

STUDY UNIQUENESS OF MARIGOLD FLOWERS TO DESIGN WOMEN'S BAGS ACCORDING TO THE CONCEPT OF CREATIVE ECONOMY

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ABSTRACT

This research aims 1) to study the characteristics and shapes of calendula used for the design of bags for women, 2) to design women's bag products based on marigold patterns, and 3) to evaluate the satisfaction of consumers with the product. Research methods to design bags from marigold patterns with a population group of women in Lat Krabang District, the population statistics, obtained from the house registration office level in Lat Krabang District, Bangkok, for the year 2023, were 16,123. The sample group comprises women from Lat Krabang District, Bangkok (Population Statistics from House Registration, Registration Office Level, Area, Lat Krabang District, Bangkok, 2023) with confidence of 95 percent by randomly sampling 35 people. The researcher studied the observed variables and measured the 5-level Likert rating scale for 10 questions, assessing the quality of the research instrument by considering the accuracy of the questionnaire in relation to the question and the objective. The research revealed that the level ($\bar{X} = 4.76$; $SD = 0.40$) had the highest level of satisfaction, ranking from first to third in terms of product satisfaction. The second place is that the product has strength and durability at the level ($\bar{X} = 4.91$; $SD = 0.28$), and the third place is that the product has bright colors that match the characteristics of the marigolds at the level ($\bar{X} = 4.71$; $SD = 0.45$).

Keywords: Marigold patterns, Calendula, Women's Bags, Creative Economy

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I. INTRODUCTION

In today's rapidly evolving global and fiercely competitive economy, companies need to innovate continuously. Innovation is now recognised as one of the most successful strategies for profitable growth, capturing market share, and even the means of surviving (Hamel, 1998, pp.7-14). Product innovation is a key factor of enterprise innovation, and creative design is the core of product innovation.

How do designers conduct a creative design? What factors affect creative design? How could designer's creativity be enhanced? Many researchers all over the world have done a great deal of work from different perspectives of knowledge (Benami & Jin, 2002, pp. 251-263; Hori, 1997, pp. 29-35; Kitamura et al., 2004, pp. 115–127; Richards & Simoff, 2001, pp. 121–136; Watson & Perera, 1997, pp. 59–87), psychology (Hsiao & Chou, 2004, pp. 421–443; Thompson & Lordan, 1999, pp. 17–31) and theory of inventive problem solving. However, those methods still have such-and-such limitations for carrying out creative design practically. Moreover, traditional design methods mainly focus on products or technical systems themselves and seldom recognise and plan the design process from the viewpoint of creative cognition approach.

The purpose of this research was to study the shape characteristics of marigolds used for the design of women's bags to design women's bags from marigold patterns and to evaluate the satisfaction of consumers with women's bags from marigold patterns. For use in the design of product patterns on bags, consumer data is studied, including: 1. Study information about the characteristics of marigolds. 2. Study the behavior of buying bags. 3. Learn about the bag. 4. Learn about the bag's material. 5. Study the design principles, and 6. Study related research.

Moreover, by 2025 in the market of bags, backpacks, bags and luggage in the downstream market, the demand for women and men is almost the same. While in high-end markets with higher purchasing power, female consumers are prominent, and the trend of market development should be eco-friendly style is becoming more and more popular. The research for this product design stems from the issue that no marigold patterns have been created before, despite the marigold flower's significant role in Thai culture and its status as the royal flower of His Majesty the King. Because the marigolds are bright yellow to match "Monday," which is the day of His birth, it is like His beautiful life.

These problems have had a negative impact on the population in Thailand lacks detailed knowledge about marigolds, and if these issues are not addressed, it will negatively impact consumers. The population in Thailand will still know the importance of marigolds.

In summary, if this research is successfully conducted, it will benefit consumers by enhancing their satisfaction with usability and aesthetics. Marigold bags and the social benefits of creating new patterns have inspired people in society and the economy to create new women's bags. Therefore, the researcher and product creator have conducted systematic research to find an industrial product model that is suitable and in line with consumers' needs and the context of the problem.

