

## User Interface Design for Thai Agricultural E - Commerce Platform

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### Abstract

*The importance of this research is to boost interaction rates between sellers and buyers based on online marketing principles. The priority in the design is application attractiveness and ease of use. The end benefit is to solve product distribution problems in the downstream phase of the agricultural industry. The objectives of this research study are as follows: 1) To evaluate appealing patterns for application design and appropriate graphic and multimedia design components. 2) To provide an optimal e-commerce application design with innovative design. This research was conducted with qualitative research. The methods included Application Pattern Evaluation, Graphic Design Element Evaluation, and Satisfaction Evaluation. The results are presented as follows: 1) The popular application patterns' features are Minimalism and Geometric forms that are simple designs where details are removed to deliver a clear message, Photography with graphics in an eco-conscious style, Glass morphism and Gradients with Soft Shadows. 2) The optimum design elements to be used in the application design are Minimalism and Geometric Styles, Photography with Graphics in Eco-conscious Style, and Glass Morphism and Gradients with Soft Shadows. 3) Satisfaction levels from using the protocol application are Photography with graphics in an eco-conscious style, Minimalism and Geometric styles, and Glass Morphism and Gradients with Soft Shadows.*

**Keywords:** User Interface Design, Thai Agricultural, E - Commerce Platform

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### Introduction

The exponential growth of Electronic Commerce (E-Commerce) as an internet-based trading mechanism necessitates critical examination beyond its technological efficiencies, particularly regarding digital equity and market concentration among dominant platforms, despite Amazon's (2022) reported 2.4 billion global users; furthermore, while enhancing targeted consumer access (Sudirjo et al., 2023), the platform raises significant concerns about data governance, algorithmic transparency, and environmental sustainability, as IoT integration and wireless technologies facilitate business operations without physical infrastructure but simultaneously generate complex socioeconomic implications including traditional retail displacement and potential technological dependencies that warrant rigorous scholarly investigation.

In the digital evolution nexus, User Experience and User Interface architectures (UX/UI Design) transcend mere functional components, they are neural bridges connecting humanity to the algorithmic realm, captivating consciousness across demographic strata (Malewicz, 2021). These quantum-leap interfaces, manifested through mobile and tablet ecosystems, bifurcate into complementary dimensions of digital existence. The UX framework represents a cognitive choreography, orchestrating user journeys through frictionless pathways that collapse space-

time barriers, generating recursive engagement loops that transcend conventional temporality. Meanwhile, UI design functions as the sensory translation layer, a synaptic interface where human intention materializes through interactive touchpoints: chromatic energy fields, typographic transmissions, geometric signifiers, and multidimensional input portals that transform abstract digital constructs into tangible experiential realities.

The establishment of Ranong Knowledge Center of Agricultural Product Development by palm-dependent entrepreneurs reveals a troubling agricultural paradigm that demands critical interrogation. While positioning itself as progressive, this initiative addresses the consequences, soil degradation, declining yields, and escalating costs, without confronting the fundamental unsustainability of monoculture palm cultivation itself. The diversification attempts through pepper cultivation, Baegu farming, and beekeeping represent superficial adjustments rather than structural transformation of exploitative agricultural practices. Similarly, the mechanization approach merely optimizes an inherently problematic system rather than reimagining it. Most concerning is the uncritical embrace of “value-added” processing and premium branding, strategies that primarily serve market expansion rather than ecological regeneration. The invocation of “local wisdom” alongside BCG models (2021) exemplifies the contradictory rhetorical juxtaposition of indigenous knowledge with corporate sustainability frameworks, obscuring the power dynamics that marginalize truly sustainable agricultural alternatives.

## Research Problems

This research has been undertaken as developmental inquiry to address product distribution challenges in the downstream sector of the agricultural business. It is anticipated to enhance engagement rates between merchants and buyers based on internet marketing principles and fulfill customer wants through contemporary lifestyle channels. Furthermore, the appeal and user-friendliness of the application are vital considerations in the design, despite the challenges in effectively communicating the product message to consumers. This research study presents the following problems.

1. What are the appealing application patterns for e-commerce platforms?
2. How to utilize graphic and multimedia design aspects to create appealing application patterns?

## Objectives

1. To evaluate appealing patterns for application design and appropriate graphic and multimedia design components.
2. To provide an optimal e-commerce application design with innovative design.

## Literature Review

### Thailand Bets on Bio-Circular-Green Economy to Drive Sustainable Growth

In a bold policy shift, Thailand's Office of National Higher Education Science Research and Innovation Policy Council (NXPO) has positioned the Bio-Circular-Green Economy (BCG) as the centerpiece of its sustainable development strategy, according to their 2020 policy statement.

