Journal of Information Systems Engineering and Management

2024, 9(4), 25962 e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article



Research on the Application of Visual Communication Design Based on Traditional Culture in China-Chic Fashion Design

Yanhong Xie 101,2, Yan Cui 103, Amer Shakir Zainol 104*

- $^1\,Ph.D\,candidate,\,College\,of\,Creative\,Arts,\,Universiti\,Teknologi\,Mara\,(UiTM),\,Shah\,Alam,\,Selangor,\,Malaysia$
- ² Lecturer, School of Cultural Creativity and Media, Hangzhou Normal University, Hangzhou, China
- ³ Ph.D candidate, College of Creative Arts, Universiti Teknologi Mara (UiTM), Shah Alam, Selangor, Malaysia
- 4 Professor, College of Creative Arts, Universiti Teknologi Mara (UiTM), Shah Alam, Selangor, Malaysia
- * Corresponding Author: amers781@uitm.edu.my

Citation: Xie, Y., Cui, Y., & Zainol, A. S. (2024). Research on the Application of Visual Communication Design Based on Traditional Culture in China-Chic Fashion Design. *Journal of Information Systems Engineering and Management*, 9(4), 25962. https://doi.org/10.55267/iadt.07.15180

ARTICLE INFO

ABSTRACT

Received: 20 Mar 2024 Accepted: 15 Jul 2024

With the rise of the national trend, more and more clothing brands have begun to incorporate traditional cultural elements to enhance their brand characteristics and cultural connotations. Chinese traditional dress culture has a long history and carries a long historical heritage and rich cultural connotation, and occupies an important position in Chinese cultural tradition. Visual communication design is a design field that conveys information and expresses meaning through visual elements such as images, colors, words, and layouts. The study aims to explore the application of visual communication design based on traditional culture in the design of national fashion clothing and its relevance in the field of information systems engineering and management. By analyzing the importance and influence of traditional cultural elements in fashion design, this paper delves into how information systems can facilitate the effective integration and application of these elements. First, the paper reviews the role of traditional culture as an inspiration for fashion design and explores the role of information systems in data collection, analysis, and management. This study proposes a visual communication design method based on traditional culture through a review of relevant literature and empirical research, and through interviews and surveys. Combined with example analyses and case studies, this study demonstrates how information systems can support the need for innovation and personalization in the design of national-trend clothing. Finally, by evaluating the effectiveness of information systems in cultural visual communication design, future research and management suggestions are proposed to enhance information systems engineering and management.

Keywords: China-Chic Clothing, Traditional Culture, Visual Communication, Intangible Cultural Heritage.

INTRODUCTION

In the development of contemporary Chinese fashion design, traditional cultural elements, as an important design resource and cultural symbol, are gradually becoming the focus of designers' exploration and innovation. Traditional culture is not only a historical heritage, but also a cultural gene with expressive and profound connotation, which contains rich imagery and value, and can inject unique visual charm and emotional resonance into fashion design. Against this background, this paper aims to discuss the application of visual communication design based on traditional culture in Chinese fashion design. Chinese traditional culture has a long history,

covering many aspects such as poetry, calligraphy and painting, etiquette, philosophical thinking, craftsmanship and technology. These elements are not only symbols of history, but also valuable resources for contemporary cultural innovation (Ankolekar et al., 2024; Bibri, Huang, Jagatheesaperumal, & Krogstie, 2024). In fashion design, traditional cultural elements are constantly introduced and reinterpreted, and through their unique artistic expressions and symbolic meanings, they endow design works with profound cultural connotations and unique aesthetic values. For example, traditional Chinese colors, patterns and motifs, as well as the structure and design concepts of traditional clothing, have become the source of inspiration and the basis of creation for fashion designers (Bonab et al., 2024).

This paper will explore the specific application methods and effects of traditional cultural elements in fashion design by analyzing relevant theories and cases. In particular, it will focus on the role of visual communication design in integrating traditional cultural elements, and explore how it conveys and expresses the fusion of the essence of traditional culture and modern fashion through design means such as color, image and typography. This involves not only the conversion and reproduction of cultural symbols, but also the innovation of design language and the realization of communication effect (Torres, 2024; Collins et al., 2024).

ANALYSIS OF THE HISTORICAL EVOLUTION AND CHARACTERISTICS OF TRADITIONAL COSTUME CULTURE

Historical Evolution and Influencing Factors

Changes in clothing styles often accompany the changes in dynasties and social systems in Chinese history (Maciel, Angelov, & Gomide, 2024; Mendez et al., 2024; AB Newswire, 2023). For example, during the Ming and Qing dynasties, with the stability of feudal imperial power, magnificent palace costumes such as dragon robes and Aotou robes became mainstream (Liebenberg & Jarke, 2023; Wang, Zhang, Zou, & Maamar, 2023), reflecting the hierarchical system of feudal society and the majesty of imperial power (Fumagalli, Sales, Baião, & Guizzardi, 2022). During the Republic of China period, the trend of advocating modernization and the influence of Western culture promoted the popularity of traditional clothing such as qipao, reflecting social change and improving women's status (Rieger, Roth, Sedlmeir, & Fridgen, 2022; Y. P. Yuronen, Bakhtina, & E. A. Yuronen, 2022).

Characteristics and Design Elements of Traditional Clothing

Traditional clothing, with unique characteristics and design elements, is an essential component of ancient Chinese culture. In Chinese fashion, traditional culture's visual communication design can be applied in the following ways. One of the characteristics of traditional clothing is its emphasis on details and pattern design. Traditional clothing usually uses delicate embroidery, brocade, and other techniques and rich and colorful pattern elements. Traditional clothing design pursues overall harmony and beauty, emphasizing the smoothness of clothing lines and the coordination of proportions (Wibowo & Sediyono, 2021; Wang & Huang, 2022).

