

Key Elements and Theoretical Logic of Genderless Clothing Design: An Analysis Based on Rooted Theory

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1. INTRODUCTION

Since the establishment of Bosie, the first emerging brand in China to enter the category of "genderless fashion" in 2018, more and more luxury brands, sports brands, fast fashion and new brands have incorporated the concept of genderlessness into their designs and have entered the field of vision with strong growth, entering the "genderless clothing" position (Zhang, 2020). The rapid development of genderless clothing design has brought many opportunities for the sustainable development of the current clothing industry, combining men's and women's clothing through the concept of weakening gender (Santos & Ceschin, 2016), improving the enterprise's utilisation of raw materials and optimising the physical space, reducing the number of production terminals, production links and management costs (Una & Barros, 2019), driving the upgrading and change of the supply chain, promoting the in-depth cooperation of clothing brands, promoting the full integration and development of genderless clothing design resources, giving full play to the market effect of genderless clothing design, building more influential genderless clothing design brands, and increasing their market attractiveness to consumer groups. Genderless clothing, while focusing on its own development, can also lead to in-depth co-operation in related fields of products, providing new ideas for the sustainable development of the textile and clothing industry.

Genderless clothing is a new track in the fashion industry (TMTPOST, 2021). Extensive design cooperation among apparel companies, frequent fashion weeks in various countries and regions, an increase in the number of gender-neutral apparel brand launches, and the organisation of related conferences and forums have all demonstrated their strong vitality. The sustainable development of genderless clothing design is not dependent on marketing and good brand storytelling, and some designers do not understand the cultural background and market demand for genderless clothing design, nor have a grasp of the motivation and value of its development, so that many of the designs run counter to each other and fail to enhance the value of the design (MalltoWin, 2021). Genderless clothing design encompasses the concepts of gender, fashion, the body and consumption/behaviour and inevitably generates interdisciplinary reflection (Reis et al., 2022). Previous studies have also pointed out that research on this topic comes from different disciplinary fields, such as gender issues (from the field of sociology), consumer behaviour of genderless clothing (from the field of marketing) and genderless fashion design (from the field of fashion design), and the content is mostly centred on the interdisciplinary characteristics and phenomena of genderless clothing design, but the process is slow. In view of this, this paper adopts the research method of rooted theory, on the basis of the research in the field of fashion design, combining the content of the knowledge field of fashion sociology and marketing (consumer behaviour and consumer psychology), to analyse the key elements and internal logic of genderless clothing design, and to establish a fashionable interdisciplinary theoretical model of genderless clothing design, in order to provide guidance for the practice and development of genderless clothing design.

2. LITERATURE REVIEW

Genderless clothing opens a new track and a new round of design collaboration in China's fashion industry with a deep social background. The authors did not find the relevant research results of genderless clothing design in authoritative journals such as CSSCI and Beida Core, while the relevant foreign research is more abundant. Taken as a whole, the current research on genderless clothing design at home and abroad mainly studies genderless clothing design from the fields of sociology (Oetojo et al., 2016. Chuprina et al., 2021. Vasan et al., 2019. Reis et al.,

2022) and marketing (Bardey et al., 2020. Buentello et al., 2022) in addition to the basic theoretical overview of the fashion design field with regard to its origins (Sun, 2021), the development process (Zeng, 2021), the collocation of design elements (Tao, 2020), the current status quo and the prediction of future trends (Song, 2023). The former focuses on analysing the relationship between gender and fashion in genderless clothing, while the latter analyses the factors influencing consumers to buy genderless clothing and the visions behind consumers' purchases of genderless clothing designs, mainly from the perspectives of both consumer behaviour and consumer psychology.

It is interesting to study the trend of genderless clothing design from a sociological point of view, as it reflects a shift in society's attitude towards the traditional binary gender system towards fashion and the relationship between gender consciousness and fashion consciousness, pointing out that gender equality is not about women and men becoming the same, but rather about equality of life chances (Oetojo, 2016). The level of one's engagement with gender identity is related to fashion participation (Chuprina et al., 2021), and this perception of gender provides new avenues for designers to create new collections and has an impact on consumer behaviour, contributing to the trend towards genderless collections (Oetojo, 2016). Fashion is obsessed with gender, yet in the construction of identity, fashion has nothing to do with gender (Vasan et al., 2019). Some scholars distinguish and define various types of gender concepts (sex, gender neutral, and androgynous, etc.) (Reis et al., 2022) pointing out that designers and creators approach genderless clothing design from the perspectives of gender typology, gender differences, and consumer behaviour rather than separating gender from design. They acknowledge that the roots of the gender divide in design are influenced by age, social status, identity and role in choosing styles, colours and styles of clothing (Reis et al., 2022), and based on this, mixing, blending and distorting gender-expressive designs to subvert the practice of traditional binary gender norms (Vasan et al., 2019).

