

The application prospect analysis of C2F mode in clothing e-commerce

Sha Li

*Business department, Beijing Institute Of Fashion Technology,
Beijing, Chaoyang Zone, China*

[†]E-mail: 1041510113@qq.com

www.bift.edu.com

Hong-Zhong Shan[†]

*Business School, Beijing Institute of Fashion Technology,
Beijing, Chaoyang Zone, China*

E-mail: Shz0306@sina.com

Background and definition of C2F model were clarified in this paper firstly. The strengths of C2F model applied in clothing e-commerce were derived from contrastive analysis. The restraining factors of carrying out clothing e-commerce C2F model in the current market environments were also analyzed. Based on the above analysis, the prospect of C2F model applied in clothing E-commerce was forecasted.

Keywords: Clothing;E-commerce;C2F mode; Application prospect

0. Preface

E-commerce has long been trying to intergrate entity commerce by using the Internet. The sales of Tmall on last “Double 11 Day” broke through 91.2 billion ,which indicates the brilliant development of E-commerce in China. E-commerce platforms, such as Tmall, Vanel, JD.com and so on, have become the commonly used shopping websites. Traditional B2C e-commerce model still dominant this market. But in the clothing industry, B2C mode can’t satisfy the needs of try on when people selecting clothes, however the fitting is an indispensable step when people choosing clothes. The O2O e-commerce mode emerged in recent years can only meet this demand of market by means of offline experiences. With the continuous application and development of "Internet +" technology, new C2F e-commerce model allows customers trying clothes through online virtual fitting system, which csn effectively solve the problem arised from the traditional e-commerce mode.

1. The Background of C2F Mode

As of December 2015, textile and apparel accounted for more than 20% of the whole network shopping market in our country, and clothes shopping permeability is by more than thirty percent. As a result, online shopping become an indispensable "entertainment" in people's life, and it is preferred by consumers because of convenience, product diversity, and price advantage etc.. But there are still some problems need to be solved in existing clothing e-commerce pattern, such as the impossibility of trying on, high rate of return, imperfect of after purchase service system. Innovation of the e-commerce modelis urgently expected by the market's nev demands.

With development of the Internet and maturity of the three-dimentional modeling technology, in recent years the three dimensional virtual fitting technology has developed from initial one dimensional static to three dimensional dynamic model, meaning virtual apparel/fitting system has paid off, which provides strong technical support, also a key technology ,for the creating of clothing e-commerce new mode. In addition, cloud data sharing, networking thinking such as business networking let the informatization construction in the whole process of the new model come true.

In order to meet consumer demand and the further development of the electric business platform, in the support of VR technology, clothing e-commerce C2F model arises at the historic moment.

2. Definition of Clothing E-commerce C2F Mode

C2F, full name Customer - to - Factory, namely the consumer to the Factory, is an emerging business model ,which is a new style of online shopping that consumers could have access to custom-made goods through the Internet. Its predecessor is F2C namely manufacturers to the individual, which is of not much difference compared with C2F in operation mode, but F2C provide quality products for customers centering on the production. On the contrary, C2F views consumers as the center, manufacturers produce and supply commodities for customers based on the demand of consumer, so there are substantial differences from the viewpoint of content.

Applying to the clothing e-commerce platform, the essence of C2F is the e-commerce model of "Internet + clothing customization" based on VR technology, its operating process as shown in figure 1:

