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Research Article

Practical Path of Stock Garment Redesign Under Digitalization Perspective

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Abstract

Aiming at the two core issues of digital transformation and upgrading of Chinese clothing enterprises and inventory clothing, this paper establishes the development path and characteristics of inventory clothing redesign from the aspects of design techniques and clothing technology. Through the online services of R&D and design, online and offline collaborative services at the manufacturing end and other forms to complete the digitalization of the whole chain integration of clothing planning, plate making, production, publicity, sales and other links to accelerate the formation of a digital service hub for inventory clothing. Through the integration of inventory clothing into the cloud design and manufacturing synergy services, combined with intelligent technology, to enhance the terminal retail services from various aspects, so that the clothing enterprise inventory clothing through redesign to complete the digital transformation and reconstruction. Taking the core problem of inventory clothing, which exists in all apparel enterprises, as the basic breakthrough point, the use of data-based means to break through the barriers of each link, realizing the new apparel development situation of sharing data and creating a digital ecosystem.

Keywords

Digitalization, Stock Clothing, Redesign

1. Introduction

As two major trends in national development, digitalization and greening, digitalization to promote greening and comprehensive green transformation of economic and social development will have the overall effect of "1+1>2". 2023, the State Council issued the "Overall Layout Plan for the Construction of Digital China", which puts "making positive progress in the construction of digital ecological civilization" as an important goal for the construction of digital China in 2025, and proposes "building a green and intelligent digital ecological civilization". [1] In 2023, the State Council issued the "Overall Layout Plan for the Construction of Digital China", which puts "positive progress in the construction of digital ecological civilization" as an important goal for the construction of digital China in 2025, and proposes "building a green and intelligent digital ecological civilization", which puts forward new requirements for the new-generation digital science and technology to help ecological governance. As the world's second most polluting industry after the petrochemical industry, the accumulation of inventory in the fashion apparel industry is one of the major causes of environmental pollution that has plagued the apparel industry for a long time. [9, 11]

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1.1. Promote the High-Quality and Recyclable Development of the Garment Industry Under the Digital Environment

The huge amount of accumulation becomes an important factor leading to the operational difficulties of a garment enterprise and the inability of innovation to turnover, while the traditional disposal methods such as selling at low prices or large-scale incineration will cause a large amount of waste of resources as well as serious harm to the environment, which has already violated the principle of ecological civilization construction. The research content of this project is based on digital technology, gradually breaking down the barriers between manufacturers, channel providers and retailers, focusing on the redesign of inventory clothing, and better serving consumers by targeting existing inventory clothing through digital ecological system and based on the traditional core resources of apparel enterprises. [5, 14] It builds ecological digitalized enterprise capability in the stage of style innovation and new product development, and at the same time, turns the re-design of stock clothes into digitalized capability of increasing consumer stickiness to meet the needs of target consumer groups, establishes a perfect digital ecological platform for re-design of stock clothes, and realizes the recyclable development of stock clothes.

1.2. Reorganization and Sharing of Garments in Stock Can Improve Production Efficiency

Reorganization and sharing of existing stock garments through the cloud-based manufacturing collaborative pattern library can improve production efficiency and realize resource reuse. Under the leadership of intelligent technology, the different design forms of stock garments are used to create a panoramic digital consumption scene, thus realizing the precise marketing of apparel products. Combine the traditional clothing enterprises with digital transformation, according to the market feedback combined with the current situation of the enterprise stock clothing for rapid response, change the previous form of marketing and enterprise development concepts, and realize the sharing of data. Through the redesign of inventory clothing to accelerate the actual feedback of the enterprise to the market demand, to the more intelligent and digital direction of change.

2. Current Status of Research on Stock Clothing in Terms of Production and Clothing Design

2.1. Current Status of Research on Inventory Apparel from Production, Management and Supply Chain Aspects

In recent years, the clothing industry from the production, management and supply chain aspects of the inventory of clothing has a more comprehensive research and contribution. In the face of “inventory clothing”, most of the clothing enterprises have practical problems, logistics, supply chain, account management and brand management and other professional direction from the classification, production methods and supplier management forms and other aspects of the theory and the main technology to put forward certain proposals and improvement measures. [2] The “zero inventory” in these theories is a relative concept, and there is no way to fully comply with the rapid response of the market or the state of storage materials in the production and operation chain of clothing. In the context of digital ecological construction, some scholars specializing in production management have also proposed the use of big data analysis for customized production in the form of improving customer demand, reducing enterprise clothing inventory. But by the limitations of the production process and brand homogenization and other reasons, the problem of inventory backlog in clothing enterprises still has not been greatly improved.

2.2. Current Research Status of Inventory Clothing in Clothing Design and Clothing Marketing

Based on the concept of sustainable design, apparel design majors have done some research on different forms of design of inventory clothing, basically focusing on redesign strategies, elements, techniques and meanings, etc. Some of the research centers on a certain type of clothing items, summarizing the methods and approaches of inventory clothing redesign from the design perspective. Some of the studies focus on a certain type of clothing items and summarize the methods and approaches of stock clothing redesign from the perspective of design. Some of the studies try to explore different methods and design processes for recycling stock garments and customizing personalized garments from the perspective of “transformation of old things”. [8] Some of the studies explore the recycling and reuse design methods from the perspective of experimentation and marketing, and advocate the creative design of making the best use of what is in stock.

However, from the perspective of digital eco-construction, there are only a few studies on the digital redesign of inven-

tory apparel and the promotion of brand communication on the basis of design. As the initial stage in the life cycle of apparel products, design plays a decisive role in the energy consumption of apparel production and its socio-economic impact. [10] Therefore, the redesign of inventory apparel based on the goal of digital ecological construction is, to some extent, a useful exploration to solve the inventory problem, which can integrate the resources of pattern making, sampling and production from the source of design, and reuse the original inventory resources. If, on this basis, the communication advantage of the Internet is utilized to promote the inventory clothing redesign path and related clothing products under the view of digital ecological construction, the whole result will have an important role in the stable development of clothing brands and even the clothing industry.