Traditional clothing also emphasizes the selection and application of materials. Traditional clothing often uses natural materials such as silk, cotton, and linen, which are comfortable and breathable and can display rich texture and luster (Bu, Wang, B. Jiang, & Q. Jiang, 2021). In Chinese clothing design, we can learn from the material selection of traditional clothing, combine traditional and modern materials, and create clothing works with a sense of texture and hierarchy.

RELATIONSHIP BETWEEN CHINA-CHIC FASHION DESIGN AND TRADITIONAL CULTURE

The relationship between Chinese clothing design and traditional culture is inseparable. As an essential part of Chinese culture, traditional culture has injected unique charm and inspiration into Chinese clothing design. By applying traditional culture's visual communication elements to Chinese clothing design, designers can create fashionable works that integrate tradition and modernity (Cheng, Mamoulis, & Huang, 2021). Based on the transformation approach in clothing, taking Taohuawu as an example, the design elements involved in Taohuawu are refined and accepted and classified into four levels from high to low according to their importance, as shown in **Table 1**.

	Element Design element level				
	classification	One-level	Two-level	Three-level	Four-level
Design elements	style	introverted	reason	folklorization	interest
	outline	deconstruction	Dongyun and	positive and negative	
			Xicai	forms	
	color	low saturation	black, white, and	elegant traditional	bright colors
		color	gray	colors	bright colors
	technology	digital printing	plant dyeing	damaged	embroidery

Table 1. Fashion Design Elements of Taohuawu's Formal Beauty

China-Chic clothing design makes clothing more recognizable and personalized by drawing on the pattern design of traditional clothing. Traditional clothing patterns usually integrate natural scenery, flora and fauna, myths, and legends, giving people a unique visual experience. In Chinese clothing design, designers combine traditional pattern elements, such as dragon and phoenix, cloud patterns, flowers, and birds, with modern fashion cutting and popular elements to create clothing with cultural connotations and fashion sense. China-Chic fashion design also pays attention to the lines and proportions of beauty in traditional clothing. Traditional clothing emphasizes the smoothness of clothing lines and the coordination of proportions, pursuing overall harmony and beauty. In Chinese clothing design, designers can refer to the lines and proportions of traditional clothing, integrate them into modern clothing design, and create a comfortable and lasting clothing form. The application practice of China-Chic New Year pictures in this series of China-Chic New Year pictures is shown in **Figure 1** according to the application method of auspicious patterns in Taohuawu New Year pictures in Guochao clothing proposed above (Troll, Blohm, & Leimeister, 2019; Cong & Zhang, 2024).

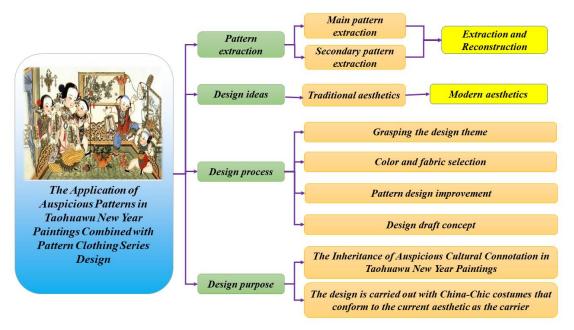
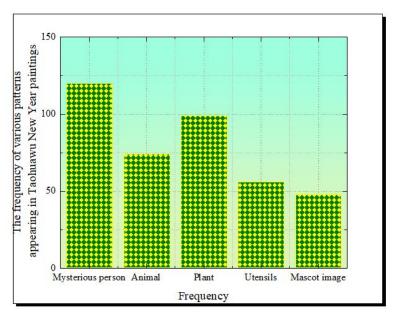
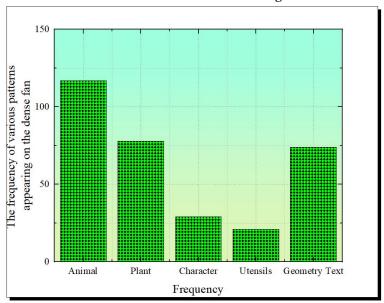


Figure 1. Design Application Framework Diagram

The theme types of Taohuawu New Year pictures and Chinese clothing representative brands' secret fans in pattern design creation are diverse and distinctive. **Figure 2** shows the comparison of auspicious pattern types between Taohuawu New Year pictures and the brand's secret fan clothing. From the perspective of theme division, Taohuawu New Year pictures and secret fans have auspicious patterns with animals, plants, artifacts, and words as the theme. In addition to auspicious patterns based on animals, plants, artifacts, and characters, Taohuawu New Year paintings also have auspicious patterns based on immortal characters; China-Chic clothing represents the brand of secret fans and geometric auspicious patterns. From the pattern type frequency, the Taohuawu New Year pictures and the Chinese clothing representative brands' dense fans all have animal and plant patterns at a high frequency.



Taohuawu New Year Painting



China-Chic Brand Close Fan

Figure 2. Comparison of Auspicious Pattern Types Between Taohuawu New Year Paintings and Brand Dense Fan Clothing

China-Chic clothing design is also inspired by the use of traditional clothing colors. Traditional clothing often uses rich and colorful color combinations like red, yellow, green, blue, etc. These colors give clothing a lively visual effect and have unique symbolic significance. In Chinese clothing design, designers can learn from the material selection of traditional clothing, combine traditional and modern materials, and create clothing works with texture and modern aesthetics (Li, Zhang, Huang, Zheng, & Qi, 2024).

