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Research on the Application of Digital Technology in Modern Manual Bag Design*

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***Abstract*—With the development of information technology, information technology has been effectively applied in the development of various industries, which has greatly improved the development effect of various industries. The application of digital technology in modern manual bag design can enhance the level of modern manual bag design. Moreover, it can make China's modern manual bag design better cope with the international competitive environment, and is conducive to promoting the long-term sustainable development of modern manual bag design. The application of digital technology in modern clothing design can effectively reduce the operating costs of enterprises, and improve the quality of clothing products, so that greater economic benefits can be achieved in the manual bag design. This paper studies the modern clothing design, pays attention to the application of digital technology, and realizes the organic combination of the two to better promote the development and progress of modern manual bag design in China.**

Keywords—digitalization; manual bag design; design effect

I. INTRODUCTION

In the process of carrying out the modern manual bag design, we must effectively grasp digital technology and strengthen the close combination of digital technology and modern manual bag design, thus effectively improving the effect and quality of modern manual bag design. The application of digital technology provides more ideas and references for manual bag design, which broadens the perspective of manual bag design. The application of digital technology in the manual bag design can more effectively improve the quality of manual bag design, meet consumers' requirements for clothing quality and clothing taste, and effectively respond to the fierce market competition environment. In response to this situation, in modern manual bag design, we must firmly grasp the digital technology and combine digital technology with manual bag design to more effectively improve the quality of manual bag design and meet the long-term development and progress goals of modern manual bag design.

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II. ANALYSIS OF THE APPLICATION OF 3D BODY MEASUREMENT TECHNOLOGY IN MANUAL BAG DESIGN

The application of 3D anthropometry in modern manual bag design focuses on grasping people's demand for clothing and highlighting the individualization of manual bag design to meet people's actual needs. With the continuous improvement of people's material living standards, the combination of digital technology and modern manual bag design pays more attention to the actual needs of consumers, and the relevance of manual bag design is improved. In the process of purchasing decoration, consumers pay attention to grasping their own body shape, so as to make targeted clothing choices [1]. In order to meet people's purchasing needs, in the manual bag design process, it is necessary to grasp the human body and obtain accurate data of the body measurement, and then apply to the manual bag design. However, from the traditional manual strategy, its measurement efficiency is low, and the measurement is not accurate. In order to meet the development needs of modern manual bag design, digital technology has been widely used in manual bag design, which largely compensates for the low efficiency and lack of precision of manual strategies [2]. 3D anthropometric techniques can help to quickly obtain information about the human body and improve the accuracy of anthropometric measurements. In this way, the application of 3D anthropometric techniques in modern manual bag design can meet people's requirements for higher standards of clothing [3]. At the same time, the application of three-dimensional anthropometric techniques focuses on more in-depth study of clothing and grasps the body types of people of different ages and genders. With the help of three-dimensional anthropometric techniques, it is also possible to carry out body type studies for different regions, people of the same age, uniform body type, and same gender. It can be seen that the modern manual bag design by means of three-dimensional body measurement technology can bring greater vitality to the development of the garment industry and improve the effect and quality of manual bag design.

Moreover, it can enable apparel companies to respond more effectively to the fierce market competition environment and achieve long-term development and progress goals.

III. Analysis of the Application of Computer Fitting Technology in Manual Bag Design

In the process of manual bag design, the grasp and analysis of people's fitting data provide effective reference and guidance for modern manual bag design. In the process of fitting, due to the different living environment and working environment of each person, there are certain differences in the temperament, and different people have different differences in the choice of decoration. In the process of manual bag design, it is necessary to grasp this difference and make targeted changes to meet the needs of different people for decoration [4]. In addition, the same garment will show different taste characteristics in different people. In response to this situation, the application of computer fitting technology in manual bag design can grasp individual differences, so that manual bag design pays attention to this problem and enhances the effect of manual bag design. In the process of purchasing clothing, due to the pressure of life and work, people have less leisure time and the number of online shopping is increasing. Online shopping has become one of the most important ways for people to buy decoration. To grasp the consumer psychology of online shopping, and to apply computer fitting technology, it can provide more favorable support for the development of modern manual bag design [5]. At the same time, compared with the traditional human platform model, the data of this model is fixed. With the traditional human platform model, the size design of the decoration is lack of pertinence, and there are major drawbacks. In the application of computer fitting technology, this technology has a certain dynamic, which can make the fitting effect more realistic, thus providing more targeted data for manual bag design. The application of computer fitting technology can reconstruct the human body model in the computer by using 3D anthropometric technology to acquire relevant data information of the human body. In this way, according to the human body model, the clothing can be arbitrarily matched [6]. With the help of computer fitting technology, people can redesign and adjust the clothing according to their needs during the fitting process, so as to feedback the demand data of the clothing. In this way, the application of the fitting technology provides a personalized and targeted design basis for the manual bag design, which helps to improve the effect and quality of the manual bag design.