II. CONCEPTUAL FRAMEWORK

2.1 The researcher uses a conceptual framework in design with the principles of product design (Saribut, 2007, pp. 18-19). There are 12 points, and the researcher has applied only 4 points in this research: (1) aesthetics; (2) material; (3) durability; and (4) usability by applying the principles of design elements to the product design process. Marigold Pattern Bag

2.2 The researcher used a conceptual framework to assess consumer satisfaction with the newly designed product. The buyer decision-making process (Kotler and Armstrong, 2011, pp. 79-82) includes (1) problem/need recognition, (2) information search, (3) evaluation of alternatives, (4) purchase decision, and (5) post-purchase behavior.

III. RESEARCH METHODOLOGY

3.1 The research method for objective 1 involves examining the characteristics. The researchers studied the botanical characteristics of marigolds and designed bags from marigold patterns according to the details of the research process. as follows.

- a) The variable studied was the level of satisfaction of women in Lat Krabang District, Bangkok
- b) The population group is a group of women in Lat Krabang District, Bangkok (Population Statistics from House Registration, Registration Office Level, Area, Lat Krabang District, Bangkok, 2023) 16,123
- c) The sample group is a group of women in Lat Krabang District, Lat Krabang District. We used Robert V. Krejcie and Earyle W. Morgan's (1970) formula for figuring out the number of samples (Krejcie & Morgan, 1970, pp. 607-610) to find the confidence level at 95% by picking 35 people at random (accidental sampling).
- d) Research tools, such as questionnaires, are utilized to study the content. The Rating Scale is a tool used by researchers to collect data from samples of people.
- e) Data analysis is the analysis of documents by systematic review (SR) and descriptive statistics by determining frequency, percentage, mean, and standard deviation (SD), etc.

3.2 Method of conducting research objective 2 To design bags for women from marigold patterns, the researcher evaluated consumer satisfaction with the design of bags from marigold patterns according to the details of the research process. as follows.

- a) The primary variable is a bag product made from a newly designed prototype marigold pattern.
- b) The population group is a group of women in Lat Krabang District, Lat Krabang District. Bangkok Province: 16,123 people
- c) The sample group is a group of women in Lat Krabang District, Lat Krabang District. We used Robert V. Krejcie and Earyle W. Morgan's (1970) formula for figuring out the number of samples to find the confidence level at 95% by picking 35 people at random (accidental sampling).
- d) Research Tool: A questionnaire with a satisfaction assessment consisting of 10 assessments in the study of marigold identity for bag design is a 5-level evaluation (rating scale) tool used by the researcher to collect data from a sample.
- e) Data analysis involves the determination of percentages, means, and standard deviations (SD), among other descriptive statistics.

IV. RESULTS

4.1 Objective Result 1: By conducting a preliminary data study, preliminary data collection is shown. as follows.

The process involves studying basic information on consumer needs. It was found that consumers have a demand for bag products with patterns that respond beautifully to women's needs. Before designing the product, it should take into account 1) taste, 2) price, and 3) materials used in production, and then use the basic information obtained to analyze it with techniques. Here is a detailed SWOT analysis of three case studies:

a) The first comparative product case study has the following features: 1) The brand is famous. 2) It has a large customer base. 3) It is the only bag with brand print in the world. 4) The bag boasts high-quality materials. The disadvantages are 1) it is expensive, 2) the bag has a strong smell, and 3) the design is quite old. This has led to an increase in options in the market. There are more choices for consumers.

b) The second comparative product case study has the following advantages: 1) Beautiful bag design 2) Meticulous design of patterns and production 3) Affordable and affordable 4) Fine tailoring and beauty The drawbacks include 1) reduced use of color, 2) a smaller customer base, and 3) a lack of brand awareness among customers. 4) The design is quite old. 5) The design emphasizes one that responds to consumers who are quite old. The opportunities include being 1) affordable, 2) catering to a higher consumer income rate, 3) offering multi-channel ordering, 4) offering cheap bags, and 5) offering more than one bag.