Development Status of China-Chic Fashion Design

With the gradual strengthening of China's national strength and the continuous promotion of cultural heritage, Chinese clothing design is increasingly attracting people's attention and favor. China-Chic Fashion Design takes traditional culture as an element and combines modern fashion design concepts to create unique fashion works, leading the development of fashion trends. The development status of Chinese fashion design can be analyzed from many aspects. First, Chinese fashion design has become essential to China's fashion industry, attracting many designers and brands. Not only in China but also in the international arena, Chinese fashion design has attracted much attention and won more and more fans and followers. In consumers' minds, domestic traditional sports brands have become the representatives of Chinese clothing with absolute advantages, and

some domestic fashion brands, Hanfu brands, and underwear brands are also Chinese clothing brands in consumers' minds, as shown in **Figure 3**. The wind of "China-Chic" has swept all corners of the clothing industry (Tu, Niu, Cui, & Liu, 2024).

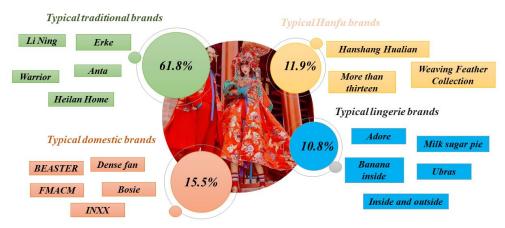


Figure 3. Typical China-Chic Clothing Brands in the Eyes of Consumers

Chinese fashion design's design concept and aesthetic demand are also constantly evolving and changing. Initially based on traditional cultural elements, Chinese garment design has made breakthroughs in visual communication and has integrated functional, environmental protection, technology, and other elements into the design to create more practical and futuristic fashion works. China-Chic Fashion Design is also expanding its market and development space. At various fashion weeks and exhibitions, Chinese clothing brands and designers have appeared one after another to show their style and strength. At the same time, Chinese clothing has gradually moved towards a diversified and personalized development path, no longer a single expression of cultural elements but more cultural elements, historical memories, and personality characteristics in the design. In addition, the form of IP co-branding is gradually being used by more and more Chinese clothing brands. This chapter summarizes the IP co-branding of local clothing brands in China-Chic clothing in recent years, as shown in Table 2.

Table 2. IP Co-branding Cases of China-Chic Garment Brands

Brand	Co-branded IP	Representative products	
Li Ning	Dunhuang Museum, National Treasure, People's Daily, Hongqi Automobile, EDG Squadron	Li Ning × Dunhuang Museum Co-branded Silk Road Series Shoes	
Anta	The Forbidden City, Long Live the Emperor, Mulan	Anta × Special edition of Winter Olympics licensed products for the Forbidden City	
Metersbonwe	Honor of Kings, full-time expert	Metersbonwe × Full time expert co-branded T-shirt	
Erke	"Under One Person", "Wushan Five Elements", "Fox Demon Little Red Lady", "Assassin 567", "King of Glory"	Hongxing Erke × King of Glory Co-branded T-shirt	
XTEP	Journey to the West: Daughter Country and Shaolin	Special steps × Shaolin Kung Fu series outerwear	
Taiping Bird	Luotianyi and Xicha	Taiping Bird × HEYTEA Joint Collection Sweater	
Warrior	Hulu Brothers, Wilderness Operation	Warrior × Hulu Brothers Co-Branded Canvas Shoes	

Application of Traditional Culture in China-Chic Fashion Design

Applying traditional culture in Chinese fashion has become a significant design trend and inspiration. As the treasure house of Chinese culture, traditional culture contains rich and profound connotations, which have injected unique charm and fashion elements into Chinese clothing design. The application of traditional culture in Chinese clothing design is mainly reflected in pattern design. The typical pattern elements in traditional clothing, such as dragon and phoenix, cloud patterns, flowers, and birds, were skillfully integrated into the design of Chinese clothing, giving clothing a solid Chinese cultural atmosphere. Designers create clothing works with

unique recognition and cultural connotations by combining traditional pattern elements and modern fashion cutting and craftsmanship techniques (Kim, Suh, & Kang, 2024; Ge & Wu, 2024).

The application of traditional culture in Chinese clothing design is also reflected in materials and styles. Traditional clothing usually uses natural materials such as silk, cotton, and linen, which give clothing a unique texture and touch. By using the material selection and technology of traditional clothing, designers combined modern fashion styles and popular elements to create Chinese clothing with both texture and modern aesthetics (Liu et al., 2024).

Analysis of the Relevance Between China-Chic Fashion Design and Traditional Culture

China-Chic fashion design is closely related to traditional culture, which is reflected in many aspects. First, Chinese garment design draws on the patterns and elements of traditional culture. The dragon and phoenix, cloud patterns, flowers and birds, and other pattern elements in Chinese traditional culture are ingeniously used in Chinese clothing design, giving clothing unique visual effects and cultural connotations. These traditional patterns add unique artistic value to the clothing and show the profound connotation of Chinese traditional culture, making Chinese clothing more cultural identity and aesthetic value. Secondly, Chinese clothing design is connected with traditional culture through color. Red, yellow, green, blue, and other bright colors commonly seen in traditional clothing are widely used in the design of Chinese clothing. These colors represent auspicious and prosperous meanings and highlight the unique understanding and application of colors in traditional Chinese culture. Using color elements of traditional culture, Chinese clothing can resonate visually, combine traditional culture with fashion elements, and show unique personality and style. Finally, Chinese fashion Design has innovated and interpreted the materials and styles of traditional culture. Traditional clothing usually uses natural materials such as silk, cotton, and linen, characterized by loose and comfortable styles. Based on traditional materials, Chinese clothing has improved and innovated its materials and styles in combination with the aesthetic needs of modern fashion. By using new materials and modern technology, Chinese clothing not only retains the characteristics of traditional culture but also meets the needs of contemporary people for comfort and fashion.

