaid over or around Carpenter's Japanese-inspired product images. While the products themselves show a localization approach focused at the Japanese market, the incorporation of Taiwanese visual aspects restores the brand's original cultural identity, acting as a visual standardization layer. This hybrid design strategy aims to balance localization and standardization in cross-cultural communication, with the goal of increasing consumer engagement by presenting a brand that is both authentic and culturally relevant.

3.3.2 Branding and Product Context

Each visual stimulus included an actual Carpenter product with its distinguishable shape or design elements maintained so order to replicate genuine brand communication in a cross-cultural setting. By combining Taiwanese cultural aesthetics—blue-and-white porcelain, paper cutting, ink wash painting, and vintage print art—into scenes where the products were either the main visual objects or naturally incorporated into the background, MidJourney reimagined the images rather than merely superimposing cultural motifs. This strategy made guaranteed that the brand's essential identity and visual language stayed identifiable and consistent even when new cultural layers were added. Three Carpenter products with distinct Japanese-inspired visual characteristics were selected as the base. For each product, four culturally adapted versions were created—one for each of the four Taiwanese visual themes—resulting in a total of twelve AI-generated images (3 products $\times$ 4 visual styles). These images were carefully designed to maintain stylistic harmony, balancing the brand's standard visual identity with culturally localized enhancements. As the study focused on Instagram as the dissemination platform, all stimuli were designed in vertical (9:16) format optimized for Instagram Stories. Each image was paired with interactive features such as polls, quizzes, or emoji sliders to mimic common brand engagement strategies. Prior research has shown that interactive elements on Instagram Stories can significantly improve user engagement and perceived relevance [65] [66], providing empirical support for this design approach.

3.4. Design Thinking Framework and Experimental Design

To guide the development of the experimental design, this study adopted the five-step Design Thinking framework developed by the Hasso Plattner Institute of Design at Stanford University [67], which has also been used as a research procedure in previous academic studies [68]. The framework consists of five stages: Empathize, Define, Ideate, Prototype, and Test. The overall flow of this Design Thinking framework can be seen in the figure(Figure 3.1). These stages pro-

vided a human-centered structure for identifying user needs, generating creative solutions, and evaluating user experiences. In the Empathize stage, the study explored both the client company's branding goals and the cultural expectations of potential Japanese consumers through informal interviews and preliminary market observation. In the Define stage, the insights gathered were synthesized into the following design challenge: How can AI-generated visuals that embed Taiwanese cultural identity be presented in a way that engages Japanese audiences without requiring full localization? During the Ideate stage, multiple visual concepts were brainstormed based on different traditional art forms, such as blue-and-white porcelain, paper cutting, ink wash painting, and Taiwanese vintage print. These ideas were iteratively developed into initial MidJourney prompts and reviewed for coherence with both brand identity and intended user perceptions.

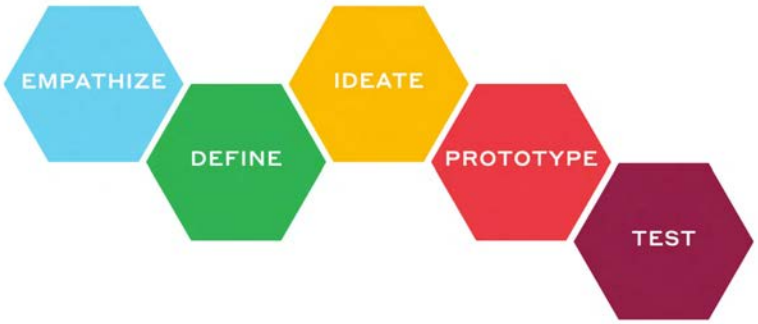


Figure 3.1 Five Steps of a Design Thinking Framework

The Prototype phase involved generating a diverse set of visual outputs using AI tools and refining these through both aesthetic judgment and feedback from collaborators. Finally, in the Test stage, a series of four structured user studies were carried out to evaluate the visual designs in increasingly applied contexts, from offline exhibition to online interaction.

3.5. Experimental Stages and User-Centered Testing

3.5.1 Test 1: Visual Engagement at an Exhibition Event

The initial test evaluated real-world reactions to AI-generated visuals used in a professional offline setting. A set of nine images was created using MidJourney, drawing inspiration from both Carpenter's product aesthetics and the geometric abstraction principles of Kazimir Malevich's Suprematist art(Figure 3.2). These visuals intentionally emphasized form, balance, and symbolic simplicity, echoing Carpenter's minimalist brand identity while subtly embedding references to traditional Taiwanese design motifs. The final outputs were printed as a collectible card set (91mm × 55mm), intended not only as aesthetic objects but also as tactile brand communication tools.

These cards were distributed at a business-to-business (B2B) exhibition event, where visitors to Carpenter's booth included designers, business clients, and creative professionals(Figure 3.3).The design strategy for this test emphasised rapid visual impact and abstract cultural resonance in order to elicit curiosity without relying on literal portrayals. The underlying assumption was that abstraction, when aligned with brand aesthetics, could encourage open interpretation and more personal forms of engagement, a concept supported by cognitive models of aesthetic appreciation that emphasise the role of viewer interpretation and emotional resonance in processing abstract visuals [69]. Observational data confirmed that the visuals succeeded in attracting attention. Multiple attendees were seen approaching the booth specifically to examine the cards, with several commenting on their visual uniqueness and unexpected sophistication. According to post-event staff interviews, remarks included statements such as "I didn't expect AI to produce something so creative and artistic" and "These images are very attractive." Staff also noted that the cards functioned as effective conversation starters, providing an accessible entry point for introducing Carpenter's design values and product philosophy. This outcome demonstrated the feasibility and potential of AI-generated abstract visuals as branding tools in physical B2B settings. It also validated the initial hypothesis that cultural and aesthetic resonance

does not necessarily require figurative representation—abstract styles can serve as powerful intermediaries in brand storytelling. The encouraging results from this stage motivated further exploration into how end-users interact with such visuals in more structured, user-centered environments.



Figure 3.2 Set of Mini card Designs

3.5.2 Test 2: Co-Creation with Graduate Students Using AI Tools

Encouraged by the positive feedback from the B2B exhibition, the second test shifted focus toward participatory design—exploring whether non-expert users could independently create visually compelling and brand-consistent imagery using AI tools. This stage aimed to investigate both the usability of AI-based image generation platforms and the emotional-cognitive experience of users during the co-creation process. The test engaged ten graduate students from Keio University's Media Design program, most of whom had limited prior experience with generative AI. The participants were introduced to MidJourney under a guided interaction framework that provided prompt examples, style references, and a simplified instruction manual. An example screenshot of this online guided framework can be seen in this figure (Figure 3.4). The design of this framework was informed by principles of scaffolded creativity, which suggest that well-structured support



Figure 3.3 Example Pictures from the Event

systems can help users bridge the gap between conceptual intent and technical execution [70]. To measure user experience and perceived outcome quality, participants completed two online questionnaires: Satisfaction of Your AI-generated Image (Before) and Satisfaction of Your AI-generated Image (After). These were based on Likert-scale items assessing five dimensions: overall image quality, visual appeal, creativity, technical accuracy, and alignment with user expectations. "Satisfaction" was defined as "a feeling which results from a process of evaluating what was received against that expected" [71], making this a useful metric for both user engagement and system performance.

The results revealed statistically significant increases in perceived creativity (from M = 2.6 to M = 3.5, t = -3.25, p = .010) and overall image quality (from M = 3.7 to M = 4.1), suggesting that participants felt empowered through the creation process and were often surprised by the expressiveness of their final outputs. While other aspects such as visual appeal and technical details also improved, they did not reach statistical significance, potentially reflecting the limitations of prompt-based image generation for users new to the tool. Qualitative feedback from participants further enriched these findings. Some commented that the AI output exceeded their expectations and allowed them to visualize styles they had difficulty

expressing through conventional graphic tools. Others noted the intuitive nature of the platform once they became familiar with the structure of effective prompts.

Taken together, these outcomes validate the effectiveness of a structured co-creation framework in facilitating meaningful user interaction with AI tools. More importantly, this phase provided practical insight into how non-designers might participate in the visual development process, opening up new possibilities for user-driven cultural branding. These insights laid the groundwork for the next phase, which directly compared AI-generated visuals with traditional product photography to assess engagement outcomes in a controlled perception test.