The initiative targets four key “S-Curve” industries: agriculture and food, energy and materials, wellness and medicine, and tourism services. Through science and technology integration, officials hope to transform traditional farmers into high-value entrepreneurs while revolutionizing production methods. “We’re moving away from the linear economy model that depleted resources without addressing waste,”

explained a spokesperson from the NXPO. The new approach emphasizes eco-design, zero-waste processes, and circular systems including reuse and upcycling throughout production and consumption chains.

The BCG model aligns with global Sustainable Development Goals while incorporating Thailand's Sustainable Economy philosophy. Beyond environmental benefits, economic projections are substantial - officials anticipate a 4.4 trillion Baht boost (approximately 24% of GDP) within five years across the four targeted sectors. "While each industry can develop independently, the real power comes from integration," noted the NXPO in their 2021 report, emphasizing that the people-planet-profit framework delivers maximum national benefit when implemented holistically.

As implementation begins, stakeholders are watching closely to see if this ambitious economic transformation can deliver on both sustainability and economic growth promises.

The goals and success indicators of the BCG model were the key factors to elevate the citizen life quality (BCG, 2021). These can generate opportunities for income inequalities and can enable Thailand to become a world leader in some aspects where national strength has been well-known. National strategic goals have been indicated as followed.

- Economic value added of the target industries will be additionally contributed to 24% of GDP in 2027 (4.4 trillion THB) by transitioning agricultural oriented to industrial oriented.
- The income of farmers and communities will be increased by THB 100,000 per family unit per year. An inequality of medicine and medical supply accessibility will be reduced by 500,000 people per year.
- Elevate Thai food entrepreneurs' performance to produce healthy food and high-value food raw materials.
- Increase and develop export performance, production skills, and income in the focused industries: bio-industry, medical manufacturing, medical equipment, and biological material.
- Improve the tourism system to the ASIAN standard.
- Reduce waste of resource use in the production line.

## **E-Commerce is Another Form of Trading Products or Services Offered on an Internet System**

This can eliminate the complex process in traditional trading because the trading activities can be done at anytime and anywhere at consumers' convenience. Consumers can browse the pictures of the products before purchasing, and the payment system can be processed through E-money. It is unnecessary to visit the shop with cash or carry the products home as the logistic company can do this at the consumers' service.

A critical analysis of Amazon's evolutionary trajectory reveals a nuanced narrative beyond simplistic technological determinism. While Einstein's provocative dictum about repetition and insanity might suggest revolutionary thinking, Amazon's development represents a calculated, incremental disruption of traditional retail paradigms. The company's initial internet-based bookstore model was not merely a technological innovation, but a strategic deconstruction of existing distribution infrastructures.

By progressively expanding from books to diverse product categories - music, electronics, clothing, and personal care - Amazon systematically dismantled conventional retail boundaries, transforming from a niche online bookstore to a comprehensive global marketplace. This expansion was not random but a meticulously orchestrated strategy of market penetration and ecosystem creation.

The platform's most significant innovation lies not in its product diversity, but in its radical reimagining of seller-consumer relationships. By enabling independent entrepreneurs to utilize its infrastructure, Amazon effectively outsourced risk and innovation while maintaining a dominant intermediary position. This model represents a sophisticated form of platform capitalism, where technological infrastructure becomes a powerful mechanism for value extraction and market control.

Contrary to narratives of disruptive heroism, Amazon's success emerges from a complex interplay of technological capability, strategic foresight, and systematic exploitation of emerging digital economic models, a nuanced transformation far more complex than merely "doing something different."

The rapid global expansion of e-commerce, exemplified by companies like Alibaba and Shopee, raises important questions about how digital platforms are reshaping traditional business models, influencing consumer behavior, and concentrating economic power - prompting us to consider whether this shift truly benefits small enterprises or primarily empowers large tech-driven entities and investors.

## Application and Website Designs: UX and UI Designs

Previously, only the global brand's official websites appeared online to run the company's e-commerce business because they could carry the high cost of back-office system operations to save tremendous data such as corporate data, product catalogs, goods baskets, payment systems, marketing activities, customer's data, logistic systems, tracking systems, and customer service, etc.

The emergence of Web 3.0 has marked the era of big data, cloud computing, applications, and the Internet of Things (IoT) (Chardnarumarn, J., Kantathanawat, T., & Sukkamart, A., 2023). It has become easier for entrepreneurs to establish official websites for their brands, serving as e-commerce channels. This is largely due to the replacement of traditional websites with cloud-based applications, which are operated through both virtual and physical servers rather than physical servers alone (Sharif, O. O., & Sudirman, I. D., 2024). As a result, data browsing and real-time interaction on wireless devices—such as mobile phones and tablets—have become more agile and efficient (Peters, J., & Gerstner, T., 2024).