TRADITIONAL CULTURAL VISUAL COMMUNICATION DESIGN THEORY AND METHODS

The theory and method of visual communication design of traditional culture are essential bases for applying traditional cultural elements in Chinese fashion design. The rich and colorful patterns, symbols, texts, and other elements in traditional culture have become the main form of visual communication. Traditional cultural visual communication design must be recreated and expressed through techniques such as processing, combining, and transforming these elements to achieve maximum visual effects. For example, in Chinese clothing design, traditional cultural elements' colors, patterns, lines, etc., are refined and innovated to make them more modern and fashionable. Various symbols in traditional culture, such as dragons and phoenixes, flowers and birds, landscapes, etc., are essential forms of visual communication design in traditional culture. These symbols have profound cultural connotations and can generate unique visual effects through specific design techniques. For example, in Chinese clothing design, traditional symbols are collaged, combined, scaled, and other processing methods to give clothing more visual impact. The design process diagram for visual communication is shown in Figure 4 (J. H. Lee, E. Lee, Huh, M. L. Kim, & J. Kim, 2024; Yu Zhao, Zhou, Yan Zhao, Zou, & Wei, 2024).

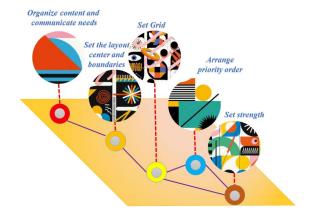


Figure 4. Design Process of Visual Communication

Traditional cultural visual communication design not only pursues the beauty of visual effects but also focuses on conveying cultural information and emotions. Using traditional cultural elements, Chinese clothing design conveys the rich and colorful Chinese culture and demonstrates its charm and uniqueness. In traditional cultural visual communication design, designers must deeply explore and understand cultural connotations to transform them into formal visual expressions.

Concept and Role of New Media Visual Communication Design

Visual communication design is a design field that conveys information and expresses meaning through visual elements such as images, colors, text, and layout. It is a manifestation of aesthetics and art and an effective communication tool and means of dissemination. In Chinese fashion design, visual communication design plays an important role. Visual communication design can be disseminated through various media, such as advertising, promotional materials, online platforms, etc., to expand brand influence and attract more consumer attention and recognition (Chen & Cheng, 2024; Chang & Xu, 2024).

Principles and Characteristics of Visual Communication Design in Traditional Culture

One traditional cultural visual communication design principle is the combination of inheritance and innovation. In Chinese fashion design, designers need to reinterpret and innovate traditional patterns, patterns, colors, and other traditional elements by excavating and understanding traditional cultural elements to combine them with modern fashion aesthetics and present novel and traditional design works. Next is the integration of Eastern and Western aesthetics. China-Chic clothing design often needs to consider people's aesthetic orientation under different cultural backgrounds, so designers need to skillfully combine traditional cultural elements with modern fashion design to cater to diversified consumer groups so that traditional culture can be more widely spread and recognized.

The characteristics of traditional cultural visual communication design are rich symbols and meanings, emphasizing the unity of form and connotation. Traditional culture's patterns, colors, symbols, and other elements often have rich cultural connotations and symbolic meanings. Designers can use these elements to convey specific historical stories, values, or folk traditions, making clothing works more profound and meaningful. In Chinese fashion, visual communication design should not only focus on the beauty and attraction of external forms but also convey the internal spirit and emotional resonance of traditional culture through design elements so that clothing works have aesthetic value and cultural significance (Su & Zhang, 2024).

Exploration of Visual Communication Design Methods Based on Dong Opera

Dong opera is a form of expression of Dong culture and a concentrated embodiment of Dong elements. Dong opera elements are classified according to their types, mainly music elements, Dong decorations, character elements, and Dong architectural elements. Each Dong opera element type is carefully divided, and the Dong opera elements are further divided as shown in **Table 3**; at the same time, it is also to better integrate with visual communication design in the next step.

Table 3. Classification of Dong Opera Elements

Types of Dong Opera Elements	List of Dong Opera Elements	Nation
Dong Opera music elements	Dong flute, ox leg qin, Dong ethnic pipa, erhu, big drum, small gong, lusheng	Dong Nationality
Dong ethnic pattern	Color elements, silver elements, plant pattern elements, animal pattern elements	Dong Nationality
Dong Opera character elements	Raw, Dan, Pure, Ugly	Dong Nationality
Dong ethnic architectural elements	Dong Opera Stage, Dong Drum Tower, Sanwang Palace	Dong Nationality

The exploration of the visual communication design method of Chinese clothing based on traditional culture is to effectively integrate traditional cultural elements into clothing design and express them through visual communication. Firstly, designers need to delve into the elements of traditional cultures, such as patterns, colors, symbols, etc. To understand and apply these elements accurately, understand their historical background, cultural implications, and symbolic significance. Traditional culture has many patterns and patterns with specific symbols and meanings. Designers can excavate these symbols and meanings and use them in Chinese clothing design. By cleverly combining and deducing, these symbols and meanings are transformed into visual elements in clothing design to convey specific cultural connotations and values. In integrating traditional cultural elements, designers can apply innovative design elements. For example, traditional patterns and patterns can be redesigned and collaged to create unique visual effects. Alternatively, traditional colors can collide and blend with modern colors

to create a novel visual experience.

China's clothing design needs to consider the fashion trends and the aesthetic needs of consumers. Therefore, while utilizing traditional cultural elements, designers must combine fashion trends. By conducting research and analysis on the current clothing market, we can understand consumer preferences and trends and combine traditional cultural elements with fashion trends in a targeted manner to meet consumer needs. Visual communication design can be disseminated through various media, such as print advertising, brochures, social media, etc. Designers can choose appropriate design forms and expression methods based on the characteristics of different communication media to convey traditional cultural visual elements to the target audience with the best effect.

