

## Research on the Business Model of Cross-Border e-Commerce Export of Wigs

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**Abstract:** China is one of the most important exporting countries of wigs in the world. As the national base of wig production and export, Xuchang exports more than half of the country's wigs. In recent years, Xuchang has actively participated in the construction of cross-border e-commerce (CBE) and promoted the transformation. However, due to the internal factors and international environment, the development is relatively slow. This paper studies the factors that affect CBE of Xuchang hair product enterprises, and provides relevant suggestions to improve CBE construction and promote sales of wigs. In this paper, 66 questionnaires are received by local enterprises for empirical analysis. The results show that material grade, quality, export channels and other factors have an important impact on the export CBE sales of development enterprises. Therefore, enterprises should seize the core elements to enhance the competitiveness.

### 1. Introduction

Wig, which is generally used for decoration, is a kind of product which is made of human hair or special fiber. Black people have a strong demand for wigs because they naturally have little, hard and curly hair with slow growth, and usually need to replace wigs within three months.

CBE reduces the threshold for wigs to enter the international market and expands the distribution channels of wigs. With the large market demand, small size and light weight, wigs have become a hot industry in CBE. According to AliExpress, there is one order for wig every two seconds, and annual sales reach billions of yuan. Xuchang has many advantages in developing CBE, but there is also a lack of core competency in the industry. In order to promote CBE of Xuchang wig industry, this paper combines theoretical analysis with empirical research of enterprises, analyzes the basic situation of current CBE enterprises of Xuchang wig, and provides some suggestions for the future development, and can be a reference for other countries to carry out foreign trade through CBE.

### 2. Literature Review

Omni channel theory holds that in order to meet consumers' purchase demand in any way, enterprises should integrate various channels to provide services for customers. Ansari et al. (2008) found that customers use retailers' multiple channels to buy more products, thus improving customer satisfaction<sup>[1]</sup>. The rise of CBE is providing a new channel for the sales of wigs industry.

The existing literature on international trade of Xuchang wigs mostly focuses on traditional mode. Liu (2008) analyzed the total export volume and foreign exchange earning of wigs in Xuchang from 2004 to 2005 and found that cost advantage affects the foreign trade volume of wigs enterprises<sup>[2]</sup>. Zhang (2014) obtained the product price and labor cost by investigating 5 large wigs enterprises in Xuchang<sup>[3]</sup>. Shan (2016) found that potential factors such as product structure, export market and industrial specialization had a significant impact on the sales of wigs<sup>[4]</sup>.

For the research of CBE construction, qualitative analysis methods are mostly used. Zhao (2014) thinks that the sales platform is an important factor affecting the CBE sales of wigs according to the status of Xuchang wigs<sup>[5]</sup>. Setal (2014) used the grey correlation entropy method to calculate the grey correlation entropy coefficients between different factors and CBE, founding that the logistics

efficiency significantly affected the sales<sup>[6]</sup>. Chang (2018) analyzed the sales data of the express platform and the development status of export CBE, and found the impact of logistics channels on CBE marketing<sup>[7]</sup>. Han and Wang (2018) analyzed the export data and industrial status of Xuchang wig, and believed that enterprises should improve the construction of talent, brand and logistics system<sup>[8]</sup>. An (2019) found that the construction of overseas warehouse mode plays an important role in the CBE sales of enterprises<sup>[9]</sup>. Zhang (2019) adopted multiple regression and found that the level of logistics development affects one of the important factors of CBE marketing<sup>[10]</sup>.

Most of the early related literature are mostly based on traditional international trade data and models, without considering the differences between CBE and traditional international trade. However, the existing research on CBE marketing often starts from the whole industry, and the conclusions may not be applicable to the field of wigs. Some researches on CBE of products are often lack of relevant data support, and there may be deviation in the results. Therefore, it is more important to use the real data of CBE export of products through empirical analysis.