2) Consumers prefer to buy branded products from abroad rather than in their own country. 3) Younger consumers (teenagers) are less likely to use this type of bag.

c) The third comparative product case study has the following features: 1) The bags are beautiful; 2) the colors are bright; 3) the color patterns are diverse and novel; and 4) the design is suitable for the style of dress and age range. The opportunities are: 1) There is a variety of bag shapes, 2) it is cheaper than the income level of consumers, and 3) there is a collection. 4) You can order through multiple channels. 5) The bag is cheap; you can buy more than 1 bag. 2) Consumers prefer to buy branded products from abroad rather than in their own country.



Figure 1: Case study with neighboring products compared with SWOT analysis technique.

Source: (Seiset et al., 2023)

2) The process of analyzing and finding solutions to consumer needs with the Quality Function Deployment (QFD) technique reveals 24 problems that need to be solved, and the product researcher has proposed 24 solutions to solve the problems that appear.

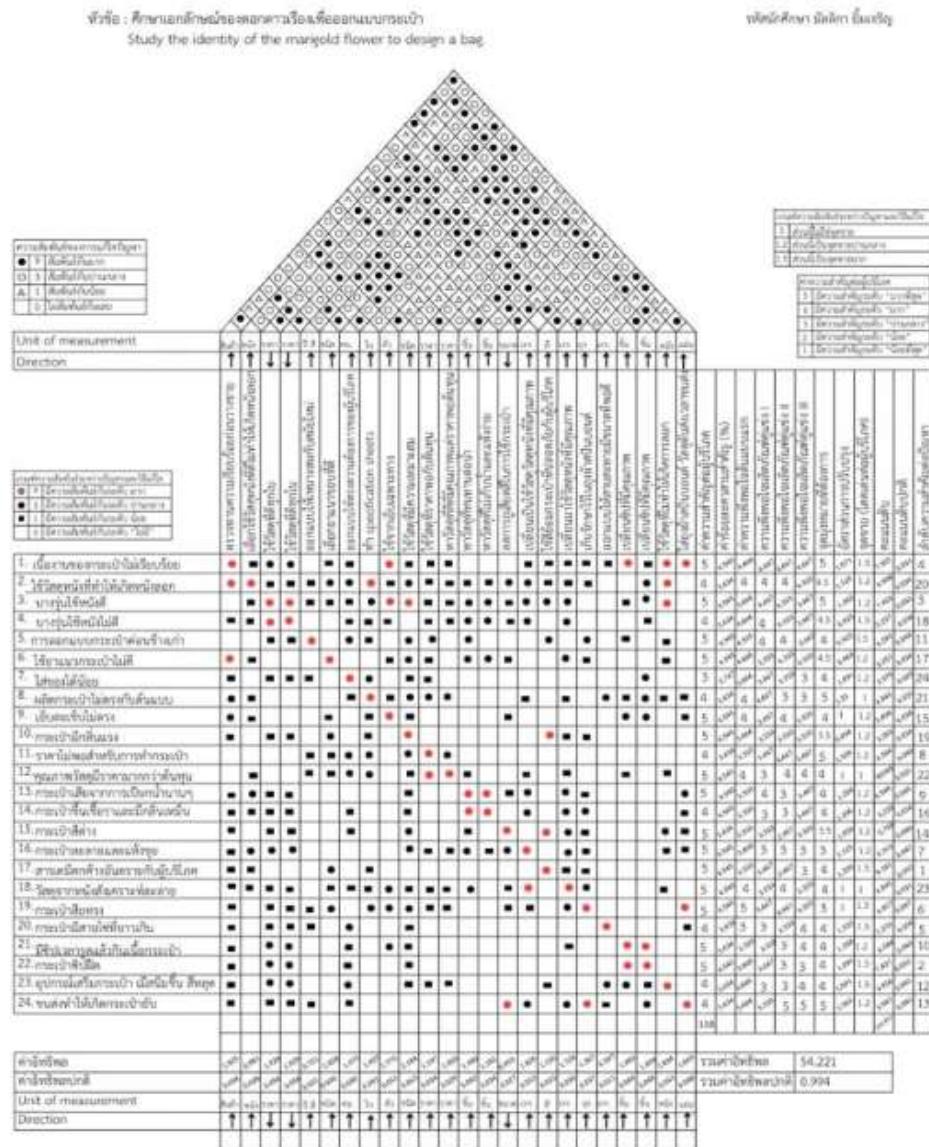


Figure 2: Quality Function Deployment (QFD) Analysis Process

Source: (Seviset et al., 2023)

Using the QFD technique, we identified the first five solutions in descending order.