REALIZING AND MANAGING THE APPLICATION OF TRADITIONAL CULTURAL ELEMENTS IN CHINESE STYLE FASHION DESIGN THROUGH INFORMATION SYSTEM

Realizing and managing the application of traditional cultural elements in Chinese style fashion design through information systems is an important exploration and practice in the field of current national trend clothing design. Traditional cultural elements such as the silhouette of Hanbok, the imagery of classical literature and the patterns of traditional paintings have unique aesthetic value and cultural expression in fashion design. The use of information systems can help designers systematically collect, store and manage data on these traditional elements, including digitalized information on historical documents, artworks and cultural symbols. Information systems can also support cross-border integration and collaboration of design ideas. Through online platforms or digital collaboration tools, designers can work across borders with professionals such as historians, artists and artisans to explore and interpret the diversity and depth of traditional culture. This mode of collaboration not only helps to protect and pass on traditional culture, but also can inject richer and more fashionable connotations into the design of national fashion clothing.

Big Data Analysis of Traditional Cultural Data

Data Collection and Integration: Through the information system, a large amount of data on traditional culture, including historical documents, artworks, and cultural heritage, are collected and integrated. These data can be in the form of text, images, videos, etc., systematically stored and managed.

Data mining and analysis: Utilizing big data analysis techniques to mine patterns, trends and correlations in cultural data. For example, analyze clothing cuts, pattern designs and color preferences from different historical periods, as well as their evolution and influence on fashion.

Application of Artificial Intelligence in Design Innovation

Image Recognition and Pattern Matching: Using machine learning and computer vision technology, traditional cultural patterns, colors and forms are automatically identified and classified. This can help designers find inspiration and references quickly and speed up the design process.

Natural language processing: analyzing and understanding traditional cultural textual materials, including poems, literary works and historical records, in order to extract design inspiration or themes from them.

Personalized Design and Customization

Data-driven personalized design: personalized design based on consumer data and preferences, combined with traditional cultural elements. The information system can analyze consumers' purchasing behavior and preferences and provide them with customized national fashion products.

Predictive analytics and trend forecasting: using data analytics and machine learning models to predict fashion trends and market demand, guiding companies' decisions in the design and production process and reducing market risks.

Specific Steps of Information System Technology Applied to Visual Communication Design

Data Collection and Integration: The information system collects and integrates a large amount of data about traditional culture by collecting and integrating them, including historical documents, artifacts, cultural heritage, and so on. Through big data analysis technology, the system can categorize, label and archive these data for subsequent use by designers.

Data mining and analysis: the information system uses data mining technology to analyze the collected

traditional cultural data. For example, by analyzing patterns and colors in historical documents and artworks, the system can identify some common traditional cultural elements and provide them to designers as references.

Image recognition and processing: The information system can help designers quickly find suitable traditional cultural patterns, colors and forms through image recognition technology and apply them to the design. The system can process the images, extract the key features in them, and adjust and optimize them according to the designer's needs. Designers can select and modify the image elements provided by the system through interactive operations to meet their design requirements.

Natural Language Processing and Text Generation: The information system can analyze and understand texts related to traditional culture through natural language processing technology. The system can recognize keywords and themes in the text and generate relevant text descriptions according to the designer's needs. These descriptions can be used to explain the traditional cultural meaning behind the design or as part of product publicity and promotion.

Data-driven personalized design: Based on collected consumer data and personal preferences, the information system can realize data-driven personalized design.

ANALYSIS ON THE CHARACTERISTICS AND DEVELOPMENT TREND OF CHINA-CHIC FASHION DESIGN

Combining traditional and modern cultures, Chinese fashion design has unique characteristics and development trends. China-Chic fashion design integrates the patterns, colors, and other elements of Chinese traditional culture. It endows traditional elements with new fashion connotations by interpreting and expressing modern aesthetic concepts. China-Chic clothing design highlights the national characteristics of Chinese traditional culture. It presents a unique Chinese style and temperament through clothing design and fabric selection, emphasizing cultural self-confidence and national pride. China-Chic Fashion Design makes bold innovations and breakthroughs based on traditional culture, constantly tries new design concepts and technology breaks the shackles of tradition and creates clothing works with both traditional charm and modern style. The combination of Chinese fashion design and contemporary fashion trends, the integration of traditional cultural elements and modern popular elements, meet consumers' needs for fashion and personalization and open up China's fashion market with international influence, as shown in **Figure 5**, which is the schematic diagram of modern design development and intangible elements.

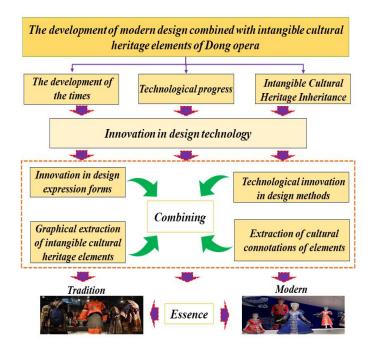


Figure 5. Schematic Diagram of Modern Design Development and Intangible Cultural Heritage Elements

Based on the above theoretical knowledge and combined with research results, transform it into a series of cultural and creative designs using design methods, with Dong opera as the design object. The cultural and creative design practice of Dong Opera elements is mainly reflected in brand, illustration, poster, and product packaging design in visual communication design. The brand, illustration, poster, and product packaging designs in Dong Opera cultural and creative industries are not independently applied but are interconnected and combined forms of expression. As shown in **Figure 6**, Dong Opera is based on intangible cultural heritage, and using design methods to showcase the brand effect of intangible cultural heritage is the core.



Figure 6. Schematic Diagram of Intangible Cultural Brand Effect

With the improvement of the soft power of Chinese culture, Chinese fashion design will go more to the international stage, attract more international consumers' attention, and promote the international spread of Chinese clothing culture with the opportunity of globalization. The future Chinese clothing design will pay more attention to the integration of classic and fashion and create more design works that meet contemporary aesthetic needs through the in-depth excavation of traditional culture to realize the progress of traditional culture with the times.