From the perspective of marketing research on genderless clothing design, foreign research started earlier than domestic research, domestic research is still in its infancy. After combing through the literature, it was found that foreign studies were mainly conducted from two perspectives: consumer behaviour and consumer psychology. Research on consumer behaviour emphasises that factors such as consumers' social background, behaviour, and clothing styles prior to purchasing genderless clothing influence consumers' perceptions and willingness to purchase genderless clothing, and looks at consumers' motivations for purchasing genderless clothing designs and the purchasing experience (interactions with purchasing stimuli, including variables such as salespeople, lighting, and smells) (Bardey et al., 2020). Consumer psychology research focuses on consumer preference, practicality, and emotional needs from three perspectives: function (protection, style, cut, breathability, etc.), expression (values, personality, lifestyle, etc.), and aesthetics (artistic elements, principles, and design, etc.), on the basis of the study of consumer behaviour for gender-neutral apparel design (Buentello et al., 2022). It was also found that the study of genderless clothing design from a consumer psychology perspective overlaps in some sense with feminism and equality of character in sociology (Reis et al., 2022). The study also found that studying genderless clothing design from the perspective of consumer psychology overlaps in a certain sense with feminism and equality of character in sociology, and that changes in consumers' psychological perceptions of gender affect designers' ability to discover new consumer expectations (Oetojo, 2016). The two types of studies are mostly contingency studies, lacking relevant theoretical foundations to support them and effective countermeasure studies to address the theories. This is to a certain extent unable to provide scientific and effective help for the future development of genderless clothing design. In China, the exploration of genderless clothing design began with the establishment of the 'Bosie' brand in 2018, and related theoretical research has been enriched, but it is mostly focused on the analysis of the market factors of the popularity of genderless clothing styles, the characteristics of genderless clothing structural design, as well as the application and development of genderless clothing styles, compared with the practical exploration of genderless clothing design from designers to consumers in foreign countries, the research attention is relatively insufficient.

To sum up, research results on 'genderless clothing design' are relatively abundant, focusing on the origin and development of genderless clothing design, the relationship between gender and fashion design, and consumers' perception of genderless clothing consumption, etc., but there is a lack of reflection and research on the key elements of the formation and development of "genderless clothing design" and the evolution of the logical relationship between the elements. Therefore, this paper systematically compiles and analyses the relevant textual materials of genderless clothing design based on the rooting theory, and constructs a theoretical model of fashion interdisciplinary research on genderless clothing design, so as to provide theoretical reference for the sustainable development of genderless clothing design.

3. RESEARCH DESIGN

3.1 Method

Rooted theory is regarded as the most scientific methodology in qualitative research, which can comprehensively and deeply explore the causal relationship of social events and construct new theories (Chen, 1999). This paper examines the key elements of 'genderless clothing design' and the logical relationship between the elements, which is a distillation and summary of the problems existing in the practice of genderless clothing design, and then initially builds a theoretical model of genderless clothing design. Therefore, this paper adopts the method of rooted theory to collect and analyse textual materials such as research papers, news reports, interviews with entrepreneurs and reports on genderless clothing design, and then analyses the textual materials using the three steps of open coding, axial coding and selective coding, in order to initially construct a theory on the evolution of genderless clothing design, in order to identify the key elements and carry out logical refinemen.

3.2 Data Collection

In order to ensure that the sample meets the theoretical sampling criteria and satisfies the research on genderless clothing design, the data for this paper was obtained from textual information such as research papers, news reports, entrepreneur interviews, and research reports on genderless clothing design from CNKI, Google Scholar, CFW.cn, Zhihu.com, Sohu.com, and other websites, with a total of 65 textual information collected, including 25 research papers, 35 fashion news reports and reports, 5 interviews with entrepreneurs. The sample size was determined by sampling according to categories, and multiple rounds of sampling were conducted according to the principle of theoretical saturation. A total of 25 samples in each category were taken for coding in the first round, and a total of 20 samples in each further category were taken for coding in the second round. A further total of 15 samples were taken for coding in the third round of sampling, but it was clear from the coding that the theory was saturated in the third round of coding.