Figure 3.4 Examples of the Online Guided Framework

3.5.3 Test 3: Comparative Engagement Perception Among Graduate Students

Building on the outcomes of the co-creation experiment, the third test introduced a structured comparative engagement evaluation. This phase aimed to investigate not only whether users could co-create with AI effectively, but also whether the final AI-generated content would be perceived as more engaging than traditional brand visuals in a consumer-facing context. To this end, 10 students from Keio University's Media Design program were recruited. Participant was shown two visuals of the same Carpenter product: Image A, an AI-generated ink wash vi-

sual incorporating Taiwanese cultural motifs; and Image B, a standard product photograph originally used by the brand (Figure 3.5). Each of participants was shown these visuals in random order, so that potential effects regarding the order of visual exposure can be controlled.

Participants evaluated both images using a three-dimensional engagement questionnaire, which measured cognitive engagement (e.g., how mentally stimulating or thought-provoking the image was), emotional engagement (e.g., whether the image evoked curiosity or aesthetic appreciation), and behavioral intention (e.g., likelihood of interacting with or sharing the content). This approach aligns with the multidimensional view of consumer engagement proposed by Hollebeek et al. [62], which emphasizes the interplay of thought, feeling, and action in branding contexts.

The results showed a clear and consistent preference for the AI-generated visual. Cognitive engagement averaged 4.4 (SD = 0.5) for Image A, compared to 3.6 (SD = 0.6) for Image B. Emotional engagement was also higher for Image A (M = 4.0, SD = 0.6) than for Image B (M = 3.3, SD = 0.7). Finally, behavioral intention was stronger for the AI image (M = 4.1, SD = 0.7) than the original photo (M = 3.4, SD = 0.6), suggesting greater potential for audience-driven dissemination and interaction. These findings provide empirical support for the hypothesis that embedding culturally resonant visual cues—such as traditional artistic styles—can significantly enhance the effectiveness of AI-generated marketing visuals. The stylistic familiarity of ink wash painting may have served as a visual bridge, increasing perceived relevance and emotional appeal among Japanese viewers, even though the motifs were Taiwanese in origin. This supports the broader argument that cultural hybridity, when aesthetically coherent, can be an effective design strategy in cross-cultural branding. Moreover, the consistency of the results across all three engagement dimensions strengthened the internal validity of the experiment and provided a strong rationale for proceeding to a real-world, large-scale application. By confirming that target users responded more positively to AI-generated content enriched with cultural symbolism than to standard commercial photography, this test served as a critical transitional phase from controlled user study to ecological validation via social media deployment in the final stage.

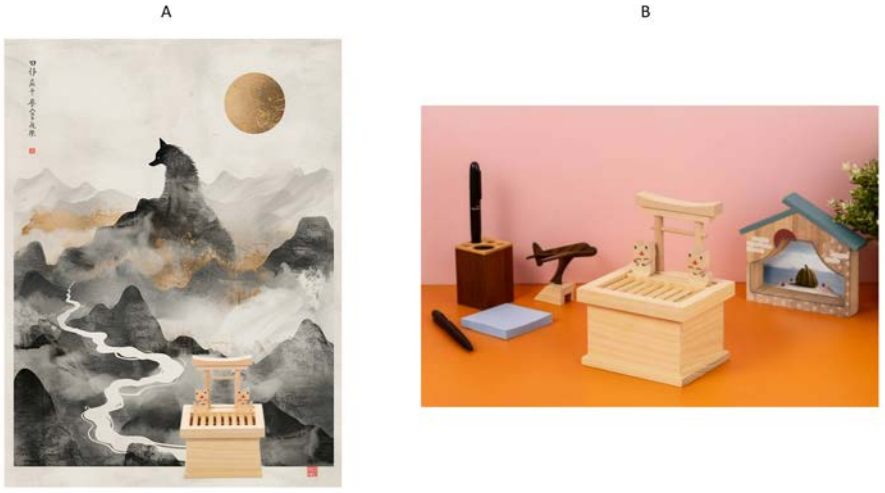


Figure 3.5 Comparison of Image A and B

3.5.4 Feedback and Strategic Insights from Tests 1–3

The findings from the first three tests provided valuable feedback that shaped the design and execution of the final experiment. Test 1 offered real-world evidence that AI-generated visuals could spark curiosity and function as conversation starters in a professional B2B context. The positive reactions and staff interviews highlighted that culturally inspired AI visuals can not only attract attention but also communicate brand identity effectively. Building on that, Test 2 demonstrated the feasibility and usability of a structured co-creation process with non-experts. The statistically significant improvement in perceived creativity underscored the potential of AI tools to empower users in visual design, especially when supported by a clear guiding framework. This result reinforced the confidence in the communicative and aesthetic potential of AI-generated cultural content. Furthermore, Test 3 further validated the hypothesis by revealing that audiences respond more positively—both emotionally and behaviorally—to visuals that embed cultural motifs compared to standard photography. The comparative framework clarified the added value of cultural design elements and confirmed that even subtle visual adaptations can elevate perceived engagement.

Together, these three exploratory tests built a compelling rationale for moving forward with a full-scale branding experiment on Carpenter's official Instagram

account. They informed both the content design (emphasizing cultural motifs with proven appeal) and the engagement strategy (using interactive and time-sensitive formats), directly shaping the architecture of final Test 4.

3.6. Test 4: Instagram Story-Based Online Experiment (Final Evaluation)

The final and most comprehensive test served as the central validation of the research hypothesis. This phase aimed to explore whether culturally embedded, AI-generated visuals could foster engagement and brand resonance among Japanese audiences in a real-world digital setting. Twelve visual stimuli were created using a 3×4 matrix that combined three Carpenter product types with four Taiwanese visual styles: blue-and-white porcelain, paper cutting, ink wash painting, and vintage print art. These visuals were sequentially posted on Carpenter's official Instagram Stories over four weeks.

3.6.1 Platform Rationale: Why Instagram Stories?

Instagram Stories were selected as the primary platform for this experiment due to their highly interactive nature and temporary visibility, which encourage real-time engagement. Compared to standard Instagram Posts, which are designed for permanence and passive viewing, Stories offer built-in features such as polls, emoji sliders, and clickable quizzes, all of which provide natural touch-points for data collection and user interaction. Additionally, unlike Reels—which favor short-form video content optimized for virality—Stories allow for a more curated and sequential presentation of images, making them well-suited for narrative-driven branding experiments. Another key advantage of using Stories is their fixed 24-hour visibility window. This time-bound structure enables consistent exposure periods across all stimuli, which helps control for external variables such as post longevity and algorithmic visibility bias. It also facilitates clearer segmentation of engagement data by day and condition, allowing for more reliable comparisons during analysis. Prior studies have shown that Stories foster more intimate, immediate interactions and are more likely to receive direct responses, especially

from existing followers [66]. For this reason, the Story format was ideal for testing how different AI-generated cultural visuals affect user engagement in a controlled yet ecologically valid branding context.

3.6.2 Test Structure and Posting Plan

The experimental stimuli consisted of 12 AI-generated images, created by combining three distinct Carpenter products with four different Taiwanese cultural visual styles: Taiwanese vintage print art3.6, paper cutting3.7, ink wash painting3.8, and traditional blue-and-white porcelain style3.9. Each style was applied consistently across all three products, forming a 3×4 visual matrix that enabled the comparison of how different cultural themes interact with brand identity in visual communication.



Figure 3.6 Instagram Story Posts of Taiwanese Vintage Print Art Style

The posting strategy was designed to simulate a realistic yet controlled social media branding scenario. Content was published through Carpenter's official Instagram account, ensuring the audience interaction occurred in a genuine brand-following context. Stories were posted once a week on Wednesday mornings to control for timing-related variables such as daily engagement fluctuations. Each release included three sequential Instagram Stories featuring one cultural theme applied to three different products. Interactive elements such as polls, multiple-choice questions, and emoji sliders were embedded into the Stories to stimulate engagement and collect behavioral data. This schedule was repeated



Figure 3.7 Instagram Story Posts of Ink Wash Painting Style



Figure 3.8 Instagram Story Posts of Paper Cutting Style



Figure 3.9 Instagram Story Posts of Traditional Blue-and-white Porcelain Style

across four consecutive weeks, with each week dedicated to a different visual style. By structuring the experiment in this way, the study ensured both consistency in exposure conditions and sufficient temporal spacing to avoid audience fatigue. This approach allowed for the assessment of user responses across different design themes, while maintaining a realistic rhythm of brand content delivery on social media.

