

APPLYING MIRYOKU ENGINEERING AND
IMPORTANCE-PERFORMANCE ANALYSIS METHODS TO THE
CREATION OF CHINESE BRIDES' PHOENIX CROWNS

Chi-Hon Lu

Graduate Institute of Cultural and Creative Design, Tung-Fang Design University,
Kaohsiung, Taiwan

Chieh-Yu Lin

Department of Fashion Styling Design, ChungYu University of Film and Arts, Kee-
lung, Taiwan

Lin-Lung Lee

LongYuan Elementary School, Taoyuan, Taiwan

Jiann-Sheng Jiang

Graduate Institute of Cultural and Creative Design, Tung-Fang Design University,
Kaohsiung, Taiwan

Ming-Hung Lin*

Department of Electrical Engineering, Cheng Shiu University, Taiwan

*Corresponding author: e122243291@gmail.com

Abstract

Along with the rapidly changing time, there are classically inherited nice elements in the modern trend, among which bridal modeling in a vintage but innovative wedding is an important subject matter in cultural creation. The design of bride's phoenix coronet modeling in Chinese culture combined with modern mixed media is applied to design three types of Chinese wedding hat, phoenix coronet, aiming to present innovative fashion style and meaning on the original imagery of phoenix coronet. To discuss the match of such a modeling design with consumers' needs and imagination, Evaluation Grid Method (EGM) in Miryoku Engineering is utilized for inducing 8 attractive factors in phoenix coronet modeling design, including innovation, theme, gorgeousness, novelty, sense of history, classical practicality, fashion trend, and cuteness & liveliness. Importance-Performance Analysis (IPA) is further used for the questionnaire survey, where 131 potential consumers' opinions are collected to analyze the importance and satisfaction of consumers' cognition of the creations. In terms of the design, traditional exquisite phoenix coronet is analyzed and then given different gorgeous styles with modern craft creation. The IPA result shows that consumers consider "theme", "gorgeousness" and "innovation" as more important attractive fac-

tors in the design of bride's phoenix coronet, but appear less attraction on "classical practicality" and "sense of history". It reveals that, even though tradition is the design element, the specificity and creativity of design are the important pursuit of designers.

Key words: Phoenix Coronet, Attractiveness Factor, Evaluation Grid Method (EGM), Importance-Performance Analysis (IPA)

Introduction

In the rapidly changing time, some people still bear in mind of timeless tradition and expect to keep up with the modern trend but remain classically inherited nice elements. Nostalgic restaurants, vintage clothing, and vintage costume therefore emerge as the times require (Liang, 2010), where a vintage but innovative wedding and focused archaic bridal modeling are covered.

There is such a scene in ancient Chinese wedding. The bride wears phoenix coronet and robe of rank, and a piece of red veil covers the phoenix coronet. The groom escorts the bride to the wedding with light firecrackers & music playing, suona playing, and a red bridal sedan chair. After completing the wedding etiquette and process, the bride gets in the room and the groom uncovers the red veil with a weighbeam or a horsewhip. After uncovering the veil, the groom would touch the hair, symbolizing "married couple". White, representing funeral or unpropitiousness, used to be a taboo color in a wedding. With cultural reform and the baptism of western culture, different thoughts emerged. In a modern wedding, a bride would wear white wedding gown and white flowers or European crown, a groom would also wear white tailcoat. White is considered as a pure and sacred color in Japan and western countries. In the alternation of generations, the elders

could slowly accept white wedding gown and white headdress flower. The lucky red color, traditional red robe of rank, a groom's red robe & gown, and red bridal sedan chair for escorting the bride to the wedding are getting desolate along with the time change. New wedding color disrupts the tradition and changes bridal modeling.

Summing up above design background, new-generation females are glad to accept diversified wedding combining western white wedding gown and oriental wedding dress for the exclusive bridal modeling. Mixed media are used in this study for designing three types of Chinese wedding hat, phoenix coronet. In addition to developing diverse characteristics with different media, innovative fashion styles and meanings are presented on the original imagery of phoenix coronet. Furthermore, Evaluation Grid Method in Miryoku Engineering (Sannui, 1996) is applied to induce attractive factors in phoenix coronet modeling design for attracting consumers. Finally, IPA (Martilla & James, 1977) is utilized in the questionnaire survey for testing the importance and satisfaction of consumers' cognition of the design.