3.3 Open Coding to Distil Concepts and Categories

Open coding is to encode, identify initial concepts, and refine categories from the original utterances of the original textual materials (Chen, 1999). First, textual materials such as essays, news reports of entrepreneurial interviews, and research reports were imported into the Nvivo12 software, and the original representative statements related to genderless clothing design were extracted and coded as free nodes according to the classification of content while retaining the original meaning. Secondly, the concepts were identified, and nodes with duplicated meanings were constantly compared, summarised and merged, and nodes with less relevance to genderless clothing design were eliminated. Thirdly, concepts that have more than one common direction are further refined into an initial category. For example, 'media publicity', 'picture publicity', 'celebrity communication', 'visual language', 'channel advantage' are summarised into the category of 'channel communication', and finally formed 122 initial categories. For space limitations, an example of an open code is shown in Table 1.

Table 1: Examples of open coding (in numerical order of textual information)

Initial categories	Partial primitive statements (initial concepts)
Trend evolution	f ₁ From the boyfriend trend to the current 'genderless' trend, the evolution of fashion trends is closely linked to the ebb and flow of social and cultural trends.... (fashion trends and social trends)
Fast market development	f ₁₁ According to CBN Data's 2018 Trend Culture Development White Paper, gender-neutral styles are growing at a rate of 341% ..., and the consumption of 'unisex' apparel in the trend market is increasing. (high market growth rate and consumption heat)
Launch of new products	f ₄₄ Givenchy has launched a genderless make-up collection and Cartier has launched genderless bracelets and rings...(genderless make-up/bracelets/rings)
Change in industry chain	f ₆₀ ...genderless clothing creates unisex version, reduces SKU with the same models for both men and women, and reduces inventory and cost...(reduce SKU, inventory and cost)
Increase in genderless clothing brands	f ₉₀ The concept of 'gender-neutral' clothing design has been adopted by many brands, and a number of new brands have taken root in this field. (numerous brands embrace genderless concepts and take root)
Reduce pollution	f ₁₁₄ Eileen Fisher designs inclusive sized clothing to reduce greenhouse gas emissions produced during the production of clothing. (Reduction of greenhouse gas emissions)

3.4 Axis Coding to Establish the Main Category

The task of principal axis coding is to develop the nature and dimensions of the categories and to discover the underlying logical connections between the categories in order to develop the main categories and their sub-categories. This study explores the key elements and theoretical logic of genderless clothing design, categorising the different categories according to their logical intrinsic connections at the conceptual level, and summarising five main categories (see Table 2).

Table 2: Main categories of axis coding formation.

Main Category	Subcategory	Subcategory connotations
Design Conditions	Fashion trends	The trend is a natural progression of genderless clothing design from cultural phenomena that respond to the waves of the times, consumer trends, and fashion brand designers.
	Market Potential	Market potential refers to the market demand for gender-neutral clothing design, the style potential, and the potential for coordinated development of the design supply.
	Barrier Removal	Barrier removal is the implication of breaking away from the traditional context of binary gender perceptions and pursuing a free and equal fashion experience.
	Channel Communication	Channel communication refers to the three dimensions of visual language such as social media, celebrity imitation effect, and image publicity to promote genderless clothing design products.
Consumer Perception	Platform Construction	Platform building refers to the provision of mechanisms to ensure the development of genderless fashion design projects, and to guide the development of genderless fashion design in the form of adding 'genderless' collections to fashion weeks and participating in leadership summits.
	Personality Values	Consumers wear gender-neutral clothing, wanting to be cool and look good while seeking social acceptance for their unique personalities.
	Aesthetic Value	Consumers have reached a consensus with the public on the 'pursuit of orientation' and fashion goals of genderless clothing, regardless of gender, season or material, and with a de-gendered aesthetic.
	Emotional Value	Consumers' judgements of buying interest, values and standards change through emotional connection and consumer interest.
	Social Values	Consumers wear genderless clothing to reduce gender role norms and create opportunities to construct and communicate social identities.
Design Planning	Experiential Values	Consumers feel both spiritual and material satisfaction in the scenes and shopping experiences set up in physical shops.
	Wide Range	The richness of the design category is a reflection of the potential of genderless clothing design and development of garments from a single category, multiple varieties, and multiple styles.
	Numerous Design Elements	The designers work on gender-neutral clothing design from five design elements: shape, style, colour, detail and gender.
	Stylistic Unity	Designers combine the characteristics of men and women and use a combination of design language to form a genderless clothing style with a unified image and practical performance.
Design Development	Confluence of Factors	The designers believe that genderless clothing design is based on the fusion of multiple factors such as aesthetics, comfort, compatibility and functionality.
	Design Marketing Collaboration	Design cooperation between the main body through the differentiation of the cooperation, coordination of the resources of both parties to the cooperation, the planning of differentiated marketing content, to achieve complementary advantages, to expand the market coverage.
	Extended Product Development	The design co-operative entities work together to develop genderless clothing design-related products based on the matching and complementary nature of design resources and co-design.
	Supply Chain Construction	Design collaborators are choosing to increase the rate of iteration to achieve sustained growth, which in turn is driving supply chain upgrades and capital focus on back-end supply chain projects.