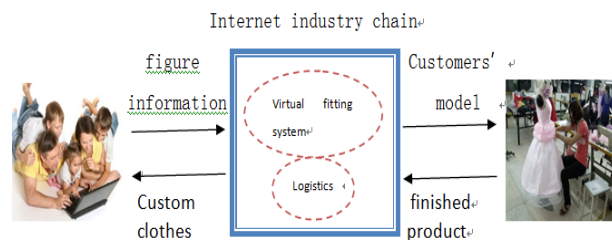


Fig. 1.:System structure diagram

Virtual fitting system is a kind of data model transformation system, which can turn the data of store layout and the human body into 3D scene. Through virtual apparel/fitting system, consumers choose clothes, then product information passed to manufacturers after orders were placed through the Internet, or custom-made clothing, then manufacturers tailor clothes according to the customer's 3D model. Lastly, manufacturers deliver goods to consumers through the logistics system. This business model makes offline experience center, online customization platform, industrial and commercial production informatization system upgrade, realized the flowing of three parties' information. It makes consumers with the manufacturers achieve "zero distance contact" through virtual fitting system to complete the fitting or clothing customization, which effectively achieve the short line connection from consumers to flexible industrialized production of 4.0.

3. Comparative Analysis of C2F Mode and Traditional Mode

Due to the diversity development of network platform, the existing garment e-commerce patterns mainly are B2B, B2C and O2O. Multi-platform competition makes clothing network market almostly reached white-hot, ongoing price war disrupted the clothing market order, led to the product competition and homogenization. It has advantages and disadvantages one each of several kinds of mode, but the common problems of current clothing e-commerce are high rate of return caused by cannot trying on and imperfect of after-purchase service system. Compared to B2C, O2O mode, the advantages of C2F mode are prominent:

Table 1. Comparative Statement of advantages and disadvantages between traditional e-commerce and C2F mode .

e-commerce mode	Representative platform	advantages	disadvantages
B2C	AMAZON Tmall JD.COM	Various commodities; high performance-price ratio	Limited by manufacturers, single product style
O2O	Grouponopentabe	Purchasing after experience, accurate customer service	Lack of physical store support, real-time demand distribution cannot be guaranteed
C2F	-----	(1).Online experience and trading (2).customers can fitting online (3).save time cost	High market investment cost; large model data

From the perspective of supply chain, the model realized the seamless docking of product design, production and transportation. The individual establish connection with the manufacturers through the Internet form of virtual fitting system, which is the real no middlemen supply chain system. Thus its essence is a kind of destocking short economic model. Compared with the traditional e-commerce B2C mode, in C2F mode manufacturers directly communicate with customers, and can effectively solve the problem of product pre-sale, such as the style and quality of products, and after-sales service quality. Put it another way, C2F mode is the upgrade version of O2O mode. In order to ensure the comfort of clothing in the O2O, customers can only experience offline and trading online. C2F allows customers directly experience online, that is, customers could browse commodities of various stores and then try them on in the virtual fitting system. In addition C2F mode also realized the online personal customization, and production method of one-to-one cutting(MTM) brings online shoppers experience entertainment, save time, reduce worries after shopping, at the same time saving costs for manufacturers caused by exchange or return goods. On the other hand, C2F mode realized the industrial chain of shrink in due to direct docking of suppliers and consumers, which solve the problem of inventory accumulation of the traditional model indirectly.

Although C2F mode can maximize the manufacturer's profits and meet consumer demand owing to personalization and differentiation, it is difficult to load goods information because of large goods model data, and physical and chemical properties of fabric is difficult to achieve the reality of the fitting effect. So its application has a certain limitation.

4. The Application Prospect of Clothing E-commerce C2F Mode

The application prospect of C2F mode in the clothing e-commerce platform depends on market demand and the development of VR technology. With the promotion of high quality life, clothing market shows some new characteristics of consumption. "The analysis of China's textile and clothing industry development and investment potential research report in 2016-2021" shows that compared with the garment and traditional custom clothing, personal custom clothing has obvious comprehensive advantage, and conservative measurement of domestic personal custom clothing potential market space is in 102.2 billion RMB. But domestic private custom clothing is generally facing high inventory and high ratio problems, and the existing e-commerce models also cannot meet the demand of new markets. But C2F mode can well solve the problems of the manufacturers, and can meet the personalized needs of consumers, to maximize the interests of businesses and consumers.