The rapid development of mobile and tablet technology enables users to consume content more quickly and spend less time on each interaction. Therefore, it is crucial for application designers to capture users' attention for as long as possible and to understand how user experience varies by age and activity. These insights serve as valuable resources for those seeking to leverage AI-driven learning analytics in education (Nuangchalerm, P., 2023). By applying principles of consumer insight, designers can enhance user engagement, for example, by incorporating features that address pain points with intuitive, user-friendly solutions.

Apart from impressive features, the user interface has to interact effectively with the users with several meaningful components: buttons, illustrations, captions, text-input boxes, color tones, and graphic designs.

Malewicz (2021) claimed that the introduction of Metaverse in 2021 could disrupt the traditionally communicative platforms. Additionally, in 2021 she compiled numerous popular patterns of the user interface expected to be used in the future as follows.

- Minimalism and simplification patterns are most frequently used among large corporates who need clear communication to create credence.
- Brutalism includes vivid colors and large typograph letters expressing the dynamic power.
- Glass morphism is the blurred-edged pictures like seeing through the translucent glass.
- Aurora backgrounds look like cosmic light giving the feeling of floating among the starry atmospheres.
- Holographic and Neon lights are suitable for inauthentic pictures, imagery stories, cyber distorted images, Metaverse glowing surfaces, virtual reality, and hologram interfaces.
- Eco-conscious style with edged pictures on the light-color background is usually seen in daily life giving friendly, clear, and direct expressions.
- Wild typography is mainly focused to deliver clear messages with charming attributes among pictures or graphics.
- 3D materials and clay morphism portray characters who narrate the story on the 3D backgrounds with distant directions, light, and shadow.
- NFT and democratization of art do not exist in the reality but are created to express identity.
- A glimpse into VR and Metaverse is created to replace the real objects.

## **The Principle of Creative Marketing with the Local Wisdom**

The design field has been the driving force behind major corporations and organizations that are pursuing a competitive edge in their respective industries since the Industrial Revolution. Regrettably, the pursuit of increased market share by corporations within a high capitalism framework has led to long-term repercussions, including unequal power and income distribution, social, monopolistic, and monopsonistic inequities, and excessive materialism. (Ndovela, Xolisa, Folasayo Enoch Olalere, and Michelle Claire Reynolds. 2022).

Rattanasuwan and Srichanya (2011) provided a comprehensive account of the evolution of marketing trends over various time periods. The development of marketing began with a product-centric approach, which subsequently transitioned to a customer-centric approach and, ultimately, a human-centric approach that prioritized emotive appeal. This resulted in the emergence of creative marketing, a form of marketing that involves the collaboration of manufacturers and consumers to bring imagination and innovation to life. Novel features were developed to cater to the requirements of various consumer groups through the implementation of market segmentation. Imagination and intelligence are the foundations of successful creative marketing. Even though the product offerings are similar, it is essential to diversify marketing strategies to generate new demand from consumers. This strategy enhances brand recognition and establishes a competitive edge through enhanced pricing strategies. In addition, innovative marketing strategies are indicative of the consumers' individual preferences, occupations, and unique characteristics.

The local wisdom concept was exemplified by Kotler (2012) in the phrase "Think ASEAN," which posits that the integration of political, economic, social, and cultural aspects has led to the development of strength and unity among countries. Asian countries enjoyed a variety of benefits, including borderless trading, a plethora of laborers with reasonable wages, and a low cost of materials. Furthermore, it is

unavoidable that the local wisdom and cultures are the valuable assets that can be promoted as premium products with intangible value assets, even though they can be persuasive and sincere. These may be referred to as “Soft Power.” Kotler additionally noted that the Glorecalization Mindset, which is a fusion of the term’s “globalization” and “localization,” is an additional concept that can be employed to elevate local commerce to the global market. This mentality encompasses a coordinated regional strategy, customized local tactics, and consistent global value. It is imperative to emphasize the local identity through community collaboration to elevate the local brand to a world-class standard.

## Methodology

Qualitative research methodologies are implemented in the investigation. Data acquisition commences with the evaluation of design components and application patterns. Mainstream application formats were identified from 47 samples, based on the primary source by Malewicz (2021). After that, seven graphic design specialists; four graphic designers from an advertising agency, two web developers from an application design firm, and one digital design lecturer from a multimedia design department. will assess the gratification of utilizing the prototype application. Consequently, Analyze the data to ascertain the average of the most frequently employed application formats. The average of the design components. The research procedure is as follows:

1. Compile applications that are widely used and popular to assess application patterns. From the source that is being assessed for its usage. This approach was referred to as “Best practice evaluation.”
2. Assess the appropriateness of the graphic design elements for the intended audience of processed agricultural products in the application. Expert evaluation was the term used to describe this approach.