Literature Review

Meaning of Phoenix

In ancient Chinese legend, colorful and gorgeous phoenix was a huge

auspicious bird, which did not exist in the real world, but was a sacred bird created by the ancients. Liu (2015) indicated that phoenix was regarded as the kind of birds in traditional Chinese culture. The image of phoenix, similar to dragon, became complicated. Both of them were the totem of Han Chinese and the emblazonry of the original power element of ancient art. Since Qin and Han Dynasties, dragon gradually became the symbol of an emperor (Wu, 2020), the harems and concubines were also compared to phoenix, which was gradually “feminized”.

Culture of Phoenix Coronet

Phoenix coronet is explained in official concise Chinese dictionary as crown ornament of ancient concubines which used to be referred to civilian bride’s hat. Chinese Dictionary explains in detail as ancient noblewomen’s hats with phoenix-shape decoration made of gold and jade. Phoenix coronet was also called phoenix-shape crown ornament, phoenix-shape jewelry decorated on phoenix coronet, which was yearned broadly known by ancient females and symbolized great honor. It was said that emperors’ concubines in Qin Dynasty started to use the decoration of phoenix hairpin; after Tang Dynasty, it became dragon as the symbol of male while phoenix as the symbol of female; especially, phoenix-shape hairpins symbolized the status of noble female (Yu, 2019).

The formation of phoenix coronet was a long process, which was related to time development endowing phoenix with political culture (Wu, 2020). In other words, the culture of phoenix coronet was a mitral culture going

through historical process.

Pattern on Phoenix Coronet

The golden dragon on top of phoenix coronet was made of golden silk. A lot of rubies and sapphires were decorated on phoenix coronet. Such gems were embedded with the original shape without processing that they were still glittering after several thousands of years. Kingfisher’s feathers were used for the phoenix on phoenix coronet; such craft was called kingfisher inlay (Ho & Yu, 2014). Kingfishers are listed as protected animal nowadays that such craft is prohibited. The part, as the feather of phoenix, on the back of phoenix coronet was *bobin* (a hairstyle); an empress’ phoenix coronet appeared three each on both sides, while merely two for concubines. Large number of pearls, rubies and sapphires were embedded on *bobbin* (Chen, 2017). Dragon pattern, phoenix pattern, cloud pattern, leaf pattern, and *bobbin* on the coronet were separately made and then embedded on the hairpin as the assembly. The description of the phoenix coronet pattern is shown in Table 1.

Research Method for Design

Miryoku Engineering

Charm, the self-performance of individual personality, is the influence and attraction caused by personal emotion and mutual delivery in the interaction with people. A person presenting admirable and adorable ability and comprehensive performance would have consumers, with self-image, decide the strength and depth of charm. Charm comes from inner self-image; however, charm shows the idea of

specificity which is not necessarily evaluated specifically. Miryoku Engineering tends to obtain comparatively specific evaluation and cognition of

consumers to design attractive products with better opportunities (Ujigawa, 2000; Tseng, 2007; Ma, Tseng, & Hung, 2005).

Table 1. Illustration Of Phoenix Coronet Pattern

Picture	Description
	<p>Golden dragon on top of phoenix coronet is made of golden silk that they still glitter after hundreds of years. The phoenix on phoenix coronet is stuck with kingfisher's feathers. Such craft is called kingfisher inlay.</p>
	<p>Phoenix coronet is decorated with large number of rubies and sapphires, which are embedded with original shapes, without processing.</p>
	<p>The phoenix feather-like part on the back of phoenix coronet is called <i>bobbin</i>, which appears three each on both sides of an empress' phoenix coronet, but merely two for concubines. <i>Bobin</i> is also embedded numerous pearls, rubies and sapphires.</p>
	<p>Dragon pattern, phoenix pattern, cloud pattern, leaf pattern, and <i>bobbin</i> are produced separately and then assembled.</p>

Data source: <https://kknews.cc/culture/q2mv66y.html>

Miryoku Engineering was proposed by Masato Ujigawa, by gathering the methodology of many researchers, in 1991. Under three basic theories, Ujigawa (2000) proposed the framework of Miryoku Engineering,

aiming to acquire individual cognition of products and systematically organize ways with opportunities to successfully design attractive products by matching consumers' cognition (Asano, 2001). It was also because of consum-

ers' distinct cognition and needs for products that a firm had to take consumers' feelings of new products into account (Ujigawa, 2000; Asano, 2001). Based on the idea of Miryoku Engineering, pictures of Chinese bride's phoenix coronet modeling are provided for consumers understanding and analyzing the cognitive ideas, consumers' cognition of phoenix coronet design is concluded, and the phoenix image is applied to the modeling design. Miryoku Engineering is also the source of creative element for the phoenix coronet design.