3.6.3 Engagement Data Collection

Engagement data were collected using a two-pronged approach: behavioral metrics from Instagram and subjective responses from a post-exposure questionnaire. However, unlike embedded Story-based surveys, the questionnaire was distributed separately to a group of target users who had viewed the full Story series. This group consisted primarily of Keio University students currently living in Japan, who represented a relevant audience segment for Carpenter's brand communication goals within the Japanese market. The rationale for focusing on this group is rooted in the objective of the experiment: to explore how AI-generated cultural visuals can enhance Japanese consumer engagement with a Taiwanese brand whose products incorporate Japanese-inspired design. Therefore, collecting detailed feedback from users embedded in the local Japanese context was essential for evaluating whether the visual content successfully resonated with the intended

cultural audience.

The questionnaire was designed based on a multidimensional definition of engagement that goes beyond simple clicks or views. As Hollebeek, Glynn, and Brodie [62] described, consumer engagement involves not only behavioral interaction but also emotional and cognitive investment in the brand experience. Guided by this framework, the questionnaire included items assessing perceived creativity, cultural appropriateness, visual appeal, and the perceived consistency of the image with Carpenter's brand identity. These constructs align with affective and cognitive engagement dimensions and help evaluate whether the visual strategy effectively fosters a deeper connection between the user and the brand. Instagram Story metrics such as view count, poll participation, and emoji slider responses were also documented using Instagram's native Insights dashboard. While these behavioral indicators served as surface-level measures of interaction, the survey responses provided richer insights into user perception and cultural reception. Together, these two sources of data offered a comprehensive view of engagement, bridging observable behavior with underlying interpretation.

Chapter 4
Results and Application

4.1. Results Analysis

This section presents the results of the Instagram Story experiment, which aimed to examine how AI-generated images incorporating Taiwanese cultural elements influence social media engagement in a Japanese market context. The findings are based on Instagram Insight data (including measurements such as reach, interactions, and link clicks) and a post-viewing engagement questionnaire administered to viewers in Japan.

4.1.1 Instagram Story Performance Analysis

Four different cultural visual themes were tested over a four-week period: Taiwanese Vintage Print style, Paper Cutting style, Ink Wash style, and Blue-and-White Porcelain style. Each series consisted of three AI-generated Story posts featuring a Japanese-localized Carpenter product embedded within visuals infused with traditional Taiwanese cultural motifs. Each Story was published via Carpenter's official Instagram account every Wednesday morning in order to control potential effects caused by the time of day.

Quantitative engagement metrics were extracted from Instagram Insights, focusing on key variables: total reach (view count), total interactions (e.g., replies, sticker taps), link clicks, and viewer region distribution (Table 4.1).

Table 4.1 Instagram Story Performance by Visual Style

Style	**Avg. Views**	**Avg. Interactions**	**Avg. Link Clicks**	**Regional Shift (JP)**
Vintage Print	74.0	4.0	2.0	+1.3%
Paper Cutting	78.3	6.3	3.3	+0.6%
Ink Wash	81.0	6.7	2.7	+0.7%
Blue-and-White Porcelain	84.3	6.7	3.0	+0.5%

Among the styles tested, Blue-and-White Porcelain achieved the highest average view count, followed closely by Ink Wash, suggesting that designs highlighting clear cultural contrast—while maintaining visual harmony—may capture more attention. Paper Cutting and Ink Wash generated the highest interaction levels, including direct replies and sticker taps. Overall, all four series showed an increase in the proportion of Japanese-based viewers, with the most notable increase occurring during the Vintage Print series (from 2.5% to 3.8%, a statistically significant difference: $p < .05$). This regional shift supports the hypothesis that AI-generated visuals infused with culturally rich, non-local aesthetics can enhance engagement even within localized markets. The positive reception among Japanese users suggests a cross-cultural curiosity that, when harnessed correctly, can benefit brand communication.

4.1.2 Post-Viewing Engagement Questionnaire

To further assess viewer engagement beyond platform metrics, a post-viewing questionnaire was distributed to Keio University graduate students residing in Japan, who had viewed the full set of Story posts. Engagement was evaluated across three dimensions—cognitive, emotional, and behavioral—using 12 items adapted from existing engagement scales [72] [73]. Each item was rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The questions and results of this questionnaire can be seen in the table below (Table 4.2).

These results show high engagement across all three dimensions. Cognitive engagement was particularly strong, especially in capturing attention (M = 4.7)

Questionnaire Item	Mean	SD
Cognitive Engagement		
The visual content captured my attention.	4.7	0.5
I found myself mentally focused while viewing the content.	4.0	0.7
I thought about the meaning or story behind the image.	4.3	0.7
I was interested in understanding the cultural elements shown in the content.	4.6	0.7
Emotional Engagement		
I felt emotionally connected to the content.	3.7	0.7
The content triggered a positive emotional response.	4.0	0.7
The content felt personally relevant or familiar to me.	3.7	0.8
I felt a sense of enjoyment while viewing the content.	4.0	0.6
Behavioral Engagement		
I would tap or interact with this content if I saw it on Instagram Stories.	3.9	0.9
I would likely share or screenshot this content.	3.3	0.9
I would explore the brand or product after seeing this story.	4.2	0.6
I would remember this visual if I came across it again.	4.3	0.7

Table 4.2 Post-viewing engagement questionnaire results across cognitive, emotional, and behavioral dimensions (n=10).

and stimulating cultural interest (M = 4.6), aligning closely with the goal of integrating Taiwanese cultural motifs into branding. Emotional engagement, though slightly lower (M = 3.7–4.2), still demonstrated positive affective resonance, while behavioral engagement scores indicated a strong intent to interact with or follow up on the content.

Taken together, both the Instagram metrics and questionnaire data provide converging evidence in support of the hypothesis: AI-generated images that integrate home-country (Taiwan) cultural visual elements into product-based branding will generate higher social media engagement than images that adopt only localized Japanese cultural aesthetics. Notably, the overall integration of Tai-

wanese cultural elements—such as traditional motifs, art styles, and symbolic visuals—into product-centered Instagram Stories attracted considerable engagement from Japanese viewers. Despite the content being visually anchored in Taiwanese cultural aesthetics (representing a form of standardization), the localized presentation within a Japanese platform context did not diminish its appeal. On the contrary, the increase in Japanese-based viewers (from 2.5% to 3.8%) and the high scores across cognitive and behavioral engagement dimensions suggest that such cross-cultural visual blending can effectively support brand localization goals, reinforcing the hypothesis that standardized, culturally rich visuals from the home country can resonate internationally when presented with aesthetic coherence.

4.1.3 Reflections on Client-Side Adjustments and Cultural Sensitivity

An important insight emerged when the AI-generated visuals were handed over to Carpenter's team for final publication. In particular, one image from the Blue-and-White Porcelain series initially featured an icon that combined the Chinese and Japanese national flags. This design choice was intended to symbolically represent the cultural fusion underlying the product concept and the brand's transnational positioning. However, prior to publishing the Story, Carpenter staff replaced this icon with a more neutral visual element—an illustration of a bottle and mountain—citing potential concerns over political and cultural sensitivity in the Japanese market.

This design adjustment underscored the importance of understanding not only visual aesthetics, but also the socio-political implications embedded in symbolic representation. Although the original flag-based imagery was meant to visually communicate the spirit of cross-cultural dialogue, the use of national flags in commercial content may evoke unintended interpretations, especially in markets where historical or political sensitivities remain salient. As Hall [74] theorized in his encoding/decoding model, media messages are not simply received passively by audiences but are actively decoded through their own cultural frameworks and lived experiences. In this case, the intended "fusion" message may have been reinterpreted by Japanese viewers in ways that diverge from the designer's original

intent.

From this perspective, the adjustment made by Carpenter's team can be seen as a form of strategic decoding—an anticipatory editorial intervention that prioritized brand neutrality and cross-cultural inclusivity. Their decision reflects a nuanced understanding of how audiences might react to national symbolism within marketing contexts, particularly in East Asia, where political iconography can carry complex emotional and historical weight.

This experience provided the researcher with an important lesson in applied intercultural design: that even AI-generated content grounded in cultural creativity must undergo context-aware validation before real-world deployment. Collaborating with local brand stakeholders not only ensured the visual appropriateness of the final content, but also highlighted the role of human discretion in mediating between algorithmic creativity and market-specific social expectations. The case illustrates the value of maintaining a flexible, dialogue-based design process, in which AI tools are used not to replace human judgment but to enhance collaborative, culturally sensitive storytelling.