IV. Analysis of the Application of CAM System in Modern Manual Bag Design

In the process of modern manual bag design, the choice of clothing materials and cutting work will affect the effect and quality of manual bag design. Therefore, the improvement of clothing material selection and cutting quality by means of digital technology has become an important content that modern manual bag designers must grasp. The garment CAM system has applied digital technology by means of computer-aided garment manufacturing systems [7]. In the application of the CAM system, the automation of the auxiliary materials and the automation of the cutting can be realized. At the same time, the application of the system can also realize the transportation of garment pieces to the assembly line, feedback on the production information of the assembly line, and ensure the efficiency of the manual bag design manufacturing by means of manual interaction. However, in the application of the CAM system, it is necessary to pay attention to the grasp of the manual operation. Manual operation is relatively inefficient and prone to errors, which adversely affects garment production. In response to this problem, it is necessary to grasp the digital technology and optimize the CAM system, thereby effectively reducing the cost of the manual bag design. In view of this situation, when applying to the CAM system, it is necessary to combine the manual bag design with the application of the CAM system in combination with the actual situation of the manual bag design, so that the manual operating system and the CAM system as a whole are consistent. Moreover, it is necessary to improve the problems and deficiencies in the combination of the two to more effectively improve the efficiency of the system, make the CAM system more intelligent, and provide an effective reference for modern manual bag design and manufacturing. And through the optimization of the CAM system, improve the economic benefits of clothing enterprises, and promote the development and progress of modern clothing enterprises [8]. In this way, more resources can be invested in the manual bag design to improve the effect and quality of the manual bag design.

V. Strengthening the Combination of Clothing CAD and Manual Bag Design Work

The combination of digital technology and manual bag design enhances the relevance of manual bag design, enabling manual bag design to better integrate consumer needs, improve manual bag design, and promote product creation. In the application of digital CAD technology, the style, fabric, color, pattern, sample, and discharge design of manual bag design can be effectively arranged, so that the relevance and effect of manual bag design can be better improved. Combined with the traditional manual bag design, when the company is performing manual bag design, it faces a large batch size, a single variety, and a slower style change, so that the manual bag design production cannot meet the market demand. This has largely hindered the development of apparel companies [9]. In the application process of garment CAD technology, it can improve the traditional design development mode and improve the efficiency of manual bag design production. At the same time, it is possible to effectively adjust the shape, color, pattern, etc., making the manual bag design image storage more convenient. In this process, the shape and color of the garment can be effectively adjusted according to actual needs, so that the effect of manual bag design can be effectively improved [10]. Effective combination of clothing CAD and manual bag design work, we must pay attention to the choice of dosing, and according to the design situation, make targeted adjustments to the error-prone areas, make the digital compilation more accurate, and thus improve the effect of manual bag design. Combined with the modern

manual bag design, there are many advantages in the application of clothing CAD. And according to the changes in market demand, the garment CAD can be effectively adjusted to make the garment CAD more intelligent development, so that the manual bag design can better meet the market demand. The artificial intelligence application of garment CAD can be combined with the actual needs of manual bag design to carry out intelligent design and layout to realize the intelligent development of manual bag design and realize the organic combination of art and technology. The creation of clothing art is a complicated process and has certain contingency. In the design process, combined with the technical advantages of garment CAD and artificial intelligence, the effect of manual bag design is improved to meet the diversified needs of the market, thus better promoting the development and progress of manual bag design.

VI. Analysis of the Application of Clothing ERP System in Manual Bag Design

In the process of manual bag design, companies use manual bag design to meet market demand, so that clothing products can be better sold to achieve the company's economic efficiency goals. In this process, the application of clothing ERP system in manual bag design should pay attention to the relevance of ERP system and manual bag design. Through the integrated management of manual bag design and garment production, the economic efficiency goal of manual bag design is better realized. The ERP system is software for the manufacturer's system and manufacturing source plan following MRP2. In the application, attention is paid to the comprehensive and integrated management of manual bag design and production, and the design development concept of excellence is highlighted. When applying to the clothing ERP system, it is necessary to grasp the key content of manual bag design, especially to grasp the development of clothing enterprises. At the same time, it is necessary to control and manage the "quantity" so that the manual bag design highlights the "fine" feature, so that the manual bag design is consistent with the actual development needs. In this way, the quality of manual bag design can be improved more effectively by means of the clothing ERP system.

VII. Conclusion

In combination with the development of China's manual bag design, in manual bag design, we must pay attention to the changes in the socio-economic development situation. Moreover, it is necessary to make the manual bag design more targeted, improve the effect and quality of the manual bag design, and better meet the needs of consumers. The grasp of manual bag design should strengthen the effective combination of digital technology and manual bag design, and take advantage of digital technology to improve the quality of manual bag design, so that garment manufacturing meets the aesthetic needs of modern people. It is necessary to pay attention to the advantages of digital technology, truly realize the perfect integration of digital technology and manual bag design, and enhance the relevance of manual bag design to cope with market competition pressure. In addition, in the application process of digital technology, it is necessary to pay attention to the improvement of the problems and deficiencies of the traditional manual bag design, and effectively reduce the operating costs of the clothing enterprises, so that the quality of the clothing products can be better improved to obtain more economic benefits.

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