## Samples of research

Samples of research consisted of popular application formats used as mainstream, with 47 samples referenced from the primary source of Malewicz (2021). In addition, the participants included an Application Designer and UX/UI Specialist, as well as 4 Graphic Designers from an advertising agency, 2 Web Developers from an application design firm, and 1 Digital Design lecturer from the department of multimedia design.

## Research tools

Research tools included a checklist for data collection on popular and mainstream application formats. The 47 examples covered illustrations, letters, text, colors, sizes and proportions, symbols and patterns, and graphics. In addition, an interview form was used to collect data from application design experts.

## Data collection

Data collection was conducted through a content investigation using the best practice evaluation process, in which 47 examples were examined, including illustrations, letters, text, colors, sizes and proportions, symbols and patterns, and graphics. In addition, in-depth interviews were carried out with application design experts to gather further insights.

## Data analysis

Data analysis involved the identification of best practices by examining proven methods or strategies that have been successful in achieving the desired outcomes, both within organizations and through external benchmarking. Additionally, an in-depth interview with an expert was conducted to provide comprehensive and focused insights into the specific subject matter or area of expertise.

## Research Results

### Section 1: The Features of The Popular Application Patterns

After evaluating 47 popular patterns, the experts identified three features that are common among them: 1) minimalism and geometric forms, 2) eco-conscious style combining photography and graphics, and 3) glass morphism and gradients with soft shadows.

### Minimalism and Geometric Forms are Simple Designs Where Details are Removed to Deliver a Clear Message.

The design is well-organized using a grid system, with bright and vivid colors featuring intense-colored typography and a soft-colored background to help the audience better understand the context, as shown in Figure 1. The characteristics of the application can be listed as follows:

- Minimalism and simplification where detail has been removed.
- Neumorphism (New + Skeuomorphism) creates a novel perspective by placing curve-edged shapes instead of traditional geometric forms.
- Bauhaus Style derived from Bauhaus architectural style illustrates a systematically organized pattern.
- Abstract and geometric forms.