Design Effect	Economic Effect	The economic benefits of genderless clothing design include halved supply chain costs, reduced inventory and minimalist energy savings.
	Endogenous Growth Effects	The impact of gender-neutral clothing design on the industry itself has included an increase in the size of the industry and more up-and-coming brands taking root in the field.
	Environmental Effect	The environmental benefits of genderless clothing design include the use of renewable fabrics, reduction of greenhouse gas emissions and recycling.

3.5 Selective Coding to Complete the Definition of Core Categories

Selective coding refers to the systematic analysis of the full range of categories found and then grouping the relevant categories together in series into a core category, systematically analysing the relationship between the core category and the other categories, and integrating most of the findings into a broad theoretical framework (Chen, 1999). This study takes 'the key elements and theoretical logic of genderless clothing design' as the core category, and builds a story line around this core category as follows: the design conditions are the real driving conditions for the realisation of the design goal of 'genderless clothing', and they are also the basis for the perception of the consumers of genderless clothing. Consumer perception, design planning, and design development are the feasible paths to promote the design of 'genderless clothing', and they overlap with each other to produce a common design effect, which is the reality of the effectiveness of genderless clothing design, as well as the design impetus brought about by the expectation of the effectiveness.

4. KEY ELEMENTS AND LOGICAL INTERPRETATION OF GENDERLESS CLOTHING DESIGNS

4.1 Key Elements and Theoretical Logic Models for Genderless Clothing Design

Through coding the textual information of research papers, news reports, interviews with entrepreneurs and research reports on the development of 'genderless clothing design' in China, a complete 'story line' centred on the key elements and theoretical logic of genderless clothing design was constructed (see Figure 1). Fashion trend, market potential, elimination of barriers, channel dissemination and platform building are the real conditions for the development of genderless clothing design, while design conditions and expectations for the results of genderless clothing design (economy, environmental protection and endogenous growth effect) are the motivation for genderless clothing design, and consumer perception, design planning and design development are the practical paths of genderless clothing design.