*Importance-Performance Analysis
(IPA)*

According to attractive factors in

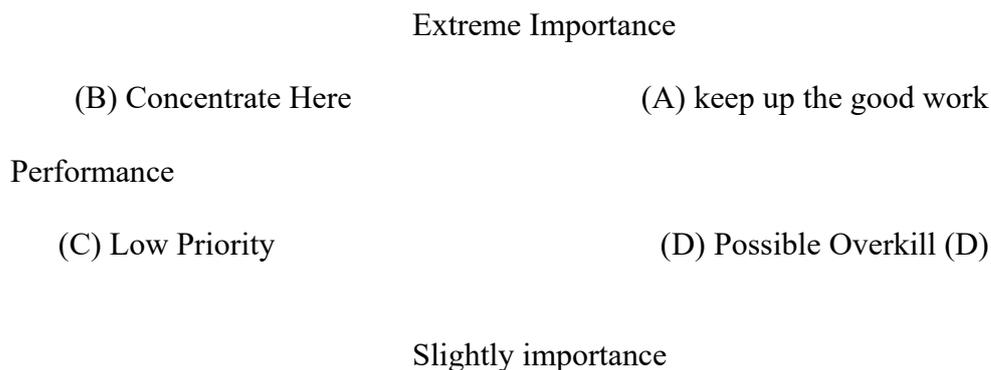


Figure 1. Importance-Performance Analysis (Data source: the design organized from Martilla & James (1977)).

*Design Theme And Design
Transformation*

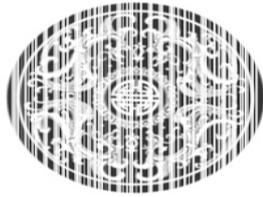
1. "Chinese bride phoenix coronet" is the design theme. Previous literature review data show exclusive phoenix coronet for different identity to present the power. Referring to phoenix coronet in the history and characteristic phoenix patterns on phoenix coronet, three patterns, including geometric de-

Chinese bride's coronet modeling design, the designed creations are measured the attributes with importance-performance analysis (IPA) proposed by Martilla & James (1977), and the questionnaire content would follow the attractive factors in phoenix coronet modeling design and integrate in the IPA questionnaire for the importance and performance investigation. Taking "performance" as the X axis and "importance" as the Y axis, the general means of importance and performance is the origin to form four quadrants of quadrant I (A) Keep up the good work, quadrant II (B) Concentrate Here, quadrant III (C) Low Priority, and quadrant VI (D) Possible Overkill, Figure 1.

sign of phoenix, cloud and phoenix, and comprehensive design of phoenix, are selected as the representatives, Table 2.

2. The image elements in the design contain phoenix modeling and the combination with other patterns, which are preliminarily integrated with the phoenix imagery.

Table 2. Modeling Design Theme

Name	Picture	Description
Geometric design of phoenix		Name of creation: phoenix singing the dawn. Geometric design of phoenix: matching the design with the shape of utensils, e.g. embroidery, ceramics, architecture, and furniture. Phoenix is arranged round, square, and polygon.
Cloud and phoenix		Name of creation: hundred birds paying homage to phoenix. Design of phoenix and cloud: Phoenix's head and wing tail appear the figure of floating clouds, with streamlined contour. Phoenix body as clouds presents sense of abstraction, and flying in auspicious clouds shows peaceful and delightful feeling.
Comprehensive design of phoenix		Name of creation: phoenix flying in the sky. Comprehensive design of phoenix: The combination of geometry, clouds, flowers, and curly grass present the creation with rich emblazonry.

Creation Results and Analysis

I. Extraction and induction of attractive factors in the modeling design of phoenix coronet with mixed media.

Deep interview about the attractive factors in the combination of phoenix coronet modeling design and media are preceded with 15 people to induce the "original reasons" for the attraction. They are further interviewed

specific matters and abstract reasons for the combination of artistic aesthetics of phoenix coronet with bridal modeling to construct the EGM evaluation of bride's phoenix coronet decoration as the reference for this creation. Table 3 shows the statistics of original reasons, specific matters, and abstract reasons with Evaluation Grid Method to show the attractive factors in the phoenix coronet creation.

Summing up above interview data with Evaluation Grid Method, the

attractive factors, fashion, attraction, sense of art, and professional styling in original reasons for transforming

phoenix coronet art to modern style are discussed and organized as the reference for this creation.