- 1) The first major solution is that the bag has a strong smell. Normal Influence Score (0.062).
- 2) The second major solution is that the bag work is not neat, and the influence score is normal (0.056).
- 3) The third major solution is that the bag is melted and dried, flaky, and the influence score is Normal (0.034).

- 4) The fourth major solution is that the bag design is quite old. Normal influence score (0.021).
- 5) The fifth major solution is that the bag has an excessively long chain and has a normal influence score (0.011).

Then, the researcher created a bag product from a marigold pattern and brought the solution to the problem that consumers want into the creative stage from "abstract problem-solving features" to "concrete problem-solving features" design. To present new product design guidelines with the sample technique,

3) New product creation process with SCAMPER: The researcher presented the results of the analysis and created a new product through fusion. "Problem Solving Guidelines on New Products" enters the product design stage by applying the conclusions of the 24 qualitative function distribution techniques to be refined and applied together before the product design stage. SCAMPER is creating creative ideas classified into 7 creative items.



Figure 3: Creativity based on the SCAMPER concept design concept. Source: (Seiset et al., 2023)

4) The process of summarizing design results that apply the SCAMPER technique: By integrating the seven principles together, it can show the results of creating or designing a new product. as in the picture of the new design that is integrated in bringing all 7 parts together into a new product model and a new product development image (design development).

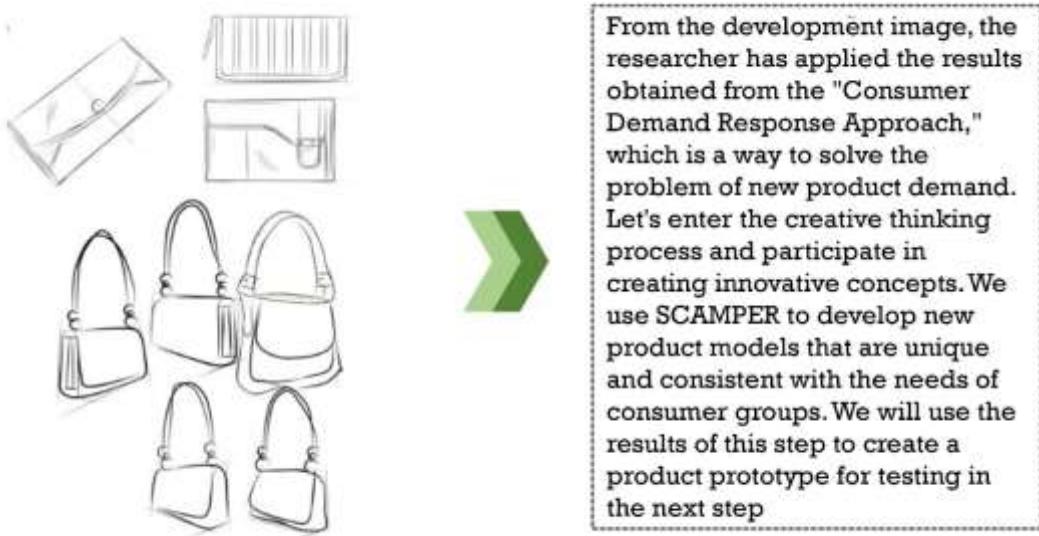


Figure 4: Integrating the 7 parts together into a "new product model" and design development.

Source: (Seiset et al., 2023)

5) The design process of the handbag product features marigold patterns with golden-yellow flowers, whose petals are arranged in a very beautiful and orderly manner (Kasemsap, 2015, pp. 393-394). The researcher presented three sketch design concepts to showcase ideas that integrate problem-solving approaches derived from the application of QFD and SCAMPLE analysis techniques. This development of a systematic creative thinking approach involved organizing the design thought process as follows:



Figure 5: Sketch the design of three styles of bag products from Marigold patterns.