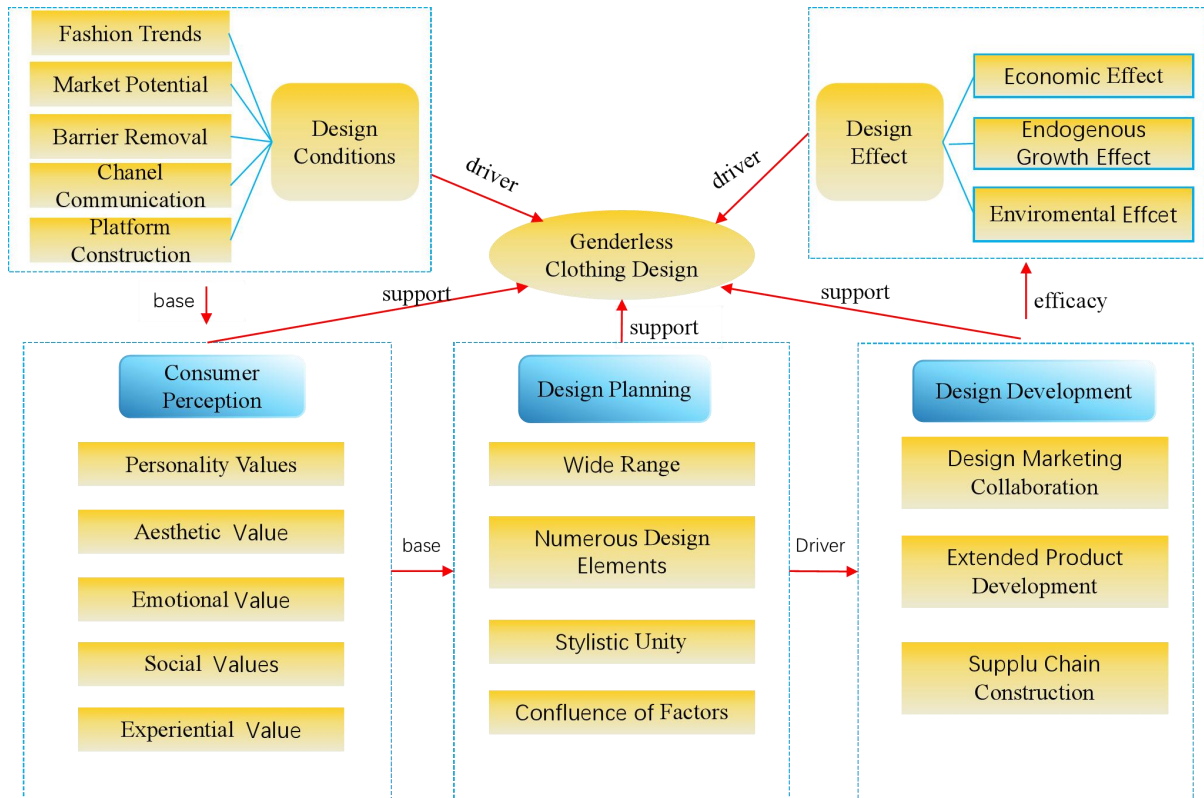


Figure 1: Key elements and theoretical logic model of genderless clothing design based on rooted theory

Among them, consumer perception (personality, aesthetics, emotion, experience and social value) is the design basis for genderless clothing design planning, design planning (design categories, design elements, shaping styles and multifactorial integration) ensures that the design matches the needs and abilities of the object to be designed, and design development (design product development, design and marketing co-operation, and supply chain construction) is the deepening of the development of genderless clothing design. The key elements of the model are described below.

4.2 Key Elements and Connotations of Genderless Clothing Design

4.2.1 Design Conditions

Design conditions (trends, barriers, channels, platforms and market potential) provide incentives for the practice of 'genderless fashion design' and guarantee consumer perception, design planning and design development, which are the driving factors for the development of genderless fashion design.

Trend is a natural progression of genderless clothing design from social and cultural phenomena that respond to the waves of the times, consumer trends, and the promotion of fashion brand designers. Firstly, the rise of women's power and the feminist movement, which breaks down gender barriers and makes 'cross-dressing' more acceptable to the general public, is in line with the sociological theory of coolness, which seeks to transcend 'equality between men and women' and subvert the traditional gender dichotomy (Song, 2023). Secondly, more and more luxury, sports and fast fashion brands are introducing 'genderless design' into their clothing, which has become a new fashion trend. The elimination of barriers refers to genderless clothing design that breaks down and challenges the stereotypical binary gender differences in the traditional clothing framework, designing clothing products that go beyond the binary design thinking and are compatible with men and women's sexes, ages, body types, preferences, and usage scenarios in terms of style, design, and silhouette, and use clothing with weakened gender characteristics to promote gender equality, affirmative action between men and women, and to provide a free and equal wearing experience to the consumers. Channel communication promotes genderless clothing design products in three dimensions: social media publicity, celebrity imitation effect, and visual language such as image publicity. The fervour of genderless clothing design in China is closely linked to multiple communication channels in the context of digitalisation. Social media such as Tik Tok, bilibili and Kwai have to a certain extent eliminated the

geographical barrier between consumers, coupled with the consumer imitation effect brought about by the influence of celebrities and the wide dissemination of promotional pictures of male and female models wearing the same type of clothing, which has led to the convergence of the aesthetics of the first-tier cities and small-town youths, and then, through the seeding of grass in Xiaohongshu and the precipitation of We-chat, genderless clothing design has the same attraction to consumers all over the world. As far as platform co-construction is concerned, platform theory suggests that platforms guide and facilitate transactional co-operation between two or more clients through the aggregation of resources and transformation of relationships in a certain space or place (Xv & Zhang, 2006). As a new track, gender-neutral clothing design involves more resources and cooperation, and the relationship between stakeholders is complicated. Building a platform is an effective measure to coordinate the effective distribution of resources and balance the interests. At the same time, it provides a mechanism to guarantee the development of genderless clothing design projects, as well as a platform and communication medium for co-operative product development, design and marketing co-operation, and cross-border co-operation discussions among various design entities. Market potential refers to the large target group covered by genderless clothing design, which has great potential in terms of market demand, style potential and coordination of design supply, providing space to promote it from niche to mass and maintain consumption heat.

4.2.2 Consumer Perception

Consumer perception (personality value, aesthetic value, emotional value, social value, experiential value) is the basis for designers to understand the needs of consumers, but also one of the feasible elements to promote the realisation of genderless clothing design, and the judgement of it directly affects the success or failure of brand design planning. Customer perceived value theory also believes that market demand should be orientated to consumer perception (Zeithmal, 1988).