4.2. Application

This section demonstrates the broader significance and applicability of the design outcomes presented in this thesis. Following Zimmerman's [75] "Design Thesis" structure, it demonstrates how the human-AI co-designed artefact (AI-generated Instagram Stories of Japanese-inspired products incorporating Taiwanese cultural elements), the user engagement it facilitated, and the insights gained from the design process can inform future communication strategies for global brands pursuing to enter culturally distinct markets.(e.g., Carpenter, a Taiwan-based brand aiming to expand into the Japanese market as part of its global strategy).

4.2.1 Designed Artifact and User Experience

The core artifact developed in this thesis is a series of AI-generated Instagram Stories that embed Taiwanese cultural aesthetics into product-based visual branding. These images were not merely decorative but deliberately crafted to evoke cultural

resonance, spark curiosity, and foster engagement among Japanese users. The artifact was paired with a digital storytelling strategy optimized for Instagram's native format and tested in a real-world brand collaboration with Carpenter, a Taiwanese design company. Moreover, user experience was evaluated across cognitive, emotional, and behavioral engagement. The results demonstrated that viewers in Japan were not only visually attracted to the content but also invested cognitively in interpreting the cultural meaning behind the imagery. Emotional and behavioral engagement, such as link clicks and content sharing intent, further validated the effectiveness of the content in facilitating cross-cultural interaction. These findings provide proof-of-concept that foreign cultural visual elements, when thoughtfully integrated, can enhance the storytelling power of branding in globalized media spaces.

4.2.2 Reproducibility of the Design Process

The design process developed in this thesis followed a structured, repeatable sequence that enables both creative flexibility and methodological consistency. Specifically, it involved (1) generating visuals using the AI tool MidJourney, (2) deploying the content through Instagram Stories to gather performance metrics such as view counts, interaction levels, and regional reach, and (3) collecting post-viewing questionnaire responses to evaluate user engagement across cognitive, emotional, and behavioral dimensions. This cyclical process supported rapid iteration, empirical testing, and reflection—key elements of design research in media contexts. What makes this process reproducible is its modularity and methodological transparency. Each stage—from defining product context and cultural direction, to visual generation, public release, and user evaluation—can be adapted to other research contexts or brand experiments. For instance, by selecting different cultural motifs, using alternative AI generation tools, or modifying the distribution platform (e.g., TikTok or YouTube Shorts), researchers and practitioners can test similar hypotheses in various markets.

Importantly, a hybrid technique that connects design practice and empirical research is created by combining computational innovation (through AI), culturally informed aesthetic decision-making, and user-centred feedback. The balance between rigour and relevance, which is frequently emphasised in design-based re-

search literature (e.g., Zimmerman et al.'s study which has been mentioned previously [75]), is supported by this trinity of artefact production, real-time user data, and post-hoc analysis. Furthermore, this method's reproducibility is enhanced by the utilisation of social media as a live testing environment. Platforms like Instagram provide access to dynamic user interactions and genuine audience behaviour, which is different from controlled laboratory settings. This allows for richer and more ecologically valid results. As a result, this procedure not only makes content testing easier but also replicates actual branding difficulties in cross-cultural communication.

In sum, the reproducibility of this process lies in its clear logic, methodological integration, and applicability across disciplines and markets. It offers a practical blueprint for future design inquiries focused on cultural representation, AI-driven creativity, and cross-cultural audience engagement.

4.2.3 Validation of the Experimental Design

The validity of this design-based research was established through both iterative testing and triangulated data collection. The experimental structure followed a four-stage progression—offline exhibition, co-creation, comparative testing, and public engagement via Instagram Stories—which enabled the researcher to refine the visuals, hypotheses, and methodological tools at each step. This gradual build-up allowed for internal consistency and external applicability. Early feedback from B2B audiences and graduate students helped validate the visual approach, while the Instagram deployment allowed for real-world testing with target users.

The research's validity can also be supported by methodological triangulation [76], which enhances validity by combining different methods and data sources to investigate a single research phenomenon. The study employed mixed methods, including observation, interviews, performance metrics, and engagement questionnaires. These diverse data sources captured both surface-level interaction (e.g., views, clicks) and deeper cognitive-emotional responses, addressing both breadth and depth of engagement. The alignment of qualitative impressions, survey scores, and behavioral metrics provides converging evidence for the effectiveness of the proposed design strategy.

Additionally, construct validity was supported by the use of well-established

engagement dimensions [62] [77], while ecological validity was reinforced through the use of a real brand account and a naturalistic viewing environment. This layered validation strategy ensures that the design insights are not only academically sound but also practically meaningful for future brand communication efforts.

4.2.4 Extensibility and Broader Implications

The successful application of this design intervention in the Japanese market suggests significant extensibility to broader international branding contexts. he fundamental framework—the incorporation of home-country cultural aesthetics through AI-generated design—offers a flexible paradigm for organisations looking to strike a balance between authenticity and global relevance, even if the case study was explicitly focused on Taiwanese cultural themes and a Japanese audience. An alternative to traditional localization—where visual content is frequently completely modified to conform to the host culture—is offered by the procedure described in this thesis. Rather, this study promotes a more hybrid approach that maintains culturally distinctive components while making them visually and contextually understandable to audiences in other countries. This approach aligns with emerging global branding theories that emphasize "glocalization"—the fusion of global reach with local resonance—and supports the idea that authenticity [78], rather than conformity, increasingly defines successful brand communication. The observed increase in engagement from Japanese viewers, including a notable rise in region-based metrics and positive evaluations across engagement dimensions, reflects a growing receptivity toward hybrid and cross-cultural storytelling. Even when viewers are unfamiliar with the specific cultural references (e.g., Taiwanese folklore or traditional aesthetics), they may still respond positively if the presentation is visually compelling and emotionally resonant.

The implications of this work extend well beyond the branding of physical products. Industries such as tourism, cultural heritage, education, fashion, as well as Food and Beverage can adopt similar strategies to promote cultural narratives in ways that are both digitally native and globally appealing. Moreover, the use of AI tools like MidJourney introduces new possibilities for content creators, enabling rapid, scalable, and stylistically coherent outputs that can be tailored to cross-cultural needs. Rather than relying solely on design experts or local agencies,

smaller brands can now experiment independently with aesthetic direction, testing cultural integration through low-cost, data-informed methods. Furthermore, this thesis contributes to ongoing discourse on the ethics and creativity of AI in cultural communication. By using AI not merely as a tool for automation but as a facilitator of intercultural dialogue, the project demonstrates how technology can be employed to foster deeper connections between cultures, rather than flattening them into generic or overly localized templates. It suggests a future where AI-assisted design enhances cultural diversity in branding, providing new opportunities for underrepresented narratives to find space in global markets.

In conclusion, this design thesis not only confirms the potential of AI-generated cultural branding, but also articulates a flexible, repeatable, and forward-thinking technique. It enables researchers and practitioners to investigate culturally adaptive design communication with increased creativity, contextual sensitivity, and technology literacy.

Chapter 5
Discussion and Future Works

This final chapter presents a comprehensive analysis of the research findings and explores their broader implications and future potential. It revisits the central hypothesis, contextualizes the results within existing theoretical frameworks, and critically reflects on the methodological limitations. The discussion is structured into four sections: interpretation of results, challenges and limitations, future research directions, and concluding remarks.

5.1. Interpretation and Implications

The central hypothesis of this study proposed that AI-generated images incorporating home-country (Taiwanese) cultural elements into product branding would elicit stronger engagement from a Japanese audience than visuals created purely with localized Japanese motifs. The hypothesis was grounded in the belief that audiences are increasingly drawn to authentic, distinctive narratives, especially when such content is aesthetically adapted to the viewing context.

The experimental findings offer notable support for this hypothesis. Across the four visual styles—Taiwanese Vintage Print, Paper Cutting, Ink Wash, and Blue-and-White Porcelain—each of which embedded recognizable Taiwanese cultural elements, Instagram Story performance remained consistently positive. Metrics such as average views (ranging from 74.0 to 84.3), interaction levels, and link clicks indicated audience receptivity. Particularly, viewer demographics showed an increase in Japanese-based accounts from 2.5% to 3.8% over the experiment period, suggesting that Taiwanese visuals, when thoughtfully integrated, can engage local audiences even without full localization.