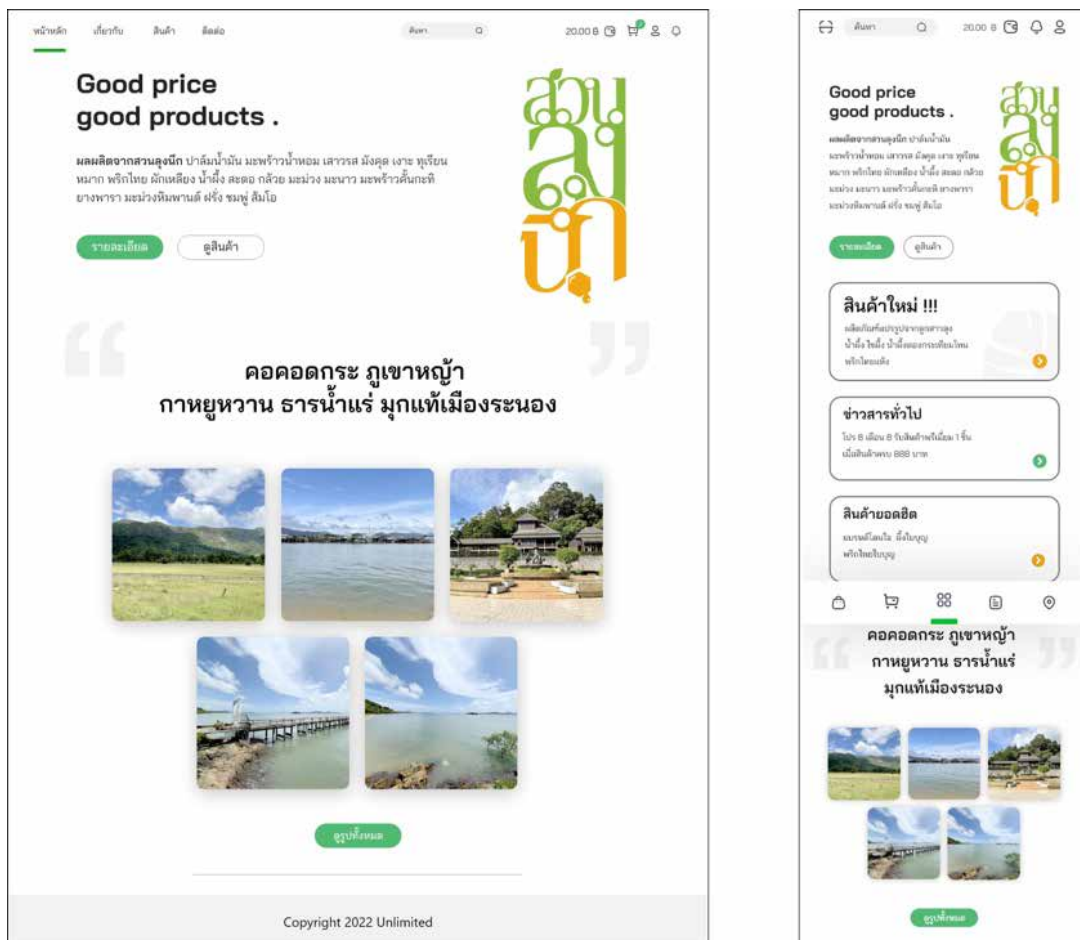


Figure 1: Home Page Design of Website (Left) and Mobile Application Design (Right)

## Photography with Graphics in an Eco-Conscious Style.

This style focuses on communicative efficiency by creating harmony between pictures and product descriptions. Large photos and vivid graphics are primarily used on the design platform, along with a soft-toned background that is easy on the eyes, as shown in Figure 2. The characteristics can be categorized as follows:

- Integrating typography or graphics into the photo
- Eye-comforting photo with soft-toned light enlarging the photo
- Fabulous product photo-oriented
- Eco-conscious style: Hard-edged photo with soft-toned background.



Figure 2: Mobile Application Design with Integrating Typography or Graphics into the Photo

## Glass Morphism and Gradients with Soft Shadows

These features give the application a dynamic look with blurred parts, thin edges, and toned grading, along with soft shadows under the object. The focused object appears to be floating in the air, giving a sense of expansion, perspective, and visual hierarchy without limitations, as shown in Figure 3. The characteristics include the following:

- A Few Gradients: Grading tones from soft to dark with a thin border.
- Glass morphism: a blurry object with diffusion layers like frosted glass.
- Soft shadows, layers, and floating elements make the object look like floating in space with multi-layers of soft shadows underneath.

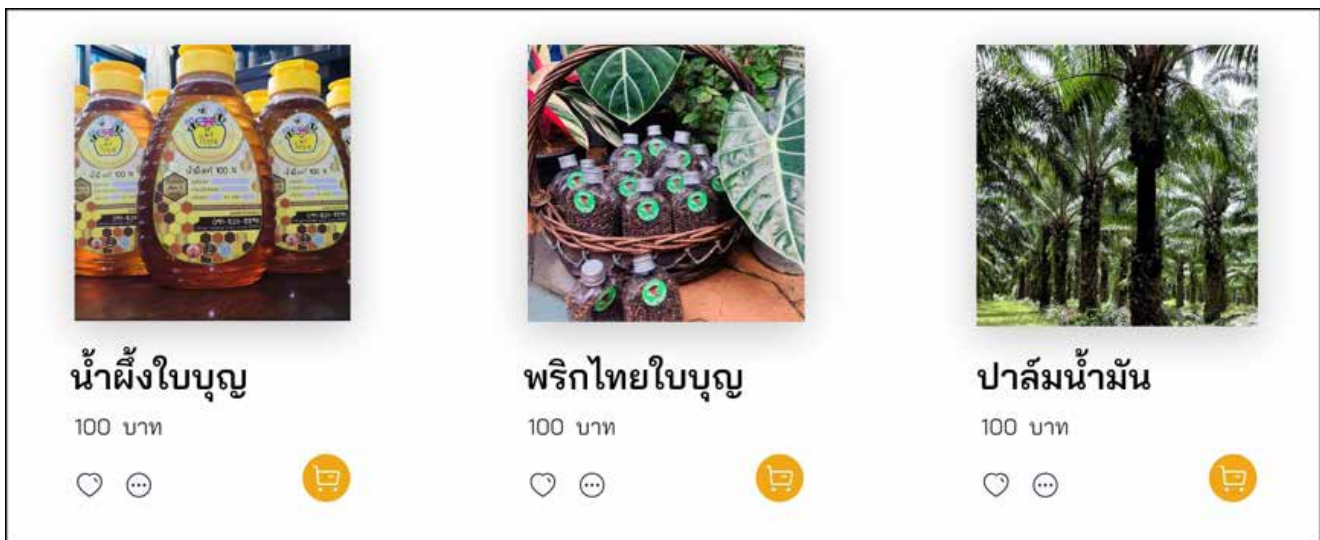


Figure 3: Mobile Application Design with Soft Shadows, Layers, and Floating Elements

To support the results, Table 1 represents the satisfaction levels of the three selected popular applications: 1) Minimalism and Geometric Form had high satisfaction levels, 2) Photography with Graphics in Eco-conscious Style had the highest satisfaction levels, and 3) Glass Morphism and Gradients with Soft Shadows had high satisfaction levels.