The value of individuality has been summarised in the theory of consumer behaviour in terms of 'uniqueness' and 'identity' (Wang at al., 2023). Consumers go beyond the limitations of gender elements in gender-neutral clothing design, seeking clothing that matches their temperament and image to emphasise uniqueness, while expecting the clothing they choose to be in line with fashion trends related to the values of the target market in order to gain social acceptance. Aesthetic value is a certain attribute (cool, modern, young, good-looking, etc.) in the aesthetic object that can satisfy the aesthetic needs of consumers and cause them to feel aesthetic feelings. Genderless clothing design represents a new dimension of beauty, an inclusive art form that is no longer bound by elements such as gender, season or even material, and reaches a consensus with the public from a de-gendered aesthetic perspective. Emotional value is that consumers are influenced by products, shops, words and designers of similar appearance, subconsciously contains more or less attention to self and breakthrough of stereotypes, so that their interest in purchasing genderless clothing, values and standards of judgement change, looking for an emotional and spiritual fit and resonance. This is consistent with the theory of customer perceived value, which suggests that quality design, content design and spiritual design that can resonate with users is truly good design, and can also quickly establish a connection with consumers and become a material vehicle for them to express their emotions and gain consumer recognition. Social value is recognised in the customer perceived value theory as an expression of self-satisfaction and a sense of belonging (Bai & Cui, 2019). Early on in the development of genderless clothing, there was an emphasis on the cultivation of gender lessness as a concept that clarifies that masculinity and femininity are merely expressions and symbols that advocate for the reduction of old gender role norms against men and women, and replacing them with key roles that are determined by competence and merit (Dikkar, 2021), which is consistent with self-consistency theory that suggests that in the process consumers do not care about the world's eyes, crave for self-uniqueness and want to to break away from the traditional aesthetic gaze and react to their own identities and concepts (Buentello et al, 2022). Experience value is that consumers use multiple senses such as vision, hearing, smell, etc. to feel both spiritual and material satisfaction in the scenes, installation design and shopping experience laid out by physical shops. Not only can they buy personalised clothes to their liking, but they can also take photos in shops with a rich Netflix atmosphere, which is related to the high degree of customer participation, brand services and other factors, and plays a positive role in the customer's willingness to buy (Cui & Qv, 2020). Therefore, consumers want more than just status symbols; they seek a whole different set of personalised genderless clothing design products and shopping experiences. As far as genderless clothing design is concerned at this stage, consumers' perceived value needs are the key issue constraining the development of genderless clothing design. Therefore, at this stage, designers and creators fully understand the consumer's perceived needs as a prerequisite to further deepen the development of genderless clothing design.

4.2.3 Design Planning

Design planning (design elements, style shaping, multi-factor intermingling and design categories) is a process whereby a company or brand seeks to design gender-neutral apparel that meets consumer perceptions from the consumer's point of view, on the basis of understanding the psychological needs of the consumer, so as to ensure that the design matches the needs and abilities of the object to be designed (Buentello et al., 2022). The design element is that designers design genderless clothing according to consumer demand in terms of shape, style, colour, details and gender. The shape should be 'male and female compatible', conforming to the body structure of men and women (Bardey et al., 2020); the style should adopt unisex silhouettes and design elements; and the colours should go beyond the traditional black, white and grey, adding some new design language of patchwork and colour collision. At the same time, gender is used as a design element to highlight more detailed designs, trying to make every design aptly show the style of clothing. Style shaping refers to the comprehensive use of design language by designers to form genderless clothing style image unity and practicality, and previous studies have also shown that the important concept for genderless fashion designers and consumers is style, not gender (La Ferla, 2018). This conclusion is in line with the report 'In Fashion, Gender Lines are Blurring', which argues that designers need to focus on styling in order to appeal to consumers who care about the design itself but are not limited to gender (Lin et al., 2022). Multi-factor intermingling refers to the fact that in addition to design elements and style shaping, genderless apparel design involves the integration of multiple factors such as aesthetics, quality, comfort, compatibility, functionality and intent. It is not enough to have a beautiful concept, but also to take the time to ensure the quality of the product, comfortable and breathable fabrics, good craftsmanship, durability, and the brand's service are integrated to express it. In addition to this, it is important to optimise the supply chain and quality control processes to find a balance between satisfying aesthetics, wearing experience, and input-output ratio. Design categories reflect the potential of genderless clothing design development from single category, multiple varieties and multiple styles. In addition to the well-known T-shirts, blue jeans, jumpers, shirts, casual trousers, jackets and other clothing, designers need to use design thinking to expand the category of genderless clothing by integrating the use of design elements under the aesthetic dividend.