These behavioral data were further validated by a post-viewing questionnaire

conducted with Japanese graduate students. On a 5-point Likert scale, responses revealed high levels of cognitive engagement (M = 4.4), emotional engagement (M = 3.9), and behavioral engagement (M = 3.9). Participants reported being mentally absorbed by the visuals, emotionally responsive, and willing to interact with or remember the content. The integration of cultural elements—particularly visual motifs traditionally seen in Taiwanese media or craft—was perceived as interesting and valuable. This convergence of quantitative and qualitative results reflects the broader logic of "glocalization," a branding strategy that encourages the blending of global identity with local cultural relevance. Rather than erasing or downplaying Taiwanese identity, the visual stories retained their cultural signatures and still appealed to Japanese viewers. This finding supports assertions in branding literature that authenticity and creative distinctiveness often outperform strict conformity to local norms [78] [48].

Moreover, the use of AI to facilitate this process highlights a new frontier in cultural communication—one where automation does not reduce creativity, but amplifies it. By using tools like MidJourney, designers can explore cultural hybridity in ways that are scalable and experimentally grounded, fostering new aesthetic encounters across borders.

5.2. Limitations and Challenges

Despite the encouraging results, this study also contains certain limitations. For example, the use of Instagram performance metrics—such as view counts, sticker taps, and link clicks—is subject to numerous external variables. Algorithmic visibility, follower behavior, and even the time or day of posting can influence engagement rates. Although attempts were made to control for these variables, complete experimental control is not feasible on commercial platforms. This introduces an unavoidable degree of measurement error.

Second, the participant pool for the post-viewing questionnaire was limited to graduate students at Keio University. While this demographic is aligned with the brand's potential target audience, it presents issues of generalizability. Participants shared similar age, education level, and socio-cultural exposure. As such, their responses may not reflect the perspectives of older consumers, those with

limited international experience, or users of different platforms.

Third, the questionnaire employed was adapted from the User Engagement Scale [77], relying on self-report measures. While effective for gauging perceptual engagement, such methods are prone to response biases. As Podsakoff et al. [79] highlight, participants may unconsciously adjust their answers based on social expectations or perceived research goals. Future research could integrate biometric or behavioral tracking methods (e.g., eye-tracking, facial expression analysis) to provide more objective insights into emotional and attentional engagement. Furthermore, while AI-generated images provide speed and flexibility, they are limited by the model's constraints and the creator's prompt literacy. The representation of cultural aspects is interpretative, which might result in unwanted abstraction or aesthetic mismatch. The AI's dataset biases may also influence how specific themes are depicted, potentially misrepresenting cultural specifics.

5.3. Directions of Future Studies

The outcomes of this thesis point to several promising directions for future exploration. One such direction is expanding demographic diversity. Including participants from different age groups, nationalities, or professional backgrounds can help validate whether the engagement observed here extends across broader consumer populations. The inclusion of older adults or children, for instance, could reveal generational differences in perception of foreign cultural elements.

In addition, another future avenue can be platform comparison. While Instagram was selected for its visual-first interface and popularity among young adults, testing content across other platforms like TikTok, Facebook, or WeChat could shed light on how engagement strategies must adapt to different algorithmic environments and content formats. Moreover, future work could experiment with richer narrative forms, combining still visuals with animated sequences or interactive features (e.g., polls, audio narration) to increase behavioral engagement. Participatory design approaches, where target audiences co-create visual content, might enhance cultural sensitivity and emotional connection. Finally, this methodology could be extended to applied settings such as product launch campaigns, tourism promotion, or international diplomacy. The use of AI-generated,

culturally adaptive design could serve as a low-cost, high-impact strategy for brands and public organizations seeking to communicate across cultures without sacrificing identity.

5.4. Conclusion

In conclusion, this thesis demonstrates that AI-generated visuals embedding home-country cultural elements can resonate across borders, even within competitive and algorithmically dynamic social media platforms. The findings provide empirical support for the central hypothesis and contribute to academic discourse on glocalization, cultural branding, and design research. While the study faces certain methodological constraints, it also opens up new possibilities for adaptive, scalable, and culturally sensitive communication strategies. As globalization continues to reshape the way brands interact with diverse audiences, design approaches that blend authenticity, storytelling, and technological innovation will become increasingly essential.

This thesis thus not only validates a new design strategy but also lays the foundation for future academic and practical work in intercultural digital branding. It emphasizes the importance of preserving cultural specificity while fostering cross-cultural understanding—an ethos that is as relevant in brand communication as it is in global society.

References

[1] AIPRM. Ai statistics 2024 · aiprm, January 2024. URL: https://www.aiprm.com/ai-statistics/.

[2] Alec Tyson Saks, Brian Kennedy and Emily. Public awareness of artificial intelligence in everyday activities, February 2023. URL: https://www.pewresearch.org/science/2023/02/15/public-awareness-of-artificial-intelligence-in-everyday-activities/.

[3] Václav Moravec, Nik Hynek, Beata Gavurova, and Matus KUBAK. Everyday artificial intelligence unveiled: Societal awareness of technological transformation. *Oeconomia Copernicana*, 15(2):367–406, 2024.

[4] Anita Gungunawat, Naman Khandelwal, and Nidhi Gupta. Ai-powered personalization in digital marketing: Transforming consumer engagement and strategy. *RESEARCH REVIEW International Journal of Multidisciplinary*, 9(1111):183–191, November 2024. doi:10.31305/rrijm.2024.v09.n11.026.

[5] Patrick Azuka Okeleke, Daniel Ajiga, Samuel Olaoluwa Folorunsho, and Chinedu Ezeigweneme. Predictive analytics for market trends using ai: A study in consumer behavior. *International Journal of Engineering Research Updates*, 7(1):036–049, August 2024. doi:10.53430/ijeru.2024.7.1.0032.

[6] HubSpot Research Team. The state of ai in marketing 2024: Usage, benefits, and predictions, 2024. URL: https://blog.hubspot.com/marketing/ai-in-marketing-report.

[7] Camilia Mazingue. Perceived challenges and benefits of ai implementation in customer relationship management systems. *Journal of Digitova-*

tion and information system, 3(11):72–98, June 2023. doi:10.54433/JDIIS.2023100023.

[8] Fazeela Mughal, Abdul Wahid, and Muazzam A. Khan Khattak. *Artificial Intelligence: Evolution, Benefits, and Challenges*, page 59–69. Springer International Publishing, Cham, 2022. URL: https://link.springer.com/chapter/10.1007/978-3-030-92054-8_4.

[9] Sunhee Park and Beomsoo Kim. The impact of everyday ai-based smart speaker use on the well-being of older adults living alone. *Technology in Society*, 71:102133, November 2022. doi:10.1016/j.techsoc.2022.102133.

[10] Toleen Mazloum and Betti Shahin. Ai and research: Benefits and challenges, April 2024. URL: https://www.researchgate.net/publication/380373826_AI_and_Research_Benefits_and_Challenges.

[11] Khalifa Alhosani and Saadat M. Alhashmi. Opportunities, challenges, and benefits of ai innovation in government services: a review. *Discover Artificial Intelligence*, 4(1):18, March 2024. doi:10.1007/s44163-024-00111-w.

[12] JCOM. Journal of science communication, 2023. URL: https://jcom.sissa.it/.

[13] Michelle Lopez. Fiu business study reveals how users perceive ai-generated medical advice., February 2025. URL: https://business.fiu.edu/news/2025/fiu-business-study-reveals-how-users-perceive-ai-generated-medical-advice.html.

[14] Maurice Jakesch, Megan French, Xiao Ma, Jeffrey T. Hancock, and Mor Naaman. Ai-mediated communication: How the perception that profile text was written by ai affects trustworthiness. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, CHI ' 19, page 1–13, New York, NY, USA, May 2019. Association for Computing Machinery. URL: https://doi.org/10.1145/3290605.3300469.

[15] Jess Hohenstein, Rene F. Kizilcec, Dominic DiFranzo, Zhila Aghajari, Hannah Mieczkowski, Karen Levy, Mor Naaman, Jeffrey Hancock, and Malte F.

Jung. Artificial intelligence in communication impacts language and social relationships. *Scientific Reports*, 13(1):5487, April 2023. doi:10.1038/s41598-023-30938-9.

[16] G. Thippanna, Pvsn Jyothi, and P. Krishnaiah. An extensive review of the benefits and drawbacks of ai tools. *World Journal of Advanced Research and Reviews*, 20(3):1668–1673, 2023. doi:10.30574/wjarr.2023.20.3.2636.

[17] Global Alliance. Groundbreaking report on ai in pr and communication management. https://www.globalalliancepr.org/news/2025/5/16/groundbreaking-report-on-ai-in-pr-and-communication-management, May 2025. Accessed 2025-06-09.