Table 3. Interview Content

Original reason	Specific matters	Abstract reason
Fashion	1. sense of design (2), 2. beautification (2), 3. gracefulness (2), 4. simple style (1), 5. dynamic levels (3), 6. classic style (2)	1. mystique (1), 2. innovative (4), 3. textured (2), 4. creativity (1), 5. theme (3), 6. classic beauty (2), 7. fantasy (2), 8. happiness (1), 9. beautiful (1)
Attraction	1. sense of design (2), 2. beautification (2), 3. gracefulness (1), 4. neatness (1), 5. cuteness & liveliness (1), 6. natural style (1), 7. fashion trend (2), 8. appearance transformation (3), 9. characteristic element (2), 10. classic style (2).	1. innovative (4), 2. textured (2), 3. theme (3), 4. gorgeous (3), 5. fantasy (2), 6. sweet (2), 7. novelty (3), 8. stress relief (2).
Sense of art	1. delicacy and elegance (1), 2. sense of design (2), 3. classic beauty (2), 4. dynamic levels (3), 5. energetic (2), 6. fashion trend (2), 7. appearance transformation (3), 8. classic style (2).	1. innovative (4), 2. theme (3), 3. classic beauty (2), 4. gorgeous (3), 5. fantasy (2), 6. sense of history (4), 7. novelty (3), 8. uniqueness (2)
Professional styling	1. fashion trend (2), 2. appearance transformation (3), 3. simple lines (2), 4. characteristic element (2), 5. classic style (2).	1. innovative (4), 2. theme (3), 3. gorgeous (3), 4. sense of history (4), 5. sweet (2), 6. novelty (3), 7. stress relief (2), 8. uniqueness (3).

Data source: organized in the design (numbers in the brackets stand for the number of times of the interviewees' semantemes appearing in specific matters and abstract reasons)

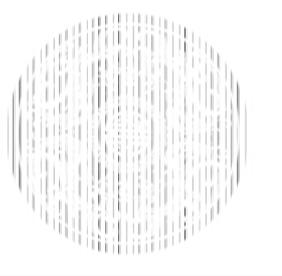
From Table 3, the following 8 major attractive factors are used for planning the IPA questionnaire. 1. The innovation of phoenix coronet modeling. 2. The theme of phoenix coronet modeling. 3. The gorgeousness of phoenix coronet modeling. 4. The

novelty of phoenix coronet modeling. 5. The sense of history of phoenix coronet modeling. 6. The classical practicality of phoenix coronet modeling. 7. The fashion trend of phoenix coronet modeling. 8. The cuteness and liveliness of phoenix coronet modeling. They are the items for successive survey of consumers' opinions.

II. Design idea of phoenix coronet
 1. Skills for Chinese bride’s phoenix coronet modeling design with “phoenix singing the dawn”: With surrounding phoenix as the structure, Miryoku

Engineering, as the design idea, is utilized for analyzing the attractive factors and creating values for the extending creation of the combination of clothing and phoenix coronet, Table 4.

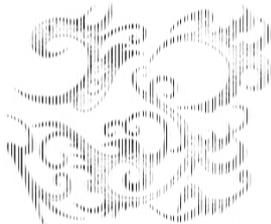
Table 4. Design creation of “phoenix singing the dawn”

Name of creation	Phoenix singing the dawn	
		
Production skill	<ol style="list-style-type: none"> 1. Before the design modeling, copper sheet is first circled on the top points and the golden point as the base, mainly to support the position of phoenix coronet. 2. The base is placed on the midline for stacking the designed pattern on top point and decorations on both sides. The golden copper sheets are separated into several areas for fixing devices. Using the shape of the copper sheet circle to make the curved line, the entire atmosphere would be nature. 	
Theoretical basis		
Design idea	<p>Using the phoenix union for “phoenix imprint” design for creating the phoenix coronet modeling, and imagery patterns and aesthetic lines are applied to present perfect ratio with golden copper sheets.</p> <p>Charming factors in the design is analyzed with Miryoku Engineering. Based on symmetric and strict modeling, the modeling from clothing to coronet and the change of imagery patterns create the personality of phoenix coronet with unique, vintage, and notable feeling.</p>	

2. Skills for the bride’s phoenix coronet design with “hundred birds paying homage to phoenix”: Using the structure as the theoretical basis, the surrounding flying lines show the overlapped vision of the phoenix coronet modeling to present the form of beauty. Miryoku Engineering, as the design idea, is used for analyzing the attrac-

tive factors to create values, analyzing modeling design and attractive factors, and assembling the extended creation with the combination of four different types of clothing and the phoenix coronet. The combination of such four different types of clothing and the phoenix coronet is analyzed the attractive factors, Table 5.