3. Digital Construction Methods for Redesigning Stock Garments

3.1. Model Construction of Redesign Strategy for Inventory Clothing

The inventory clothing redesign strategy of apparel enterprises gives new commercial value and brand value to the existing inventory clothing, and the model construction integrates the existing inventory clothing and new products, so as to realize the benign cycle of apparel products and meet the resource reorganization under the requirements of digital ecological construction. Focusing on the goal of redesigning stock garments, we conduct research on the structure, design details, patterns and technology of stock garments from the perspective of fashion trend and market according to the current situation of stock garments in different enterprises. The re-design of inventory clothing is accomplished through the remodeling of structural silhouette, reorganization of pattern reproduction and change of decorative technology expression, etc., which to a certain extent solves the problem of reuse of existing inventory goods. [7, 13] At the same time, combining the art co-branding, new IP creation and private customization of apparel enterprises to provide strategic references for the construction of redesign models of stock garments, and combining the digital construction of traditional pattern libraries, stock garment pattern libraries and new design pattern libraries, it will play a certain positive role in the benign development of the eco-construction.

3.2. Integration of the Entire Chain of Digitalization in the Apparel Business

Digital technology to promote the all-round integration of new research and development, new manufacturing, new factories and new retail forms of clothing enterprises, research and development and design of online services, manufacturing side of the online and offline synergistic services and intelligent retail and other forms of digital economy construction in the context of the mainstream trend. In this context, the construction of enterprise digital ecological construction integrated into the inventory clothing pattern library is conducive to the recycling of enterprise inventory clothing and the realization of environmental ecological construction. And the inventory of clothing into the digital design service system to promote the formation of a comprehensive e-commerce platform as the core and the theme of the enterprise with clusters of digital services hub, research and development of digital service platforms can be the inventory of clothing layout and other content split reorganization, improve turnover efficiency, reduce R & D costs, promote diversified forms of transactions, open the new channel of digital transformation of clothing.

3.3. Digital Transformation and Reconfiguration of Apparel Companies' Inventory Clothing

Social diversity, mobile trends, the rise of self-media and sales precision analysis tools are fundamentally changing the way consumers buy and use apparel products and services with the support of cloud technology. Traditional apparel enterprises are facing the reconstruction of business models and digital links. In the process of digital reconstruction of apparel enterprises, the existing stock of apparel is relying on digital information technology to reorganize and reconfigure the design elements such as pattern design, fabric implantation and process fusion, to build a new form of design by means of different design models, to improve the internal system of the organization, and to enhance the bonding between the enterprise and the consumers by means of digital re-design. Adhesion. Under the premise of ensuring the completeness of production elements such as styles, fabrics and processes, the digital transformation and reconstruction of apparel enterprises' stock of apparel, combined with the rapid response of the market through big data analysis, and the combination of intelligent retailing and other forms of perfecting the enterprises' emerging digital supply chain pathways, the construction of a more complete enterprise digital operation system. [6]

4. The Goal of Inventory Clothing Redesign in the Perspective of Digital Ecological Construction

4.1. Integration of Stock Garments into Cloud-Based Design and Manufacturing Collaboration Services

Online services at the R&D and design end promote the development of digitization in apparel enterprises, and in this

context, it is important to incorporate stock garments into the digitization service platform to provide digital fashion design services across the entire upstream and downstream chain of apparel enterprises, providing digital solutions for designers, pattern makers, apparel processors, and raw material suppliers, etc, so as to enhance the overall design efficiency and to realize the re-utilization of stock garments.

4.2. Inventory Clothing Combined with Intelligent Technology to Improve Terminal Retail Services from Various Aspects

With the deep integration of e-commerce and clothing enterprises, intelligent manufacturing and personalized customization has become an important wind mouth, and the Internet platform relies on cloud-based design and manufacturing to create digital customization services. [4] The redesign of inventory clothing is applied to e-commerce platforms, physical retail, smart stores, etc., to create a panoramic digital consumption scene, meet the diversified personalized needs of consumers, expand the brand value through the intelligent redesign of inventory clothing, and enhance the terminal retail services in various aspects.

4.3. Combination of Traditional Sales Forms and Digital Inventory Clothing Redesign to Promote a Virtuous Cycle

Digital inventory clothing redesign connects consumers as well as channel traders and other complex chain links. Take digitalization as a means to realize the internal and external docking of the clothing enterprise's stock of clothing, and realize the smooth flow of the whole chain. [3, 12] Constructing a consumer-centric closed operation mode, establishing links between inventory clothing and different consumption scenarios, and balancing the solution of digital inventory clothing redesign of enterprises and the development of digital ecological transformation of traditional sales forms through sharing data and other forms.

5. Conclusion

In the context of the Internet fashion industry and the new state of international economic development, new business logics and brand communication methods are changing. The rationality of stock clothing redesign and the possibility of digital stock clothing reuse are tested through the practice of actual projects. For enterprises, the project of digital redesign of inventory clothing accelerates branding and product upgrading, and the project is accompanied by multi-level integrated marketing activities, targeted development of product lines adapted to trendy shopping trends and with design sentiment to enhance the brand image. [15] By upgrading apparel products, identifying consumer needs, and developing new series of products to attract consumers' attention, the project effectively reduced inventory and increased sales. The model building, digital hub construction and transformation and reconstruction methods developed during the project can be promoted and practiced in different apparel company.

Author Contributions

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Conflicts of Interest

The authors declare no conflicts of interest.

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