Background and Definition of China-Chic Fashion Design

China-Chic fashion design is a fashion design style that combines traditional cultural elements with modern visual communication design. It is inspired by traditional Chinese culture and showcases China's unique ethnic characteristics and fashion charm through clothing patterns and colors. In the context of globalization, Chinese clothing design reflects the confidence and pride of Chinese culture. It is the inheritance and innovation of traditional culture and a form of cultural expression and exchange. China-Chic Fashion Design integrates traditional culture into the design language of modern fashion, making traditional culture radiate new vitality and charm.

The visual communication of Chinese clothing design transmits specific cultural information and emotional resonance through the visual form of clothing. It combines traditional cultural symbols, patterns, and imagery to combine and present uniquely, creating clothing with strong visual impact and recognition. It also can combine traditional cultural elements with modern popular elements through innovative design techniques and material selection to create clothing works that meet the trends of the times and consumer needs.

Analysis of China-Chic Fashion Design Features

As a fashion style combining traditional and modern cultures, Chinese fashion design has unique characteristics and a distinctive personality. Firstly, it fully integrates elements of traditional Chinese culture, such as dragons, phoenixes, cloud patterns, landscape paintings, etc. Reinterpreting and recreating these traditional patterns endow traditional culture with new fashionable connotations and vitality, reflecting respect and innovation for traditional culture. Secondly, Chinese clothing design focuses on highlighting national characteristics. Careful design and selection of clothing styles, fabrics, and accessories show Chinese traditional culture's unique charm and temperament and emphasize cultural confidence and national pride. This

manifestation of national characteristics is not only reflected in the appearance of clothing but also in the expression of traditional Chinese values and aesthetic taste, which gives Chinese clothing design a distinctive cultural identity.

In addition, China-Chic Fashion Design has made bold innovations and breakthroughs based on traditional cultural elements, constantly exploring new design concepts and technology, breaking the shackles of tradition, and creating fashionable works that integrate tradition and modernity. It retains the charm of traditional culture and showcases modern charm, achieving a harmonious unity between tradition and modernity in clothing design. Finally, Chinese fashion Design also emphasizes individualization and internationalization, combining the trend of contemporary fashion, and through reinterpretation and interpretation of traditional cultural elements, it meets the needs of consumers for fashion and personalization and makes China's fashion culture more influential and competitive internationally.

Influencing Factors of China-Chic Clothing Purchase Intention

The research purpose of this chapter is to explore the influencing factors of Chinese Clothing on consumers' purchase intention. China-Chic Clothing's consumers are primarily young people in the Z era, that is, young men and women in the 18-30 age group. Therefore, this in-depth interview also targets young people in this age group. There were 23 interviewees in this interview, including 18 students or teachers majoring in Clothing and five professionals in related industries. Descriptive statistical information of the participants is shown in **Table 4**. According to the principle of theoretical saturation, 16 interviewee interview data were randomly selected for grounded theory coding analysis, and the remaining seven interviewee interview data were used for theoretical saturation testing.

Table 4. Summary of Basic Information of Interviewees

Category	Content	Number of people	Proportion
Gender	Male	12	52%
Gender	Female	11	48%
	18-22	3	13%
Λαο	22-25	11	48%
Age	25-30	7	30%
	Over 30 years old	2	9%
Career	student	17	74%
Career	Clothing or related industries	6	26%
Have you ever bought China-Chic clothes?	Correct	13	56%
Have you ever bought China-Chic clothes?	Deny	10	44%

By organizing the interview data obtained, valuable sentences were extracted, conceptualized, and abstracted. The results are shown in **Table 5**.

Table 5. Open Encoding Results

Example of Raw Materials	Conceptualization	Categorize	
Quality is also important, at least not inferior to the quality of other categories of clothing.	quality	quality	
I hope a piece of clothing can be worn for a long time without being damaged.	durability		
If the quality of the clothing matches the price, that is, if the cost-effectiveness is sufficient, I will be more willing to purchase it.	cost performance	price	
For China-Chic clothing, I think the price below 1000 is acceptable.	price	_	
Crafted fabrics are more comfortable and will make me wear them for a longer time, which is more in line with my purchasing tendency.	fabric comfort	fahria	
I will pay attention to the fabric of clothing for easy washing and maintenance.	washing and maintenance	- fabric	
I will be excited when I meet those beautiful clothes, which make China-Chic look good.	appearance	- atvilo	
If China-Chic clothing starts from the style, it will make me look more friendly.	style	- style	

After open coding, the original data has formed 31 categories. According to the principle of spindle coding, the above categories are classified, abstracted, and refined to identify the relationship between the primary and

auxiliary categories. Finally, one main category and one auxiliary category are obtained, representing product attributes and physical attributes, as shown in **Table 6**.

Table 6. The Encoding Results for the Main Axis

Main category	Subcategory	The Category of Influencing Relationships	Relationship connotation
		quality	Reliability of overall quality of
	Physical properties	quanty	clothing
Product attributes		price	Is the pricing of the product
			reasonable
		fabric	Comfort of clothing fabrics
		style	Clothing style

Most of the respondents mentioned a similar concept of rejecting popular styles. If a particular clothing item becomes popular in the surrounding population, it will increase their aversion to it. This reflects the common pursuit of unique personalities among young people today, which aligns with the characteristics of the Z generation. Culture and feelings are also factors generally reflected by respondents. The characteristics of China-Chic's local brands and designers are accepted and liked by respondents. At the same time, the expression of Chinese culture is the critical factor in attracting respondents.