Table 5. Design creation of “hundred birds paying homage to phoenix”

Name of creation	Hundred birds paying homage to phoenix	
		
Production skill	<ol style="list-style-type: none"> 1. Before the design modeling, copper sheets are first circled on the top point and the golden point as the base, mainly to support the position of phoenix coronet. 2. The base is placed on the midline, and the pattern of stacked artisan blossoms is placed in the front and both sides. The artisan blossoms are separately fixed in various areas, and the golden copper sheets are separated into several areas for fixing devices. The shape of the copper sheet circle is applied to make the curved line so that the entire atmosphere is nature. 3. The base is fixed with pieces of copper sheets by iron wires. The silk and iron wires are put on both sides to fix hair for other applications. 	
Theoretical basis		

	The “hundred birds paying homage to phoenix” design is used for the phoenix coronet with phoenix flying around. The aesthetic flying lines allow the artisan blossoms showing show the perfect ratio of the modeling.
Design idea	Miryoku Engineering is used for analyzing the attractive factors in the design. Based on symmetric and strict modeling, the modeling from clothing to the phoenix coronet and the aesthetic change create the personality of phoenix coronet with unique and notable feeling.

3. Analysis of the bride’ phoenix coronet design with “phoenix flying in the sky”, Table 6: Repeated and stacked flowers and phoenix-shape lines to present the form of beauty is the theoretical basis of the bride’s phoenix coronet creation with “phoenix flying

in the sky”. Miryoku Engineering is further applied to analyze the attractive factors to create the values for extending the creation with the combination of four different types of clothing and the phoenix coronet.

Table 6. Design creation of “phoenix flying in the sky”

Name of creation	Phoenix flying in the sky
	
Production skill	<ol style="list-style-type: none"> 1. Before the design modeling, copper sheets are first used on the top points and the golden point as the base, mainly to support the position of phoenix coronet. 2. The base is placed on the midline, and the designed pattern is stacked on the top and both sides. The imitated kingfisher inlay copper sheets are fixed in several areas to make the round line with the applied shape so that the entire atmosphere is natural.

Theoretical basis		
The “phoenix flying in the sky” design is used for the phoenix coronet modeling. The aesthetic lines have the imitated kingfisher inlay copper sheet modeling present perfect ratio.		
Design idea	Miryoku Engineering is used for analyzing the attractive factors in the design. Based on symmetric and strict modeling, the modeling from clothing to the phoenix coronet and the aesthetic change of flying create the personality of phoenix coronet with unique and notable feeling.	

Data source: organized in this design

IV. Importance-Performance Analysis

The importance and evaluation of design creation could provide reference for designers’ future design. It could help understand the performance of the phoenix coronet modeling creation in various attributes. Consumers’ questionnaire survey results are applied to view four quadrants and analyze customers’ identity to the attribute performance of the creation for the improvement items in the future design.

From the IPA importance analysis result, consumers consider the importance of phoenix coronet modeling, appearance, innovation, and fashion.

According to the data, 5 attributes in the 8 items show higher special value than the mean, while the quality function appears the lowest score, with

the importance lower than the mean. It reveals that consumers are dissatisfied with the item. The trait should be enhanced in the design to satisfy consumers.

1. Importance-performance analysis and explanation of the phoenix coronet modeling design creation 1 “phoenix singing the dawn”

The performance of the phoenix coronet modeling design with “phoenix singing the dawn” is analyzed and the result is shown in Figure 2.

As shown in Table 7, the creation of “phoenix singing the dawn”, with performance analysis, presents the attributes of innovation, theme, and gorgeousness in “Keep up the good work”, and the importance is higher than the mean that the advantages should be remained.