4.2.4 Design Development

Design development is the deepening development of genderless clothing design planning. In order to increase the attractiveness of this category in the apparel industry, co-development of genderless clothing design-related products, promotion of supply chain construction and design and marketing co-operation among enterprises are effective ways to promote its development.

First of all, the reasonable development of related products with genderless clothing can turn resource advantages into design development advantages, fully explore the cultural connotation of genderless design, and form influential genderless clothing design brands. For example, Givenchy brand in addition to the development of genderless clothing series, but also launched a genderless makeup series 'Mister'; Gucci's men's show in addition to men and women are suitable for clothing, and break the age and gender of genderless jewellery, and then with the genderless display of the store, the entire genderless clothing design. The whole genderless clothing design resources are integrated and developed to give full play to the synergistic effect of their respective brands, avoiding the involution of design products and low-level competition. In the design process, we can explore the use of design elements, single category, multiple varieties, multiple styles, etc. to show different brand cultures, do a good job in the innovation and transformation of genderless clothing design, and jointly develop and design one-stop genderless design products. So as to create a genderless clothing design product system with rich categories, distinctive features and clear hierarchy.

Secondly, supply chain as the driving engine behind the brand, supply chain construction is the key to the improvement of the quality and consumer experience of genderless clothing design. Focusing on the supply chain and suppliers behind the garment plays an important role in the development of genderless garment design.

Thirdly, the development of genderless clothing design, in addition to a rich variety of categories and a transparent supply chain, should also choose appropriate marketing channels, expand market share, improve visibility, and carry out design and marketing co-operation. On the one hand by integrating and coordinating the resources of both parties of the cooperation, according to the tonality of each marketing channel to take differentiated cooperation methods, planning the marketing content that is different from each other, to achieve complementary advantages and expand the market coverage. On the other hand, it can transform the inward volume of design products into outward demand, expand the design development space in the region, make the aesthetics of the first-tier cities and small town youth converge continuously, make genderless clothing have the same attraction to the consumers around the world and carry out genderless design activities.

4.2.5 Design Effect

The Design Effect is the expectation of genderless clothing design outcomes as a new approach to sustainable fashion and a ground-breaking ideology that can have an economic effect, an environmental effect and an endogenous growth effect.

Firstly, economic efficiency is a fundamental manifestation of gender-neutral clothing design, due to the gender-neutral nature of its garments, the reduction of design details, the better use of fabrics and accessories, the optimisation of physical space, the reduction of overheads, the reduction of production pressures and the reduction of inventories (Una & Barros, 2019). This study finds that genderless style choices enhance the rate of iteration to achieve sustained growth, and because men and women share the same styles, the cost to the brand of research and development to the supply chain from design, pattern making, and production is also significantly reduced, which contributes to the sustainability of the apparel industry.

Secondly, the environmental effect is a special manifestation of genderless clothing design. Genderless clothing design is fashionably upcycled due to the enhanced use of fabrics and accessories, the use of natural dyes, the reduced consumption of non-renewable resources, and the recycling of biodegradable materials from fabrics (Hou, 2022). And these garments can be redesigned and worn as many times as possible, reducing toxic emissions during manufacturing and transport. This is in line with the initiative that sustainable fashion should satisfy the maximum number of consumers with the minimum number of choices and should be encouraged and perpetuated. Thirdly, in addition to its economic and environmental effects, genderless clothing design plays an important role in designing its own apparel industry, which can be demonstrated by the increasing number of brands taking root in this circuit and the expansion of the industry.

Third, in addition to the economic and environmental effects, genderless clothing design plays an important role in designing its own apparel industry, which can be manifested in the increasing number of brands taking root in this track and the expansion of the industry's scale.

For example, in 2018, the Chinese genderless clothing brand bosie was established; in 2019, the Chinese genderless clothing brand Naidao (Na. d) was established; in 2020, the Chinese designer Wang Tianmo newly launched the genderless brand Oinkoink. In addition, in 2021, Jingdong released a 618 report, '9 Trends in Fashion and Trend Consumption of Generation Z', which shows that since 2021, the turnover of online shopping for men's and women's clothing of Generation Z has increased by 4.3 times year-on-year, and the turnover of Oversized (gender-neutral) clothing has increased by 1.5 times year-on-year. The above shows that the endogenous growth effect is a value-added manifestation of gender-neutral apparel design, which acts as a catalyst for the development of the apparel industry itself and its relationship with other industries.