### 3. Research Methods (Quantitative and Qualitative Analysis)

There are few studies related to the CBE of wigs existed. Meanwhile, the export CBE of products is not only a macro problem of the industry, but also a micro subject in operation. In addition, wig CBE sales is a business model, and there are great differences within the industry.

This paper uses the method of questionnaire survey, based on the current research on the factors affecting CBE to some wig's enterprises. The research objects involve different scales and types and try to make the research samples representative. The questionnaire mainly consists of two parts: the first part is the basic information of enterprises and the second part is the test questions, mainly including the relatively difficult to quantify data such as product quality. Finally, through the method of regression analysis, this paper explores the influencing factors of CBE sales of wig.

### 4. Descriptive Questionnaire Results and Analysis

According to statistics, 80 questionnaires were distributed in this study, of which 66 were valid, and the recovery rate was 82.5%. The results of the questionnaire are as follows:

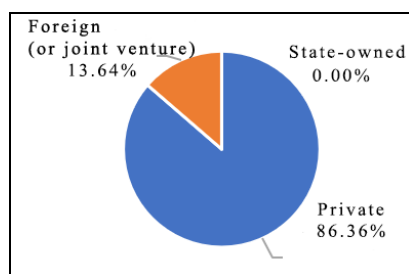


Fig.1 Enterprise Type Distribution

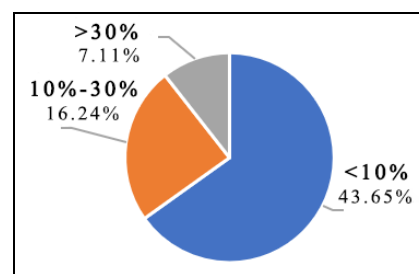


Fig.2 Proportion of Cbe Sales

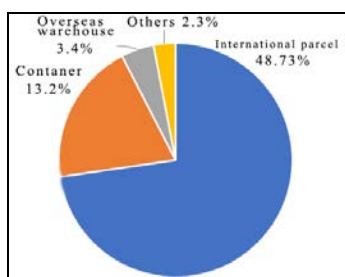


Fig.3 Logistics Channel

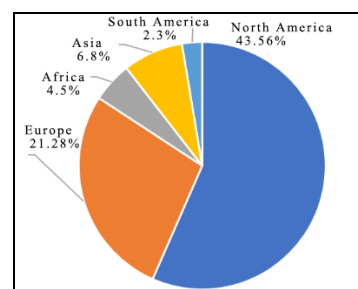


Fig.4 Primary Export Area

Among the 66 enterprises interviewed, private enterprises and foreign (or joint venture) enterprises accounted for 86.36% and 13.64% respectively. From the perspective of the proportion of CBE transactions in total exports, 65.15% accounts for less than 10%, 24.24% accounts for

10-30%, and 10.6% accounts for more than 30%. In the survey, 75% of the respondents used AliExpress and Amazon. Other platforms include Wish, DHgate and eBay. From the perspective of export channels, 72.72% of enterprises mainly export through international small packages, while few exports through containers or overseas warehouses. In addition, 43.56% of the enterprises take North America as the primary export area, while 21.28% and 4.5% of the enterprises export to Europe and Africa respectively.

## 5. Empirical Analysis

In order to further explore the potential influencing factors, this paper uses STATA to carry out OLS regression on the factors of sales of CBE wig export enterprises. In this paper, 66 CBE wig enterprises are selected to construct data in 2018, and the original data is from the questionnaire.

The paper selects the sales of CBE hair product enterprises to represent the development of CBE, and selects 7 factors that affect the marketing of CBE wigs, which are quality, material grade, independent brand, logistics channel, operating time, expertise, sum of sales, as independent variables.