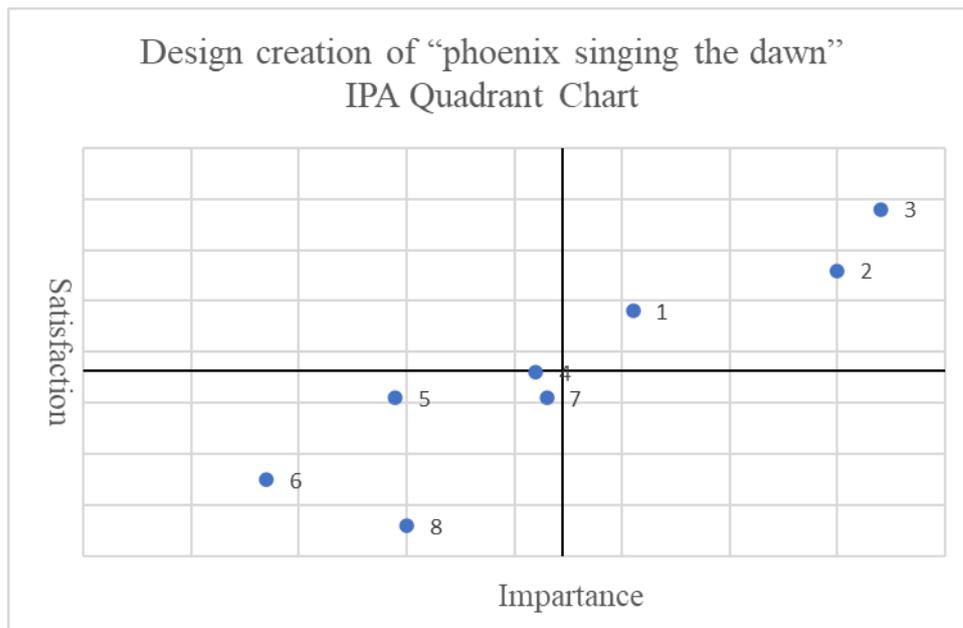


Figure 2. Performance analysis of the phoenix coronet modeling design with "phoenix singing the dawn"

Table 7. IPA of the phoenix coronet modeling design with "phoenix singing the dawn"

Quadrant	Trait
Quadrant I (Keep up the good work)	Phoenix coronet style is innovative? Phoenix coronet style presents the theme? Phoenix coronet style is gorgeous?
Quadrant II (Concentrate Here)	nil
Quadrant III (Low Priority)	Phoenix coronet style is novel? Phoenix coronet style shows sense of history? Phoenix coronet style reveals classical practicality? Phoenix coronet style presents fashion trend? Phoenix coronet style is cute and lively?
Quadrant VI (Possible Overkill)	nil
Summary:	
Design creation 1: "phoenix imprint" With the quadrant analysis and understanding, the creation of "phoenix imprint" presents three attributes of innovation, theme, and gorgeousness on Keep up the good work, and the importance and satisfaction performance is higher than the mean that the traits should be remained. The novelty, sense of history, classical practicality, fashion trend, and cuteness and liveliness of the phoenix coronet modeling appear low priority. Although consumers do not focus on the questionnaire survey results, the relevant items could be the reference for presenting the low priority effect through the related design and the application of mixed media to have	

the future design achieve consumers' emphasis and satisfaction.

Data source: organized in this design

2. Importance-performance analysis and explanation of the phoenix coronet modeling design creation 2 “hundred birds paying homage to phoenix”

The performance analysis of the phoenix coronet modeling design with “Hundred birds paying homage to phoenix” is shown in Figure 3.

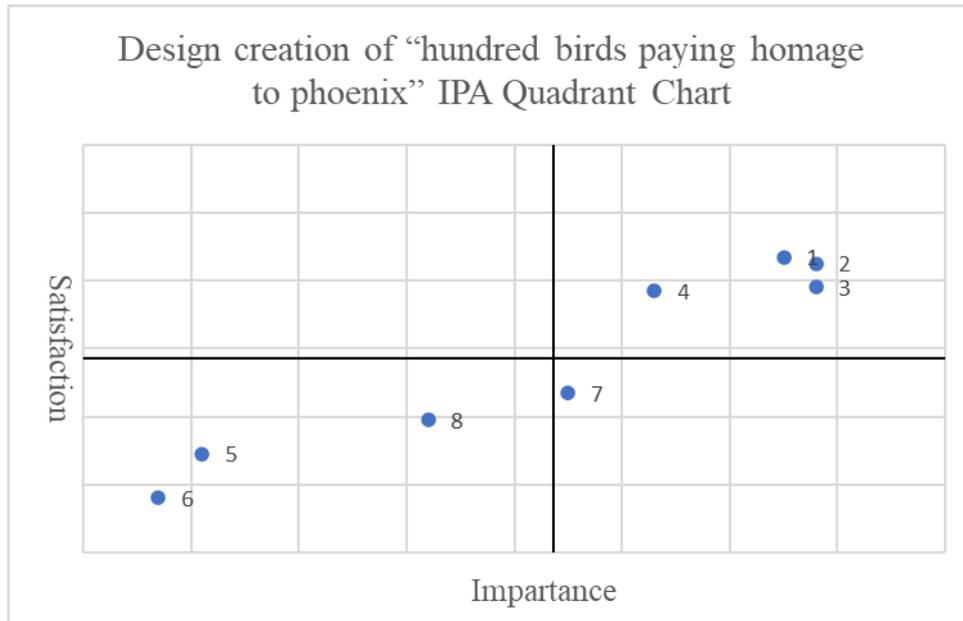


Figure 3. Performance analysis of the phoenix coronet modeling design with “hundred birds paying homage to phoenix”

As shown in Table 8, the creation of “hundred birds paying homage to phoenix” presents the attributes of dignity, nobleness, fashion, and theme on

Keep up the good work, with the importance performance higher than the mean that they should be remained.