Source: (Seiset et al., 2023)

6) The process of producing a prototype of a bag product from a marigold pattern by the researcher and creator has carried out the prototype production with the following steps: 1) Step 1: Product sketch step, 2) Product material search stage, 3) Pattern screen stage. 4) The production process of bags, etc., by which the researcher can present a prototype image of the finished product. as follows.



Figure 6: A prototype of a bag product made of a marigold flower pattern.

Source: (Seiset et al., 2023)

7) The trial process was conducted by a consumer group, specifically the women's group in Lat Krabang District, Bangkok Province. When consumers use it, it appears that the product is suitable and in line with their needs. The appropriate application process expresses this. It can show how consumers use the prototype product, as follows.



Figure 7: Shows the application of a consumer product prototype using sesame in real-world settings.

Source: (Seiset et al., 2023)

Summary of the results of the study on the design and creation of bag products from marigold patterns. The design study revealed facts derived from testing a new prototype product using the SWOT analysis technique. Newly developed prototype products include:

- a) The highlights of the new product include: 1) product aesthetics and style bag 2) Unique pattern
- 3) Easy to care for and durable.
- b) Disadvantages of new products include: 1) Less storage compartment
- c) Opportunities for new products include: 1) Patterns, 2) Fashion trends, 3) Novelty.
- d) Risks of new products include 1) taste and 2) competitors.

4.2 Objective Result 2: The prototype product is used to evaluate the level of consumer satisfaction, including: 1. The product has bright colors in line with the characteristics of marigolds. 2. The product has beautiful patterns. It shows the uniqueness of marigolds appropriately. 3. The product's shape makes it suitable for both holding and crossbody use. 4. The product's material is easy to clean. 5. The product's material is safe for consumers. 6. The material of the product can prevent wetting. 7. The product is strong and durable. 8. The product has a strong bag structure and does not deform the bag. 9. The number of compartments in the bag is appropriate. 10. Personality enhancement comes from evaluating the level of consumer satisfaction after using a new product. Data is collected from a quality-structured questionnaire, adhering to the specified benchmarks. The results of the satisfaction level are shown in Table 1.

Table 1: Results of Satisfaction Evaluation of New Prototype Product Bags from Marigold Pattern.

Number	Satisfaction Assessment List	\bar{X}	SD	Rank
1.	The product has a bright color, in harmony with the appearance of marigolds.	4.71	0.45	6
2.	The product has a beautiful pattern. It shows the uniqueness of marigolds appropriately.	4.94	0.23	1
3.	The product has a shape that is suitable for holding and cross bodying.	4.74	0.44	5
4.	The product's material is easy to clean.	4.66	0.47	8
5.	The product's material is safe for consumers.	4.86	0.35	3
6.	The product's material is resistant to wetting.	4.63	0.48	9
7.	The product is strong and durable.	4.77	0.42	4
8.	The product has a strong bag structure and does not deform it.	4.91	0.28	2
9.	Inside the bag, there are appropriate compartments.	4.71	0.45	6
10.	Personality enhancement	4.69	0.46	7
	Results of the satisfaction level of the New Products in overall	4.76	0.40	Most satisfied

The order of the evaluation items that received the highest satisfaction was determined based on the results of the evaluation of the level of consumer satisfaction.

The product ranks are:

No. 1 place in terms of products with beautiful patterns. ($\bar{X} = 4.94$; SD = 0.23).

No. 2 in terms of durability ($\bar{X} = 4.91$; SD = 0.28).

No. 3 in terms of product materials it is safe for consumers. ($\bar{X} = 4.86$; SD = 0.35).

No. 4 has a robust bag structure that prevents the bag from deforming ($\bar{X} = 4.77$; SD = 0.42).

No. 5 in terms of product shape suitable for holding and cross-body ($\bar{X} = 4.74$; SD. = 0.44).