Recently, SONY, Google and Oculus all launched virtual reality devices, meaning VR technology began to enter the mainstream consumer market. Based on VR industrial development and investment situation, in early 2016, Goldman forecasted VR industrial foreground, that 2025 VR and AR market scale will reach \$80 billion. VR devices will become the next network platform following computer and cell phone. Mature VR equipment provides a good platform for C2F mode's application development in the clothing e-commerce.

As the result of the VR equipment mature, companies start to prepare for building C2F model. In 2014 JD.COM joined forces with Intel, introduced a 3D virtual fitting technology, and in February of the same year, the United States e-commerce giant eBay bought PhiSix, a 3D virtual the fitting company. Both of them are trying to integrate the 3D virtual fitting technology into the e-commerce platform, meaning clothing e-commerce industry is moving towards C2F mode. In April of 2016, Alibaba formally implemented "Buy +" plan, currently, Alibaba engineers have successfully designed hundreds of commodity models, and the development of Alibaba VR strategy provides the establishment of clothing e-commerce C2F model a substantial progress.

Thumb Wardrobe - C2F menswear personalized customization ecosystem model, factory uses CRM management system to connect APP to self-built model, one version- one person, realized the 3D customization: consumers open the APP, through the network, a full involvement in personalized customization until you receive the product. Realized the flexible production mode of personalized small orders through 4.0 personalized flexible supply chain system.

While existing high import cost in the three-dimensional virtual fitting system and product model data during the constructing C2F, e-commerce must create new pattern to meet the market's new demand, which also meet the

interests of manufacturers, Internet service providers and consumers. Therefore, the application of C2F mode in clothing e-commerce platform is inevitable.

5. Conclusion

From the above analysis, the clothing e-commerce C2F mode can realize on-line customization, meet the new demand of market, adapt to the development trend of Internet+ Times. But at present, it is one of the great difficulties to take the 3D virtual fitting technology incorporated into the e-commerce platform for the application of clothing e-commerce C2F mode, and domestic and foreign enterprises are actively explore solutions, the successful operation of Thumb Wardrobe is a step forward of e-commerce. With the improvement of the technology, It will be subject to the manufacturer and consumer's strong support .Maybe it cannot replace the existing electric business model, but it will be more and more widely used and occupy a certain share of the electricity market.

Acknowledgement

This work is supported by the Key Project of Practice Teaching Team of Beijing Institute of Fashion Technology in 2016(Grant No.ZDSJTD-1605).

References

1. Chang-Kuan Gao, Shou-Zhong Hu. Researching on digital clothing virtual display and network custom business system. Shanghai Textile Science&technology,2014,Vol.42,No.4, pp.57-60.
2. Yi-Shan, Zeng-Bo Xu. The Key Technology of Virtual Fitting System. Journal of Silk,2014,Vol.51,No.12,pp.24-29.
3. Lu Li, Hong Xie, Rui-Chao Cao. The researchment of customer loyalty in customing clothing network underO2O mode. Journal of Silk.2014,Vol.51,No.11,pp.32-37.
4. Zhi-Ming Wu, Li-Juan Mao, Yuan-Yuan Zhao. The catwalk showing movement simulation of virtual clothing dynamic display. Journal of Beijing Institute of Clothing Technology.2010,Vol.30,No.1,pp.14-18.
5. Xiang-Yan, Tao Wang. The application prospect of financial VR technology. China Finacial.2016,No.12,pp.17-19.
6. CHEN E-xiang. E-commerce platform construction based on VR technology. Journal of technology application, 2016.8,pp.64-65.

7. ZHU Xue-ying, GE Meng-meng, XU jiao. Networked application of 3 d virtual fitting technology. Journal of shandong textile economy, 2016, Vol.8,pp.34-36.
8. Song Hwa Kyung,Ashdown Susan P.Investigation of the Validity of 3-D Virtual Fitting for Pants [j].Clothing and Textiles Research Journal, 2015,Vol 33(4),pp.314-330.