Table 8. IPA of the phoenix coronet modeling design with “hundred birds paying homage to phoenix”

Quadrant	Trait
Quadrant I (Keep up the good work)	Phoenix coronet style is innovative? Phoenix coronet style presents the theme? Phoenix coronet style is gorgeous? Phoenix coronet style presents novelty?
Quadrant II	nil

(Concentrate Here)	
Quadrant III (Low Priority)	Phoenix coronet style shows sense of history? Phoenix coronet style reveals classical practicality? Phoenix coronet style is cute and lively?
Quadrant VI (Possible Overkill)	Phoenix coronet style presents fashion trend?
summary	
Design creation 2: “hundred birds paying homage to phoenix” With the quadrant analysis and understanding, the work “hundred birds paying homage to phoenix” presents innovation, theme, gorgeousness, and novelty on Keep up the good work, with the importance and satisfaction performance higher than the mean, that the traits should be remained. However, the creation might overemphasize fashion trend. It would be the reference for future creation.	

Data source: organized in this design

3. Importance-performance analysis and explanation of the phoenix coronet modeling design creation 3 “phoenix flying in the sky”

The performance analysis of the phoenix coronet modeling design with “phoenix flying in the sky” is shown in Figure 4.

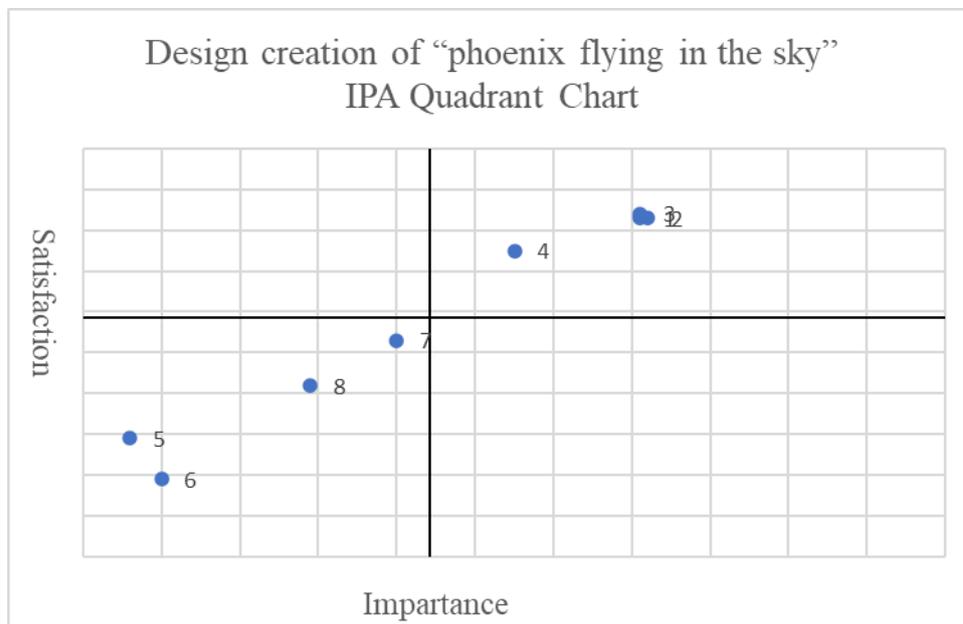


Figure 4. Performance analysis of the phoenix coronet modeling design with “phoenix flying in the sky”

The IPA result of the phoenix coronet modeling design with “phoe-

nix flying in the sky” is shown in Table 9.

The performance analysis and understanding, Table 9, reveal that the creation of “phoenix flying in the sky” presents dignity, nobleness, fashion,

and theme on Keep up the good work, with the importance performance higher than the mean that they should be remained.