Table 1 Description of Variables

Variables	Abbreviation	Remarks
Sales	rev	CBE sales of wigs in 2018 (USD)
Quality	qua	Divided into 7 levels
Material Grade	mat	Material grade
Independent Brand	bd	0=Yes, 1=No
Logistic Channel	log	0=international small package, 1=overseas warehouse or FBA(Fulfillment by Amazon)
Operating Time	time	The number of years of CBE, rounded down
Expertise	exp	Number of professional employees in CBE
Sum of sales	sum	Total sales of various channels (USD)

After confirming the regression conditions and exogenous assumptions, regression analysis was carried out on the influencing factors and the results are shown in the following table:

Table 2 Inspection Results of Influencing Factors of Cbe Wigs

	The influence of variables on rev
bd	-90034.734 (73914.195)
qua	258969.738*** (58911.076)
mat	21949.503 (59566.434)
log	239101.528** (100561.921)
time	121194.668*** (48310.109)
exp	52427.633*** (15823.096)
sum	0.012 (0.001)
_cons	902.471 (173013.844)
Obs.	66
R-squared	0.737

Standard errors are in parenthesis

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

According to the test results, it can be found that product quality, logistics channels, operating time and expertise have a significant impact on CBE sales while the independent brand, material grade and total sales have little influence.

Recently, with the increase of income, consumers have higher requirements for wigs. However, there is serious homogeneity in wig industry and most enterprises are still dominated by low-end products. The demand for wigs in overseas market is also changing to fashion styles

At present, most of the wig enterprises take international small parcels as the logistic channel, mostly monopolized by the international express giants, which increases the logistic cost. In addition, small parcels increase the transportation time, and brings the risk of capital turnover. The overseas warehouse uses the domestic warehouse in the target market country to pre-store the products, so that the logistic link is directly carried out in one country.

Expertise are particularly important for CBE enterprises. Xuchang wig enterprises are mainly private enterprises and lack professional knowledge, which encumbers the development of CBE business, and leads to the slow pace of transforming and upgrading in the foreign trade of many large-scale enterprises, with CBE sales accounting for small proportion of the total sales.

It is considered that there is a positive correlation between the independent brand and sales of CBE, but the results did not show the significance. For small enterprises, the fixed cost in the early stage is relatively large. Enterprises mainly obtain orders through OEM for foreign customers. Brand building needs more investment, which is not conducive to enterprise expansion, while it is easier to achieve sales growth with the help of other brands.

For wig enterprises, the larger total sales generally mean the stronger production and operation capacity. However, we find that there is no significant relationship between total sales and CBE sales. Although large-scale wig enterprises have accumulated in the industry for a long time, they are used to the traditional trade mode.

## 6. Strategies of Developing Cbe Wigs Export

Based on the characteristics of CBE processes and products, a basic framework is designed to summarize the basic process of cross-border e-commerce export of wigs.