[18] U. S. Government Accountability GAO. Artificial intelligence' s use and rapid growth highlight its possibilities and perils — u.s. gao, September 2023. URL: https://www.gao.gov/blog/artificial-intelligences-use-and-rapid-growth-highlight-its-possibilities-and-perils.

[19] Grand View Research. Artificial intelligence in marketing market size report, 2030, 2025. URL: https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-marketing-market-report.

[20] Sparsh Sadhu. What is ai instagram trend? everything you need to know, April 2025. URL: https://www.socialpilot.co/blog/instagram-ai-trend.

[21] Shiddhartha Das. Short-form video, user-generated content are among top social media trends for 2025, March 2025. URL: https://www.inma.org/blogs/social-media/post.cfm/short-form-video-user-generated-content-are-among-top-social-media-trends-for-2025.

[22] Svilen Ivanov. Using artificial intelligence to create marketing content–opportunities and limitations. *Journal*, 2023. URL: https://www.researchgate.net/profile/Svilen-Ivanov/publication/372187456_Using_Artificial_Intelligence_to_Create_Marketing_Content_-_Opportunities_and_Limitations/links/64ad3151c41fb852dd69e762/

Using-Artificial-Intelligence-to-Create-Marketing-Content-Opportunities-and-Limitations.pdf.

[23] Sohaib Arshad. Performance of ai-generated content in content marketing. Master's thesis, Tallinn University of Technology, 2023.

[24] Syed Muhammad Mudassir Ahmed, Muhammad Owais, Mohammad Raza, Quasim Nadeem, and Bilal Ahmed. The impact of ai-driven personalization on consumer engagement and brand loyalty. *Qlantic Journal of Social Sciences*, 6(11):311–323, March 2025. doi:10.55737/qjss.v-iv.24313.

[25] Christian Burlacu. The impact of ai-powered content generation on customer experience, June 2023. URL: https://www.semanticscholar.org/paper/The-Impact-of-AI-Powered-Content-Generation-on-Burlacu/b0a12350d54580653bdca54b9a5b3ea287e9fd7c.

[26] Aleksandra Biernacka. Using ai-generated content for marketing purposes vs. copyrights. *Repository of Jagiellonian University*, March 2024. Accessed 2025-06-09. URL: https://ruj.uj.edu.pl/xmlui/handle/item/327951.

[27] José F. Medina and Mike F. Duffy. Standardization vs globalization: a new perspective of brand strategies. *Journal of Product Brand Management*, 7(3), 1998.

[28] Subhash C. Jain. Standardization of international marketing strategy: Some research hypotheses. *Journal of Marketing*, 53(1):70–79, 1989. URL: https://www.jstor.org/stable/1251525.

[29] Theodore Levitt. The globalization of markets, 1983. URL: https://hbr.org/1983/05/the-globalization-of-markets?utm_source=chatgpt.com.

[30] Marios Theodosiou and Leonidas C. Leonidou. Standardization versus adaptation of international marketing strategy: an integrative assessment of the empirical research. *International Business Review*, 12(2):141–171, 2003.

[31] Constantine S. Katsikeas, Saeed Samiee, and Marios Theodosiou. Strategy fit and performance consequences of international marketing standardization — request pdf. *ResearchGate*, September 2006. URL: https://www.researchgate.net/publication/227691417_Strategy_Fit_and_Performance_Consequences_of_International_Marketing_Standardization, doi:10.1002/smj.549.

[32] T. C. Melewar and John Saunders. International corporate visual identity: Standardization or localization? *Journal of International Business Studies*, 30(3):583–598, September 1999. doi:10.1057/palgrave.jibs.8490084.

[33] Susan P. Douglas and C. Samuel Craig. *Global Marketing Strategy: Perspectives and Approaches.* John Wiley Sons, Ltd, 2010. URL: https://onlinelibrary.wiley.com/doi/abs/10.1002/9781444316568.wiem06013.

[34] Das Narayandas, J. Quelch, and G. Swartz. Prepare our company for global pricing, 2001. URL: https://www.researchgate.net/publication/288352801_Prepare_our_Company_for_Global_Pricing.

[35] Nanda K. Viswanathan and Peter R. Dickson. The fundamentals of standardizing global marketing strategy. *International Marketing Review*, 24(1):46–63, February 2007. doi:10.1108/02651330710727187.

[36] Susan. P. Douglas and Yoram. Wind. The myth of globalization. *Columbia Journal of World Business*, 22(4):19–29, 1987. Accessed 2025-06-09. URL: https://faculty.wharton.upenn.edu/wp-content/uploads/2012/04/8712_The_Myth_of_Globalization.pdf.

[37] Melissa Archpru Akaka and Dana L Alden. Global brand positioning and perceptions: International advertising and global consumer culture. *ResearchGate*, January 2010. URL: https://www.researchgate.net/publication/247886319_Global_brand_positioning_and_perceptions_International_advertising_and_global_consumer_culture.

[38] Ven Sriram and Pradeep Gopalakrishna. Can advertising be standardized among similar countries? a cluster-based analysis. *International Journal of*

Advertising, 10(2):137–149, January 1991. doi:10.1080/02650487.1991.11104444.

[39] D. A. Aaker and E. Joachimsthaler. Lure of global branding, November 1999. Harvard Business Review Store article page. Accessed 2025-06-09. URL: https://store.hbr.org/product/lure-of-global-branding/99601.

[40] S. P. Douglas and C. S. Craig. Global marketing myopia. *Journal of Marketing Management*, 2(2):155–169, 1986.

[41] S. Tamer Cavusgil, Shaoming Zou, and Gurramkonda M Naidu. (pdf) product and promoting adaptation in export ventures: An empirical investigation. *ResearchGate*, September 1993. URL: https://www.researchgate.net/publication/5222624_Product_and_Promoting_Adaptation_in_Export_Ventures_An_Empirical_Investigation, doi:10.1057/palgrave.jibs.8490242.

[42] Ven Sriram and Pradeep Gopalakrishna. Can advertising be standardized among similar countries? a cluster-based analysis. *International Journal of Advertising*, 10(2):137–149, January 1991. doi:10.1080/02650487.1991.11104444.

[43] Demetris Vrontis, Alkis Thrassou, and Iasonas Lamprianou. International marketing adaptation versus standardisation of multinational companies. *International Marketing Review*, 26(4/5):477–500, January 2009. doi:10.1108/02651330910971995.

[44] Peterson Chawuruka. (pdf) striking a balance between standardisation and adaptation of marketing strategy:the need for a contingency strategy, December 2020. URL: https://www.researchgate.net/publication/347239272_STRIKING_A_BALANCE_BETWEEN_STANDARDISATION_AND_ADAPTATION_OF_MARKETING_STRATEGYThe_need_for_a_contingency_strategy.

[45] Zhimin Zhou, Yuan He, Yufeng Xie, and Shafaqat Mehmood. How cultural involvement in different brand types influences willingness to pay premium:

The mediating role of brand happiness. *Behavioral Sciences*, 14(1010):908, October 2024. doi:10.3390/bs14100908.

[46] Jeffrey X. Allan. Cross-cultural branding: The unique challenges of brand messaging across cultures, April 2022. URL: https://www.researchgate.net/publication/361411760_Cross-cultural_branding_The_unique_challenges_of_brand_messaging_across_cultures, doi:10.13140/RG.2.2.11773.23525.

[47] Angela Gracia B Cruz, Yuri Seo, and Daiane Scaraboto. Between cultural appreciation and cultural appropriation: Self-authorizing the consumption of cultural difference. *Journal of Consumer Research*, 50(5):962–984, January 2024. doi:10.1093/jcr/ucad022.

[48] Julien Cayla and Eric J. Arnould. A cultural approach to branding in the global marketplace. *Journal of International Marketing*, 16(4):86–112, December 2008. URL: https://www.researchgate.net/publication/238660212_A_Cultural_Approach_to_Branding_in_the_Global_Marketplace.

[49] Aytekin Firat, Kemal Y. Kutucuoglu, Isil Arikan Saltik, and Ozgur Tuncel. Consumption, consumer culture and consumer society. *Journal of Community Positive Practices*, (11):182–203, September 2013.

[50] Carpenter Woodworks Studio. Carpenter woodworks studio - creative handmade wooden products, n.d. Offers handcrafted wooden goods and creative DIY experiences in a minimalist natural wood style. Suitable for family visits, group activities, and parent-child bonding through craft. URL: https://www.carpenter.com.tw.