No. 6 place in terms of bright colors, in line with the characteristics of marigolds ($\bar{X} = 4.71$; SD= 0.45) and the inside of the bag has a reasonable number of compartments ($\bar{X} = 4.71$; SD = 0.45).

No. 7 place in personality enhancement ($\bar{X} = 4.69$; SD = 0.46).

No. 8 in terms of materials that are easy to clean ($\bar{X} = 4.66$; SD = 0.47).

No. 9 in terms of wet-resistant materials ($\bar{X} = 4.63$; SD = 0.48).

Therefore, from the research process in the design of bag products from marigold patterns, it can be concluded that "the newly designed product is suitable and in line with the needs of the consumer group. This design meets the needs of the consumer group in terms of 1) taste, 2) price, and 3) materials used in production, all in a manner that aligns with the research goals.

V. CONCLUSION AND DISCUSSION

The results of the study in Objective 1 to study the characteristics of the shape of the calendula is used for the design of the bag for The results can be concluded that when developing product models with QFD techniques, solutions are found in descending order of the first 3 priorities: 1) The first major solution is to use all good leather models to match the price without causing comparisons. Influence Points (1.929) Normal Influence Score (0.056) 2) The second most important solution is to choose a good edge grout, and if the leather bag is torn, it needs to be replaced; the edges must be painted close to the old color. Influence Points (1.028). The third important solution is to study various plots and apply them in design to suit modern times,

with an influence score value of (0.721) and a normal influence score (0.021, etc.). The researcher then presented 3 sketch design images to present the concept that integrates the solution to the problem obtained from the application of both analysis techniques. In conclusion, a) the highlight of the new product is the pattern, b) the disadvantage of the new product is that it is not suitable for strong sun conditions, which will make the bag color pale easily. c) The opportunity of a new product is a fashion trend, d) the risk of a new product is a taste, etc. The results can be discussed that the results carried out by the researcher in the design stage are consistent with the concept of Saribut (2007, pp. 18-19). The results of the study in Objective 2 to design women's bag products from marigold patterns showed that the most satisfied consumers rated the highest to lowest satisfaction levels in 5 orders: 1st place in terms of products with beautiful patterns; it shows the uniqueness of marigolds appropriately. The most satisfied level is 2nd place in terms of product strength and durability, the most satisfied level is 3rd place in the product with bright colors, in line with the appearance of calendula, the most satisfied level. 4th place in the material of the product is easy to clean. The highest level of satisfaction. The 5th place in the material of the product can prevent water wetting, the most satisfactory level of satisfaction, etc. The results of the satisfaction level are in line with the concept of Saribut (2007, pp. 18-19). (1) aesthetics; (2) material; (3) durability; and (4) usability. The results of the study in Objective 3 The research revealed that the level ($\bar{X} = 4.76$; $SD = 0.40$) had the highest level of satisfaction, ranking from first to third in terms of product satisfaction. The second place is that the product has strength and durability at the level ($\bar{X} = 4.91$; $SD = 0.28$), and the third place is that the product has bright colors that match the characteristics of the marigolds at the level ($\bar{X} = 4.71$; $SD = 0.45$).

This study provides a solid theoretical foundation and a well-structured product design process. The results indicate that a marigold-patterned bag has strong consumers appeal, particularly in aesthetics and durability. However, to successfully launch this product commercially, it should improve material durability to prevent fading, enhance functionality by adding storage space, analyze fashion trends to ensure market relevance, and evaluate production costs for a realistic pricing strategy.

SUGGESTION

The design and creation of bags with marigold patterns have revealed that the newly developed products have weaknesses identified through SWOT analysis, which are 1) the bag colour fades easily and 2) there is limited storage space. If other product designers wish to create new designs, they should consider the aesthetics of the bags and their pricing. It should consider the approach of making the size more universal and increasing storage space and risk. From the SWOT analysis, these are 1) taste and 2) competitors. If other product designers have the desire to redesign, they should consider the approach of studying fashion trends each year and consumer demands each year. The researchers and creators of the marigold-patterned bag hope to benefit consumers in the future.

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