5. CONCLUSIONS

The purpose of this study is to analyse and summarise the existing practical experience from a holistic perspective by rooting in theoretical analysis, to explain scientifically the motivation, feasibility and value of the development of genderless clothing design, so as to make it one of the initiatives for the sustainable development of the clothing industry, and to provide a theoretical framework that can be drawn upon for the future development of genderless clothing design. The purpose of this study is to analyse and summarise the existing practical experience from a holistic perspective by rooting in theoretical analysis, to explain scientifically the motivation, feasibility and value of the development of genderless clothing design, so as to make it one of the initiatives for the sustainable development of the clothing industry, and to provide a theoretical framework that can be drawn upon for the future development of genderless clothing design. At the same time, it summarises and compiles the design focuses that designers should pay attention to in the feasibility path and the design effectiveness brought by genderless clothing design, helping brands/designers to better study the target audience and consumer needs, and in this way solving the interdisciplinary problems in the logic of theory-practice, providing a reference for the implementation of more genderless clothing design development strategies, the formulation of planning proposals and innovations in the future.

This study constructed an interdisciplinary theoretical model of 'Key Elements and Theoretical Logic of Genderless Clothing Design', which includes five key elements: design conditions, consumer perception, design planning, design development and design effects.

This study not only draws on existing theoretical research on genderless fashion design from different perspectives, but also includes newly discovered categories and relationships:

Firstly, the results of the study suggest that design conditions, as the reality of genderless clothing design, provide an environmental guarantee for its development, both individually influencing genderless clothing design, as well as providing a design basis for consumer perception, design planning and design development, and overlapping with other factors to produce a common design effect. This study supports the idea that a design-supportive environment promotes the success and development of genderless clothing design (Lin et al., 2022).

Secondly, consumer perception, design planning, and design development are feasible practical pathways to promote genderless clothing design and process factors in developing genderless clothing design. Until now, it has been widely recognised that clothing is used as a means of self-expression and communication of inner social desires, emotions and emotional regulation. Designers carry out design planning in the context of perceived consumer needs, taking into account factors such as aesthetics, quality, comfort, compatibility, functionality and aesthetics, intent, and wearing experience, and grasping the style of genderless garments in terms of design elements such as fit, style, colour, detail, and gender, in order to ensure that the design matches the needs and abilities of the object being designed (Buentello, 2022). On this basis the brand promotes the supply chain construction, develops genderless related products, or two powerful brand IPs co-branded CP models, using the dissemination of the Internet to bring their respective synergies into play and realise the leaps and bounds of genderless apparel.

Thirdly, the design effect is the result of the conditions of genderless clothing design, the process of feasible practice, the development of design, and also the driving factor for the development of genderless clothing design. It has been pointed out that with the disintegration of gender barriers, genderless clothing is fully compatible with both the phenomenon of transient styles and trends in the apparel market and the pattern of sustained demand for new products in the apparel industry (Dikkar, 2021). On the one hand, genderless clothing reduces design details and goes beyond the basic parameters of form and function, allowing consumers to think beyond 'green' and 'eco-friendly' (Santons et al., 2016). On the other hand, the relaxed silhouettes of genderless garments that serve everyone and promote shared wardrobes and minimalist lifestyles in the home can be a new approach to sustainable fashion (Dikkar, 2021). Brands or companies are also aware of the impact that designing genderless clothing and related products has on themselves, society and the environment and what they should strive to do in the future to increase their positive impact.

Therefore, the findings of this study provide insights for companies or brands wishing to enter the genderless apparel design camp. Supported by the market environment, designers use design thinking to design genderless apparel that meets consumers' needs by understanding consumers' perceived value needs. On this basis, they can use the supply chain behind them to drive the iteration of the apparel industry, develop related products and co-branded designs, and choose appropriate marketing channels to gain more customer recommendations and recognition, thereby generating a wider design effect.

Finally, given the lack of previous empirical research on genderless clothing design in China, the data in this study used qualitative research materials such as fashion information reports, news reports of entrepreneur interviews, and literature on genderless clothing design. Based on the principle of theoretical saturation, the process of coding and analysing the data took into account the completeness of the information and data as fully as possible, but due to the publishers of the information materials themselves having a certain degree of subjectivity and focus, which led to a reduction in reliability and validity. Future research could compare and deepen the results of this study's theoretical model by using the Delphi method to examine the conceptual structure of genderless clothing design from the perspective of designers and consumers respectively.

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