[51] Lauren Prusinski. Wabi-sabi, mono no aware, and ma: Tracing traditional japanese aesthetics through japanese history. *Intersect: The Stanford Journal of Science, Technology, and Society*, 2(1), 2012. URL: https://studiesonasia.scholasticahq.com/article/14408-wabi-sabi-mono-no-aware-and-ma-tracing-traditional-japanese-aesthetics-through-japanese-history.

[52] Stanford Encyclopedia of Philosophy. Japanese aesthetics, 2004. Accessed June 9, 2025. URL: https://plato.stanford.edu/entries/japanese-aesthetics/.

[53] Liao Ping-Hui. *Taiwan Under Japanese Colonial Rule, 1895–1945: History, Culture, Memory*, page 1–16. Columbia University Press, November 2006. URL: https://www.degruyterbrill.com/document/doi/10.7312/liao13798-003/html.

[54] Ayşegül Özsomer. The interplay between global and local brands: A closer look at perceived brand globalness and local iconness. *Journal of International Marketing*, 20(2):72–95, June 2012. URL: https://www.researchgate.net/publication/260097917_The_Interplay_Between_Global_and_Local_Brands_A_Closer_Look_at_Perceived_Brand_Globalness_and_Local_Iconness.

[55] Richard E. Petty and John T. Cacioppo. *The Elaboration Likelihood Model of Persuasion*, volume 19, page 123–205. Academic Press, January 1986. URL: https://www.sciencedirect.com/science/article/pii/S0065260108602142, doi:10.1016/S0065-2601(08)60214-2.

[56] Michel Tuan Pham. Representativeness, relevance, and the use of feelings in decision making. *Journal of Consumer Research*, 25(2):144–159, September 1998. doi:10.1086/209532.

[57] Pavica Sheldon and Katherine Bryant. Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior*, 58:89–97, May 2016. doi:10.1016/j.chb.2015.12.059.

[58] Elmira Djafarova and Tamar Bowes. 'instagram made me buy it' : Generation z impulse purchases in fashion industry. *Journal of Retailing and Consumer Services*, 59:102345, March 2021. doi:10.1016/j.jretconser.2020.102345.

[59] Katerina Lup, Leora Trub, and Lisa Rosenthal. Instagram instasad?: Exploring associations among instagram use, depressive symptoms, negative social

comparison, and strangers followed. *Cyberpsychology, Behavior, and Social Networking*, 18(5):247–252, May 2015. doi:10.1089/cyber.2014.0560.

[60] Naveen Kumar. How many people use instagram 2025 [users statistics], May 2025. URL: https://www.demandsage.com/instagram-statistics/.

[61] Kazimir Malevich. *The Non-Objective World: The Manifesto of Suprematism*. Dover Publications, 2003. Originally published in 1927.

[62] Linda D. Hollebeek, Mark S. Glynn, and Roderick J. Brodie. Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2):149–165, May 2014. URL: https://www.researchgate.net/publication/261954273_Consumer_Brand_Engagement_in_Social_Media_Conceptualization_Scale_Development_and_Validation.

[63] James Vincent. "an engine for the imagination" : an interview with david holz, ceo of ai image generator midjourney, August 2022. URL: https://www.theverge.com/2022/8/2/23287173/ai-image-generation-art-midjourney-multiverse-interview-david-holz.

[64] Eva Cetinic. The myth of culturally agnostic ai models, November 2022. URL: https://arxiv.org/abs/2211.15271v2.

[65] Irena Pletikosa Cvijikj and Florian Michahelles. Online engagement factors on facebook brand pages. *Social Network Analysis and Mining*, 3(4):843–861, December 2013. doi:10.1007/s13278-013-0098-8.

[66] Wondwesen Tafesse, , and Anders Wien. Implementing social media marketing strategically: an empirical assessment. *Journal of Marketing Management*, 34(9–10):732–749, June 2018. doi:10.1080/0267257X.2018.1482365.

[67] Hasso Plattner Institute of Design. An introduction to design thinking: Process guide, n.d. Accessed: 2025-06-14. URL: https://web.stanford.edu/~mshanks/MichaelShanks/files/509554.pdf.

[68] Kanyarat Sriwisathiyakun. Utilizing design thinking to create digital self-directed learning environment for enhancing digital literacy in thai higher education. *Journal of Information Technology Education: Innovations in Practice*, 22:201–214, January 2023. doi:10.28945/5184.

[69] Helmut Leder, Benno Belke, Andries Oeberst, and Dorothee Augustin. A model of aesthetic appreciation and aesthetic judgments. *British Journal of Psychology*, 95(4):489–508, 2004. doi:10.1348/0007126042369811.

[70] R. Keith Sawyer. How to transform schools to foster creativity. *Educational Leadership*, 69(5):34–40, 2011. Accessed: 2025-06-14. URL: https://keithsawyer.com/PDFs/TCR.pdf.

[71] Ingrid Fečiková. An index method for measurement of customer satisfaction. *The TQM Magazine*, 16(1):57–66, January 2004. doi:10.1108/09544780410511498.

[72] Heather O' Brien and Paul Cairns. An empirical evaluation of the user engagement scale (ues) in online news environments. *Information Processing Management*, 51(4):413–427, July 2015. doi:10.1016/j.ipm.2015.03.003.

[73] Dissemination and Implementation Models in Health Research. User engagement scale (ues) – dissemination implementation. Accessed: 2025-06-14. URL: https://dissemination-implementation.org/assessment-instrument/user-engagement-scale/.

[74] Stuart Hall. Encoding/decoding. In Stuart Hall, Dorothy Hobson, Andrew Lowe, and Paul Willis, editors, *Culture, Media, Language*, pages 128–138. Routledge, London, 1980. URL: https://spkb.blot.im/_readings/EncodingDecoding_HALL_1980.pdf.

[75] John Zimmerman, Jodi Forlizzi, and Shelley Evenson. Research through design as a method for interaction design research in hci. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI '07, page 493–502, New York, NY, USA, April 2007. Association for Computing Machinery. URL: https://doi.org/10.1145/1240624.1240704, doi:10.1145/1240624.1240704.

[76] Norman K. Denzin. *The Research Act: A Theoretical Introduction to Sociological Methods*. McGraw-Hill, New York, 2nd edition, 2017. URL: https://search.worldcat.org/zh-tw/title/research-act-a-theoretical-introduction-to-sociological-methods/oclc/995849358.

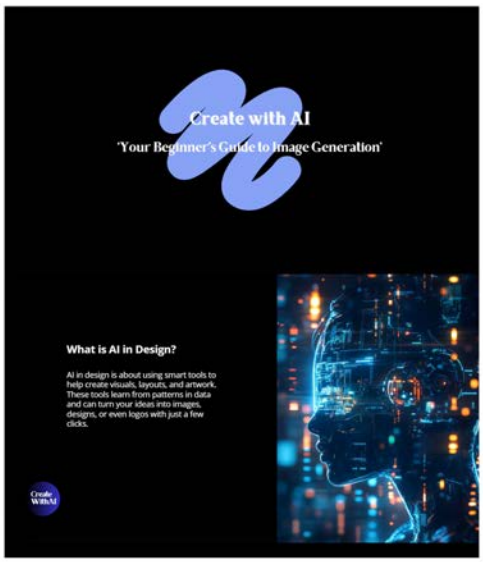
[77] Heather L. O' Brien and Elaine G. Toms. What is user engagement? a conceptual framework for defining user engagement with technology. *Journal of the American Society for Information Science and Technology*, 59(6):938–955, 2008. doi:10.1002/asi.20801.

[78] Roland Robertson. Glocalization: Time-space and homogeneity-heterogeneity. In Mike Featherstone, Scott Lash, and Roland Robertson, editors, *Global Modernities*, pages 25–44. Sage, London, 1995.

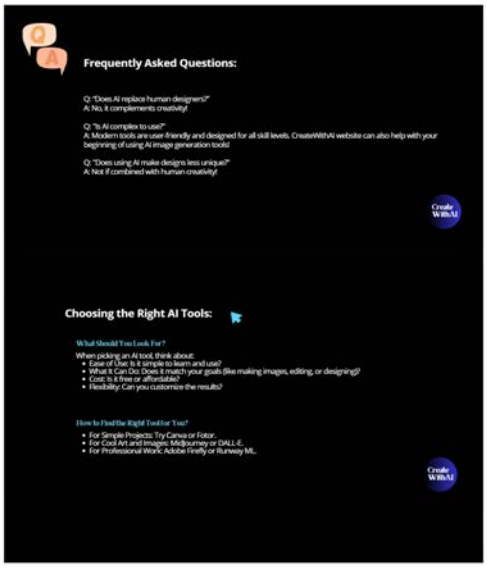
[79] Philip M. Podsakoff, Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5):879–903, 2003. doi:10.1037/0021-9010.88.5.879.