Table 1: Satisfaction Levels of the Popular Application Features

| Application Features |                                                  | Satisfaction Levels |       |         |
|----------------------|--------------------------------------------------|---------------------|-------|---------|
|                      |                                                  | S.D.                | Level |         |
| 1.                   | Minimalism and Geometric form                    | 4.43                | 0.79  | high    |
| 2.                   | Photography with graphics in Eco-conscious style | 5.00                | 0.00  | highest |
| 3.                   | Glass morphism and Gradients and soft shadows    | 4.14                | 0.90  | high    |
| 4.                   | Brutalism                                        | 2.29                | 1.38  | little  |
| 5.                   | Aurora backgrounds                               | 2.43                | 0.53  | little  |
| 6.                   | Holographic / Neon                               | 2.14                | 0.38  | little  |
| 7.                   | Wild typography                                  | 2.14                | 0.69  | little  |
| 8.                   | Clay morphism 3D                                 | 2.00                | 0.82  | little  |
| 9.                   | NFT / democratization of art                     | 2.00                | 0.58  | little  |
| 10.                  | A glimpse into VR and Metaverse                  | 2.29                | 0.76  | little  |
| Total                |                                                  | 2.89                | 0.32  | Medium  |

Significant differences at  $\alpha=0.05$ .

## Section 2: Graphic Design Elements

The suitable application features for processed agricultural products are listed as follows.

### Minimalism and Geometric Forms.

During the design process, two characteristics have been created.

- Modern pattern enhances the clear simple look with visually friendly attributes. Non-headed Thai letters are used as they are suitable for the sharp edge design conveying a sense of strength.
- Romantic pattern enhances the elegant and delicate looks. The display-style font can express the liveliness of the design, as seen in Figure 4.



Figure 4: Mobile Application design with Minimalism and Geometric Styles

### Photography with Graphics in Eco-Consistent Style.

Two characteristics can be created as follows.

- Casual Style promotes the senses of relaxation, lively, and joy. Non-headed letters are used to enhance an unofficial style along with friendly and natural feelings.
- Modern Style promotes the reality look taking place at the present time with sensible and reliable senses. The headed letters are used to enhance the official, urbanized, sturdy, and earnest feelings, as seen in Figure 5.

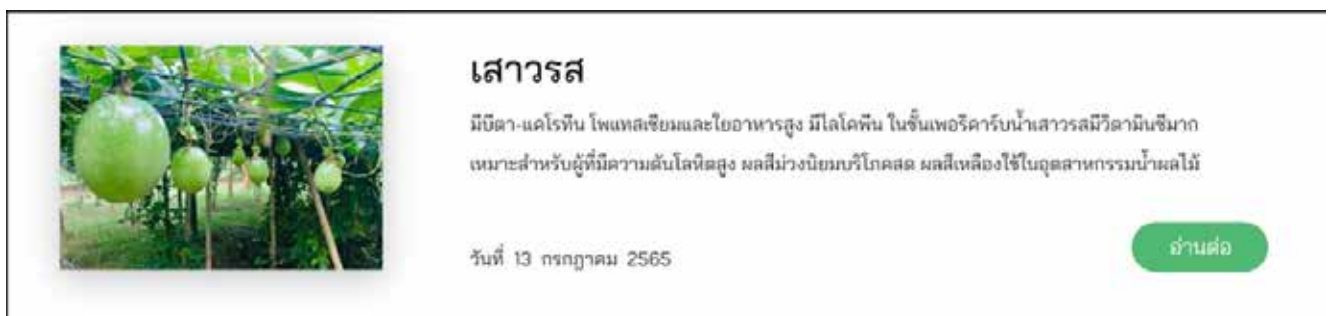


Figure 5: Mobile Application Design with Graphics in Eco-consistent Style

## Glass Morphism Gradients with Soft Shadows.

Two characteristics can be created as follows.

- Modern characteristics promote futuristic and technological looks giving a sense of mysterious dimensions. Non-headed letters can raise the contemporary feeling ready for change.
- Elegant characteristics enrich the senses of secret and delicate charming. Hand-writing letters promote impulsive, sentimental, joyful, and youthful senses, as seen in Figure 6.