CONCLUSION

In the era of new media communication, with the integration of intelligent devices, virtual technology, VR/AI/AR and other technologies, traditional visual communication is difficult to meet people's aesthetic and social needs. Traditional visual communication works mainly face problems such as a single mode of dissemination and difficulty in expressing the visual content deeply. Visual communication under dynamic image fusion expands the expressive carriers of visual communication, enriches the forms of expression, and makes the information conveyed by visual communication more direct, vivid, and flexible. This paper mainly focuses on establishing a connection between intangible cultural heritage and the discipline of design, and provides a detailed explanation and analysis. Through an in-depth analysis of Dong opera through examples, this article first elaborates on the historical background and inheritance status of Dong opera. Then, it analyzes the artistic characteristics of Dong opera from four aspects: "sound, color, and movement", and combines it with contemporary design methods through field research. By integrating traditional cultural elements into clothing design, clothing can be endowed with deeper cultural connotations, enhancing emotional resonance and artistic value.

When carrying out visual communication design based on traditional culture, the image innovatively integrates the beauty of art, combines the beauty of technology, forms a strong visual impact and emotional experience, breaks the two-dimensional limitations of traditional visual communication, and presents new design forms and expressions through the integration with technology. Dynamic images can more efficiently and effectively convey information to traditional culture in visual communication, and combine with the multiple perception methods of the human body to enhance the human experience. Through the analysis of the utilization of traditional culture in the concept and this China Chic fashion design, this study provides a fresh outlook on the design paradigm and procedure for the Chinese fashion design industry. For fashion designers and fashion practitioners, it offers useful guidance and motivation by looking at how traditional cultural elements can be included and integrated into existing fashionable designs through aesthetic visual analysis on which visual communication design methods can be applied.

The emergence and development of traditional culture is the result of people's close connection with nature and social practice. It is also a reflection of people's expectations for a better life in production and life, as well as their pursuit of aesthetic and cultural values. In the context of the prevalence of the "China-Chic" culture, many traditional elements have begun to create rich and varied, refined and rigorous organizational form features in fashion design, and have incorporated more formal language models and artistic expressions. The cultural meaning of the auspicious and auspicious conveyed by them is also more diverse and richer in modern fashion design, and the scope of application is more extensive. Especially in the era of rapid development, the unique charm and aesthetic value of China's traditional culture is worth inheriting, cherishing and developing, and it is worth exploring the new vitality and vitality of traditional culture from the "China-Chic" perspective.

Applying the concept of traditional Chinese culture to the development of visual communication has positively impacted the design of chic fashion by designers, brands and the fashion industry. Therefore, when traditional culture is incorporated into the design process, it is easier to incorporate contemporary aesthetics and culture in creating unique and innovative clothing pieces. This can lead to a good source of ideas and creativity and a way of coming up with new solutions. The visual communication design originating from tradition may convey unique brand images and rich cultural connotations to the brands, which helps to build up their image and boost their awareness. These traditional methods of culture-based design can help the firms to come up with a unique brand identity and therefore, different from other companies in the China-Chic clothes industry. The more general fashion business also draws inspiration from traditional culture-based visual communication design as a core source of ideas and as a reference. This enhances the development of China's fashion industry as well as increases the recognition of Chinese culture in the world.

National tide clothing design is not only a direct copy of the traditional culture but also a blending of traditional elements with modern fashion to formulate a new style. In this process, information system technology is widely used and helps enhance the design effect through data analysis and algorithm optimization. It is possible to gather various data resources on the topic of traditional culture from many channels with the help of information systems technology. By using the data mining technique, design elements are identified from the large amount of data. The information system applies analytical procedures of pattern recognition to find out patterns, colors and forms of traditional culture and materialise them into a set of libraries that can be employed in design works. With the help of big data analysis, artificial intelligence algorithms and image processing technology, it is possible to reveal and use the potential of the traditional culture and its elements in creating modern fashion.

LIMITATIONS

System's reach: This research also does not consider other factors and design strategies that can also have an impact on the fashion design particularly the China-Chic fashion design that only focuses on the application of visual communication design based on traditional culture. Further research may wish to expand the scope of the studies and look into more numerous and diverse creative solutions and design ideas.

Absence of quantitative analysis: The data of this research is mainly from case analysis and experimental design and no statistical data was collected for this study. In order to obtain more realistic findings in future research, the authors can apply more quantitative types of research such as field observations and questionnaire surveys.

Cultural adaptability: The correlation between visual communication design and fashion design across different cultures is not explored while focusing on the impacts of Chinese culture on Chinese fashion design. Further study may include the comparison of methods to visual communication design within different cultures as well as analyzing the effects of cultural adaptability on fashion design.

FUTURE DIRECTIONS

Continuing to improve deep learning and intelligent algorithms to improve the efficiency of information systems on image identification, data mining, and natural language processing in identifying traditional cultural elements. Further engage information system technology with other related fields (for instance, cultural studies, design psychology) in order to expand the use of traditional culture entities in apparel design and encourage collaboration as well as creativity. Stress the subjective and interactive aspects of design, incorporate such elements as human-computer interface and user feedback into the information system, increase the share of users, and make the personalized design more accurate and satisfying.

CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

REFERENCES

AB Newswire. (2023). Information systems engineering (ISE) grows MSP business with Maxava monitor Mi8. Retrieved from https://markets.financialcontent.com/worldnow.katv/article/abnewswire-2023-9-14-information-systems-engineering-ise-grows-msp-business-with-maxava-monitor-mi8

Ankolekar, A., Eppings, L., Bottari, F., Pinho, I. F., Howard, K., Baker, R., . . . Lambin, P. (2024). Using artificial intelligence and predictive modelling to enable learning healthcare systems (LHS) for pandemic preparedness. *Computational and Structural Biotechnology Journal*, 24, 412-419.