Table 9. IPA of the phoenix coronet modeling design with “phoenix flying in the sky”

Quadrant	Trait
Quadrant I (Keep up the good work)	Phoenix coronet style is cute and lively? Phoenix coronet style presents the theme? Phoenix coronet style is gorgeous? Phoenix coronet style presents novelty?
Quadrant II (Concentrate Here)	nil
Quadrant III (Low Priority)	Phoenix coronet style shows sense of history? Phoenix coronet style reveals classical practicality? Phoenix coronet style presents fashion trend? Phoenix coronet style is cute and lively?
Quadrant VI (Possible Overkill)	nil
Summary:	
Design creation 3: “phoenix flying in the sky” The quadrant analysis and understanding reveal that the creation of “phoenix flying in the sky” presents innovation, theme, gorgeousness, and novelty on Keep up the good work, with the importance and satisfaction performance higher than the mean, that the traits should be remained. Furthermore, the sense of history, classical practicality, fashion trend, and cuteness and liveliness appear on Low priority. Although consumers stress less on the questionnaire survey result, the relevant items could be the reference for presenting the effect through related design and mixed media so that the future creation work could achieve consumers’ emphasis and satisfaction.	

Data source: organized in this design

The analysis of the design creation points out the ranking of satisfaction performance and importance in Table 10.

Conclusion

In ancient legends, the possession of phoenix coronet could be the moth-

erly model of the nation. In addition to happiness, phoenix coronet also stands for sublime, auspiciousness, and auspicious response and even presents female virtues of humanity, justice, courtesy, wisdom, beauty, and faith. Besides, it is discovered in the design that it presents a special sense of art in the wedding process. From the behav-

ior of wedding, changing traditional ceremony to modern western wedding or matching classic wedding with modern adornment is no longer a

dream, but could be actually realized. The decoration of bride's phoenix coronet is regarded as the praise of wedding in art.

Table 10. Ranking of performance and importance mean

Name of crea- tion	Performance	Ranking	Importance	Ranking
Phoenix sing- ing the dawn	(4.34)	2	(4.36)	2
Hundred birds paying hom- age to phoenix	(4.23)	3	(4.17)	3
Phoenix flying in the sky	(4.34)	1	(4.38)	1

In the design creation of bride's phoenix coronet modeling, Evaluation Grid Method in Miryoku Engineering is applied to induce attractive factors in consumers' preference and organize relevant data as the reference for creations. With IPA (Importance- Performance Analysis) to evaluate and analyze the bride's phoenix coronet modeling design, the result shows higher evaluation and affirmation on importance and satisfaction performance of the respondents. Evaluation Grid Method in Miryoku Engineering is applied in the design to induce four original reasons of the phoenix coronet design for attracting consumers, as fashion, attraction, sense of art, and professional styling. The design based on the characteristics of Evaluation Grid Method could also receive consumers' identity.

Reference

Asano, H. (2001). Realize the Miryoku Engineering: To produce the

popular product. Tokyo: Kaibundo.

Chen, S. Y. (2017). From Flower Crown to Phoenix Crown: A Study on the Origin of Crown Decorations for Concubines and Concubines in the Sui, Tang and Ming Dynasties. *Art & Design Research*, 1, 20-28.

Kelly, G. A. (1955). *The psychology of personal constructs*. NY: Norton.

Ho, M., & Yu, C. T. (2014). Discussion of the decoration beauty of gorgeous phoenix coronet. *Literature Life*, 8, 31.

Liang, B. K. (2010). *The Construction of Nostalgic Place-A Case Study of Nostalgic Restaurant "New Taiwanese Original*. Department of Applied History, National Chiayi University.

- Liu, J. (2015). Artistic characteristics of Chinese traditional phoenix coronet and robe of rank and the creation inspiration. Jingdezhen Ceramic Institute.
- Ma, M. Y., Tseng, L. D., & Hung, J. Y. (2005). The attractiveness evaluation of cultural creative industry for sightseeing festival in Taiwan. Taipei: Research result report of National Science Council, NSC.
- Martilla, J. A., & James, J. C. (1977). Importance-performance analysis. *Journal of Marketing*, 41 (1), 77-79.
- Sanui, J. (1996). Visualization of users' requirements: Introduction of the Evaluation Grid Method. Paper presented at the The 3rd Design & Decision Support Systems in Architecture & Urban Planning Conference.
- Tseng, L. D. (2007). Integrated study on establishment of jewelry development, design & evaluation based on customer needs. The 12th Conference papers, Chinese Institute of Design. 268-274.
- Ujigawa, M. (2000). The evolution of preference-based design. Research and development Institute, 46, 1-10.
- Wu, Y. J. (2020). Historical investigation of (dragon) phoenix coronet being the symbol of empress. *Ji-anghan Forum*, 1, 105-113.
- Yu, L. (2019). The dignity and beauty on ancient female heads, phoenix coronet. *Encyclopedia Knowledge*, 8, 8-12.