Figure 6: Mobile Application Design with Glass Morphism and Gradients with Soft Shadows

To support the results, Table 2 would represent the evaluation of characteristic styles categorized in application patterns as are 1) Minimalism and Geometric form consists of Modern and Romantic style, 2) Photography with graphics in Eco-conscious style consists of Modern and Casual style, and 3) Glass morphism and Gradients and soft shadows consists of Modern and Elegant style.

Table 2: Evaluation of Characteristic Styles Categorized in Application Patterns by Experts

| Characteristic Styles | Application Patterns          |      |                                                  |      |                                               |      |      |
|-----------------------|-------------------------------|------|--------------------------------------------------|------|-----------------------------------------------|------|------|
|                       | Minimalism and Geometric form |      | Photography with graphics in Eco-conscious style |      | Glass morphism and Gradients and soft shadows |      |      |
|                       | Mean                          | S.D. | Mean                                             | S.D. | Mean                                          | S.D. |      |
| 1.                    | Casual                        | 3.14 | 0.38                                             | 4.71 | 0.49                                          | 2.43 | 0.53 |
| 2.                    | Modern                        | 5.00 | 0.00                                             | 5.00 | 0.00                                          | 5.00 | 0.00 |
| 3.                    | Romantic                      | 4.43 | 0.53                                             | 1.86 | 0.38                                          | 1.86 | 0.38 |
| 4.                    | Natural                       | 1.86 | 0.38                                             | 2.29 | 0.49                                          | 2.14 | 0.38 |
| 5.                    | Elegant                       | 1.29 | 0.49                                             | 1.57 | 0.53                                          | 4.43 | 0.53 |
| 6.                    | Chic                          | 1.29 | 0.49                                             | 2.00 | 0.58                                          | 1.71 | 0.49 |
| 7.                    | Classic                       | 1.71 | 0.49                                             | 1.86 | 0.38                                          | 1.71 | 0.49 |
| 8.                    | Dandy                         | 2.29 | 0.49                                             | 1.71 | 0.49                                          | 2.00 | 0.58 |
| Total                 |                               | 2.63 | 0.14                                             | 2.62 | 0.22                                          | 2.66 | 0.21 |

Significant differences at  $\alpha=0.05$ .

### Section 3: Satisfaction Levels from the Protocol Application

#### Photography with Graphics in an Eco-Conscious Style.

Photography with graphics in an eco-conscious style proved to be the most popular among the target users. This style presents the product in a realistic appearance and is suitable for processed agricultural goods. Additionally, this style aligns with the behavior and lifestyle of the target group. The satisfaction level of the application elements for this style differed between the Graphic Designers and the Web Developers. The Graphic Designers preferred the 'Romantic Pattern' as it enriches the look with simple elegance, softness, and delicacy, while the headed letters promote a sense of official, sturdy, and earnestness. Computer-generated pictures convey a sense of over perfectionism, reflecting the urban taste of residents who focus on life-readiness, as shown in Figure 7.



Figure 7: Mobile Application Design with Photography with Graphics in an Eco-Conscious Style

#### Minimalism and Geometric Styles.

Minimalism and Geometric styles are the second most popular patterns voted by the experts because of their simple and organized looks. Nonetheless, the details of local identity might refrain from the presentation of local wisdom. The use of headed letters in a modern characteristic enables the context to be more official and directive. Authentic photos can enhance the clearer message, as seen in Figure 8.



Figure 8: Mobile Application Design with Minimalism and Geometric Styles

## Glass Morphism and Gradients with Soft Shadows.

These styles were rated as the least popular because of their floating and dynamic features. Nevertheless, these features might obstruct the clear message. The characteristics of chic and casual along with hand-writing typography can promote the joy and amusement of the application and reduce the official look. As well as this, the created picture can convey an imagination breaking the traditional principle, as seen in Figure 9.



Figure 9: Mobile Application Design with Glass Morphism and Gradients with Soft Shadows

To support the results, Table 3 would represent the satisfaction levels from using those 3 selected protocol applications as are 1) Minimalism and Geometric form as high satisfaction levels, 2) Photography with graphics in Eco-conscious style as the highest satisfaction levels, and 3) Glass morphism and Gradients and soft shadows as high satisfaction levels.