Bibri, S. E., Huang, J., Jagatheesaperumal, S. K., & Krogstie, J. (2024). The synergistic interplay of artificial intelligence and digital twin in environmentally planning sustainable smart cities: A comprehensive systematic review. *Environmental Science and Ecotechnology*, 100433.

Bonab, S. A., Xing, Y., Russo, G., Fabbri, M., Morandi, A., Bernstein, P., . . . Yazdani-Asrami, M. (2024). Estimation of magnetic levitation and lateral forces in MgB2 superconducting bulks with various dimensional sizes using artificial intelligence techniques. *Superconductor Science and Technology*, 37(7), 075008.

Bu, F., Wang, N., Jiang, B., & Jiang, Q. (2021). Motivating information system engineers' acceptance of Privacy by Design in China: An extended UTAUT model. *International Journal of Information Management*, 60, 102358.

Chang, W., & Xu, X. (2024). Innovations in the design of pleated clothing using digital printing and dyeing technology. *Asian Social Science*, 20(1), 1-42.

Chen, D., & Cheng, P. (2024). Research on the image design of clothing patterns. Fibres & Textiles in Eastern Europe, 32(1), 17-24.

Cheng, R., Mamoulis, N., & Huang, X. (2021). Guest editorial: WWWJ special issue of the 20th international conference on web information systems engineering (WISE 2019). World Wide Web, 24, 347-349.

Collins, K. M., Jiang, A. Q., Frieder, S., Wong, L., Zilka, M., Bhatt, U., . . . Jamnik, M. (2024). Evaluating language models for mathematics through interactions. *Proceedings of the National Academy of Sciences*, 121(24), e2318124121.

Cong, X., & Zhang, W. (2024). The application of hierarchical perception technology based on deep learning in 3D fashion design. *Heliyon*, 10(9). https://doi.org/10.1016/j.heliyon.2024.e29983

Fumagalli, M., Sales, T. P., Baião, F. A., & Guizzardi, G. (2022). Conceptual model visual simulation and the inductive learning of missing domain constraints. *Data & Knowledge Engineering*, 140, 102040.

Ge, Y., & Wu, Z. (2024). Application of floral elements in fabric remanufacturing. *Scientific and Social Research*, 6(2), 239-242.

Kim, J., Suh, J., & Kang, E. (2024). Green supply chain management to promote environmental awareness of consumers in the fashion design industry. *Journal of Distribution Science*, 22(3), 93-104.

Lee, J. H., Lee, E., Huh, J., Kim, M. L., & Kim, J. (2024). Persona/scenario (P/S) toolkit enhancing inclusive fashion design education. *Fashion and Textiles*, 11(1), 5.

Li, L., Zhang, Y., Huang, S., Zheng, H., & Qi, H. (2024). Research and application of nonwoven materials in fashion design. *Frontiers in Art Research*, 6(4), 94-101.

Liebenberg, M., & Jarke, M. (2023). Information systems engineering with Digital Shadows: Concept and use cases in the Internet of Production. *Information Systems*, 114, 102182.

Liu, M., Lake-Thompson, G., Wescott, A., Beeby, S., Tudor, J., & Yang, K. (2024). Design and development of a stretchable electronic textile and its application in a knee sleeve targeting wearable pain management. *Sensors and Actuators A: Physical*, 369, 115102.

Maciel, L. D. S., Angelov, P., & Gomide, F. (2024). Guest editorial: Special issue: Applications of artificial intelligence and machine learning in business, finance and economics. *Revista de Gestão*, *31*(2), 134-136.

Mendez, R. M., Marín, A., Ferrando, J. R., Castro, G. R., Madrigal, S. C., Agostini, G., & Serra, P. C. (2024). Artificial intelligence applied to forced spirometry in primary care. *Open Respiratory Archives*, 6, 100313.

Rieger, A., Roth, T., Sedlmeir, J., & Fridgen, G. (2022). We need a broader debate on the sustainability of blockchain. *Joule*, 6(6), 1137-1141.

Su, D., & Zhang, H. (2024). Analysis of the impact of action figure miniaturization on figure clothing design. *Frontiers in Art Research*, 6(1), 27-31.

Torres, J. M. (2024). Leveraging ChatGPT and Bard for academic librarians and information professionals: A case study of developing pedagogical strategies using generative AI models. Journal of Business & Finance Librarianship, 29(3), 169-182.

Troll, J., Blohm, I., & Leimeister, J. M. (2019). Why incorporating a platform-intermediary can increase crowdsourcees' engagement: Case-study based insights. *Business & Information Systems Engineering*, 61, 433-450.

Tu, C., Niu, L., Cui, R., & Liu, K. (2024). Phonetic smart clothing design based on gender awareness education for preschoolers. *AUTEX Research Journal*, *24*(1), 20230021.

Wang, H., & Huang, Z. (2022). Guest editorial: WWWJ special issue of the 21th international conference on web information systems engineering (WISE 2020). *World Wide Web*, *25*(1), 305-308.

Wang, H., Zhang, W., Zou, L., & Maamar, Z. (2023). Guest editorial: WWWJ special issue of the 22th International conference on web information systems engineering (WISE 2021). World Wide Web, 26(2), 709-712.

Wibowo, G. C. A., & Sediyono, E. (2021). Information system engineering for web-based rps adaptation using the Laravel framework. *Journal of Computer Science and Technology Studies*, *3*(2), 50-58.

Yuronen, Y. P., Bakhtina, A. V., & Yuronen, E. A. (2022, March). Engineering of GIS for environmental monitoring of mining landscapes. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1230, No. 1, p. 012024). West Philadelphia, PA: IOP Publishing.

Zhao, Y. [Yu], Zhou, F., Zhao, Y. [Yan], Zou, Y., & Wei, X. (2024). Development of an emotional response model for hospital gown design using structural equation modeling. *AUTEX Research Journal*, 24(1), 20230010.