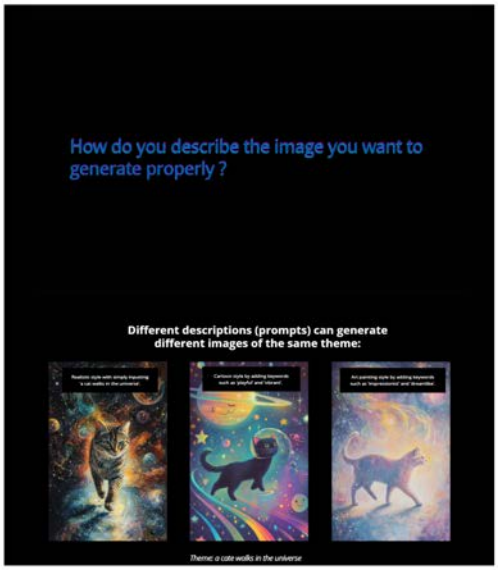
Appendices

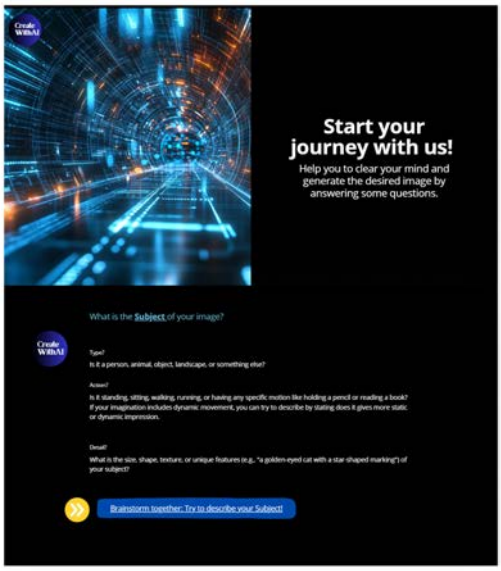
A. Screenshots of the Online Guided Framework: Full Version

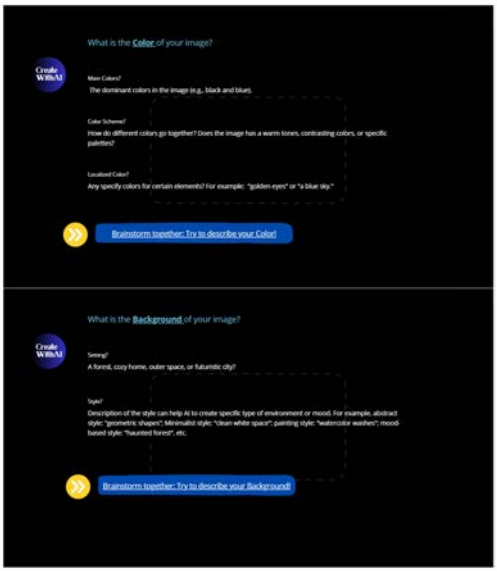


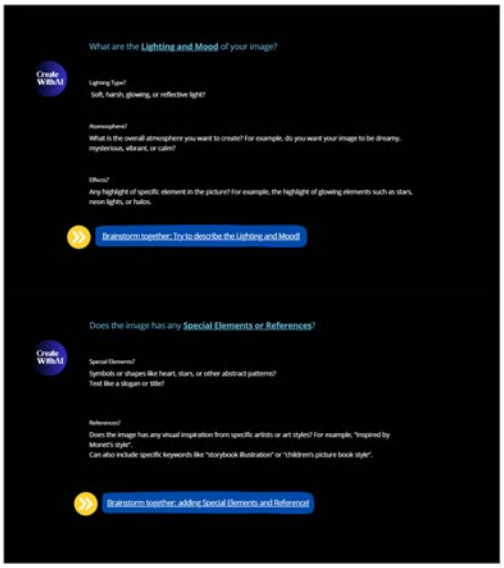


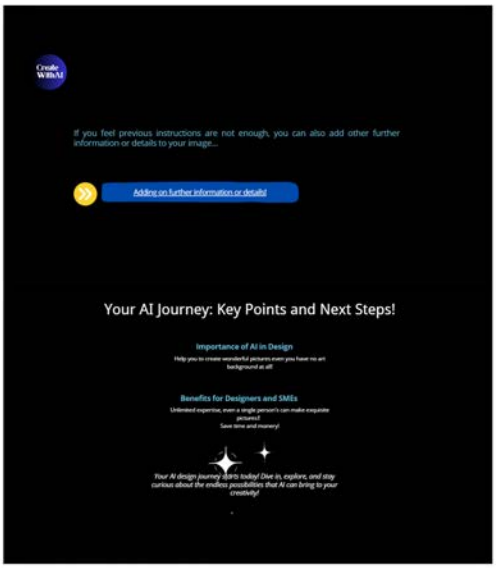

Frequently Asked Questions:
Q: "Does AI replace human designers?"
A: No, it complements creativity!
Q: "Is AI complex to use?"
A: Modern tools are user-friendly and designed for all skill levels. CreateWithAI website can also help with your beginning of using AI image generation tools!
Q: "Does using AI make designs less unique?"
A: Not if combined with human creativity!
Choosing the Right AI Tools:
What Should You Look For?
When picking an AI tool, think about:
• Ease of Use: Is it simple to learn and use?
• What It Can Do: Does it match your goals (like making images, editing, or designing)?
• Cost: Is it free or affordable?
• Flexibility: Can you customize the results?
How to Find the Right Tool for You?
• For Simple Projects: Try Canva or Fotor.
• For Cool Art and Images: Midjourney or DALL·E.
• For Professional Work: Adobe Firefly or Runway ML.


How do you describe the image you want to generate properly ?
Different descriptions (prompts) can generate different images of the same theme:
Theme: a cate walks in the universe


Start your journey with us!
Help you to clear your mind and generate the desired image by answering some questions.
What is the Subject of your image?
Type?
Is it a person, animal, object, landscape, or something else?
Action?
Is it standing, sitting, walking, running, or having any specific motion like holding a pencil or reading a book?
If your imagination includes dynamic movement, you can try to describe by stating does it gives more static or dynamic impression.
Detail?
What is the size, shape, texture, or unique features (e.g., "a golden-eyed cat with a star-shaped marking") of your subject?
Brainstorm together: Try to describe your Subject!


What is the Color of your image?
Main Colors?
The dominant colors in the image (e.g., black and blue).
Color Scheme?
How do different colors go together? Does the image has a warm tones, contrasting colors, or specific palettes?
Localized Color?
Any specify colors for certain elements? For example: "golden-eyes" or "a blue sky."
Brainstorm together: Try to describe your Color!
What is the Background of your image?
Setting?
A forest, cozy home, outer space, or futuristic city?
Style?
Description of the style can help AI to create specific type of environment or mood. For example, abstract style: "geometric shapes"; Minimalist style: "clean white space"; painting style: "watercolor washes"; mood-based style: "haunted forest", etc.
Brainstorm together: Try to describe your Background!


What are the Lighting and Mood of your image?
Create WithAI
Lighting Type!
Soft, harsh, glowing, or reflective light?
Atomosphere!
What is the overall atmosphere you want to create? For example, do you want your image to be dreamy, mysterious, vibrant, or calm?
Effects?
Any highlight of specific element in the picture? For example, the highlight of glowing elements such as stars, neon lights, or halos.
Brainstorm together: Try to describe the Lighting and Mood!
Does the image has any Special Elements or References?
Create WithAI
Special Elements?
Symbols or shapes like heart, stars, or other abstract patterns?
Text like a slogan or title?
References!
Does the image has any visual inspiration from specific artists or art styles? For example, "Inspired by Monet's style".
Can also include specific keywords like "storybook illustration" or "children's picture book style".
Brainstorm together: adding Special Elements and Reference!


Create WithAI
If you feel previous instructions are not enough, you can also add other further information or details to your image...
Adding on further information or details!
Your AI Journey: Key Points and Next Steps!
Importance of AI in Design
Help you to create wonderful pictures even you have no art background at all!
Benefits for Designers and SMEs
Unlimited expertise, even a single person's can make exquisite pictures!
Save time and money!
Your AI design journey starts today! Dive in, explore, and stay curious about the endless possibilities that AI can bring to your creativity!