Table 3: Satisfaction levels from using the protocol application

| Application Features |                                                  | Satisfaction Levels |       |         |
|----------------------|--------------------------------------------------|---------------------|-------|---------|
|                      |                                                  | S.D.                | Level |         |
| 1.                   | Minimalism and Geometric form                    | 3.96                | 0.79  | high    |
| 2.                   | Photography with graphics in Eco-conscious style | 4.33                | 0.75  | highest |
| 3.                   | Glass morphism and Gradients and soft shadows    | 3.86                | 0.81  | high    |
| Total                |                                                  | 4.05                | 0.49  | high    |

Significant differences at  $\alpha=0.05$ .

## Discussion and Conclusion

This study's results validate the efficacy of eco-conscious graphic photography in product advertising. The design methodology corresponds with the principles of environmentally aware consumers and favorably affects their behavior and perceptions. Companies can employ this approach to present their products in a realistic and eco-friendly manner, thereby augmenting their brand image and reputation. Eco-conscious photography with graphics is a creative methodology that adeptly showcases things in a realistic and sustainable manner. The style corresponds with the principles of environmentally aware consumers and favorably affects their behavior and perceptions. Businesses can employ this approach to display their products and elevate their brand image and reputation. Future

research may investigate the influence of this style on sales and revenue, as well as evaluate its efficacy relative to other environmentally sustainable design methodologies.

Eco-conscious photography combined with graphics has been identified as the most favored among the target demographic due to its effective product presentation. This differed from the perspective of the experts, who ranked minimalism and geometric forms as their foremost preference due to their simplicity and well-organized appearance, but with a lack of intricate detail. The disparity in viewpoints between the target group and the specialists arises from the divergent perspectives rooted in the users' experiences and the designers' insights. Furthermore, communicative style, preferences, lifestyle, experiences, occupation, and geography can influence various outcomes. Kotler (2012) posits that local marketing should prioritize the needs of the local community. Yaipairoj (2019) asserted that exceptional service constitutes a remarkable experience for all customers. In addition to accountability, packaging, and an exceptional image.

Photography combined with graphics in an eco-conscious aesthetic has become a prevalent design trend among the intended audience. It showcases the product in a realistic manner and is appropriate for processed agricultural commodities. This design approach forecasts the behavior and lifestyle of the target demographic, offering an aesthetic that corresponds with their values and interests. The photographic image was once a technical artifact, but rapid technological progress has transformed it into a digital entity. (Marotta, Thomas, and Ashley Holmes. 2020).

The satisfaction levels of graphic designers with the application parts of this style vary from those of digital designers. The target group evaluated the 'Romantic pattern' more favorably than others, as it enhances the appearance of simple elegance, softness, and delicacy, while the headed letters convey a sense of formality, robustness, and sincerity. Computer-generated images evoke a sense of excessive perfectionism, reflecting the urban aesthetic of citizens who prioritize life-readiness and flawlessness.

This design style can be efficiently employed in marketing processed agricultural products to the intended audience. The authentic presentation of the products, along with an aesthetic that resonates with their beliefs and interests, might enhance their interest and propensity to purchase.

Glassmorphism and gradients with subtle shadows have become a prevalent design trend, providing a distinctive and visually captivating appearance that engages users. This design style's dynamic characteristics, including blurred elements, slender edges, and nuanced gradation with gentle shadows, foster a perception of expansion, perspective, and visual hierarchy without constraints. The central object seems to hover in the air, imparting a sense of depth and three-dimensionality to the composition.

This design style is characterized by its dynamic and fluid appearance, along with a clear sense of visual hierarchy and expansion. It has been well received by both experts and target users, who appreciate its modern and innovative look. The growing popularity of glassmorphism and gradients with soft shadows suggests that this style should be further explored and applied across various design applications. Its ability to create a visually striking and unique aesthetic can help businesses differentiate themselves from competitors and capture the attention of their target audience.

In conclusion, the use of glassmorphism and gradients with soft shadows contributes to a visually compelling and modern aesthetic that is both dynamic and engaging. Its growing popularity indicates that it will remain a significant trend in the

design industry and merits further exploration by both designers and businesses. In the realm of graphic design, incorporating casual characteristics can foster a sense of relaxation and joy, while informal letterforms add a friendly tone. At the same time, modern design elements help convey reliability and sincerity. Headed letters, in contrast, reinforce a formal and contemporary appearance, aligning with the current urban context. These observations are supported by Kobayashi (1990), who emphasized that visual design should reflect the character of a product through elements such as color tones and overall atmosphere.

Furthermore, satisfaction results from expert designers revealed a preference for applications that combine photography with eco-conscious graphic elements. This preference appears to align with their personal lifestyles, suggesting that sustainable aesthetics resonate strongly within this professional group. This finding supports Cath (2019), who highlighted the value of audience-specific research, particularly studies conducted or commissioned to gain deeper insights tailored to a specific project's needs.

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