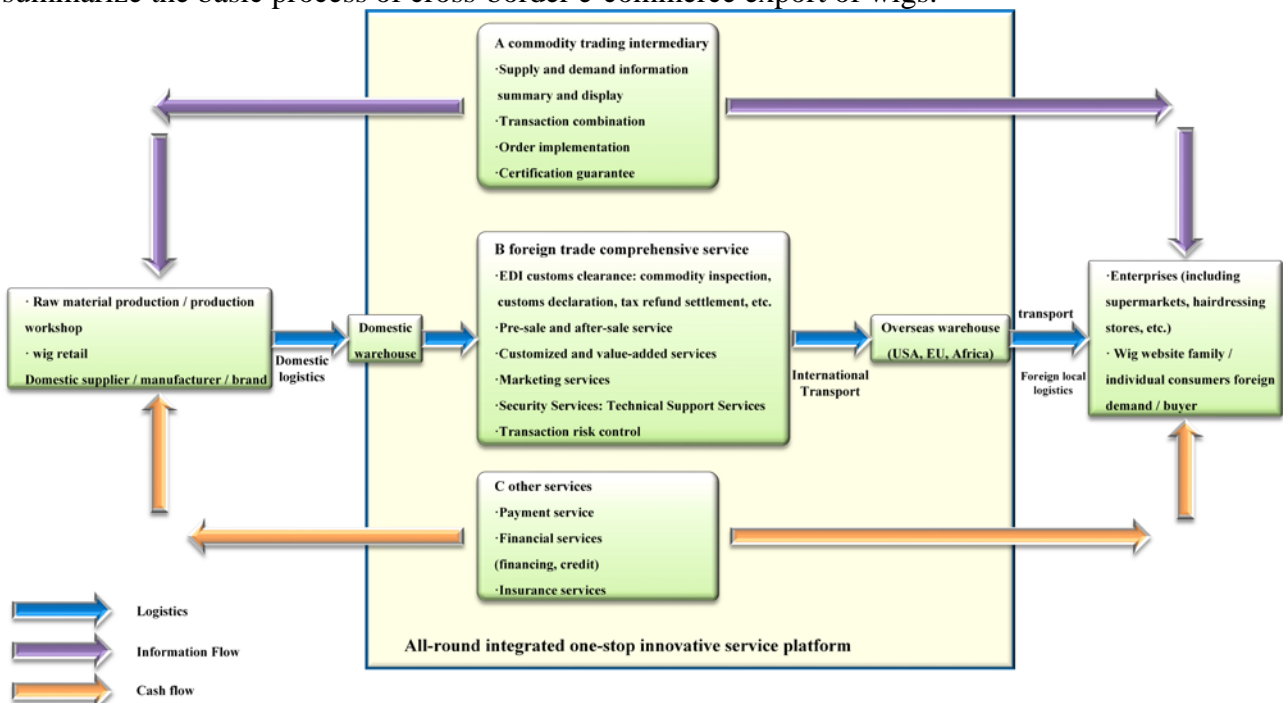


Fig. 5 Basic Framework of Cbe Wig Export

As shown in Fig. 5, enterprises should improve the operation and management of CBE based on the basic market conditions from planning, procurement, production, distribution, return and other dimensions. According to the results of empirical analysis and interviews with related enterprises, this paper provides the following suggestions.

### **6.1 Increase r&d Investment and Improve the Quality**

Products are the basis of CBE sales. Enterprises should strive to improve product quality, enter the market of high-end wigs, obtain greater market share through differentiation, and avoid violent price competition of single low-end products. Enterprises should upgrade the materials and manufacturing process while adjusting style in time according to the international trend to produce wigs that meet the demand.

### **6.2 Improve the Construction of Logistic Channels**

Logistic channels have a significant impact on export CBE sales. Localized overseas warehouse service has become increasingly important in CBE. Since wigs are not easy to be damaged, small and light, using traditional small parcels will increase the logistics cost. By using overseas warehouses, we can improve the transportation efficiency, reduce logistics costs, improve consumer services, and expand the sales of products in the target countries.

### **6.3 Improve the Construction of Talented Team and Improve Export Specialization**

Another prominent problem in the wig industry is the lack of expertise in CBE. Wig enterprises should introduce professions of CBE to better adapt to the changing trade mode, promote the transformation and upgrading of enterprises' foreign trade, bring broader space for enterprises' international development, and expand the scale of international trade.

### **6.4 Establish a Unified Platform to Realize Resource Integration**

At present, Chinese wig enterprises mainly use Amazon, AliExpress to realize CBE export. On these platforms, wigs are not prominent enough. Wigs have a large long-term demand in the global market, therefore, building a CBE platform for wigs with transformation from B2B mode to B2B2C can directly reduce the intermediate steps. In addition, targeted marketing activities can be carried out more easily to better assist the global development of China's wig industry.

### **6.5 Improve the Construction of Independent Brand in a Planned Way**

For small and medium-sized enterprises, when conducting CBE marketing, according to the differences in the construction stage, independent brand building can be avoided to ensure profits. For large and medium-sized enterprises, independent brands can better expand the influence of enterprises in the target market, adjust strategies according to market conditions, and meet the requirements of sustainable and stable development of enterprises. Enterprises should plan to establish their own brands in a purposeful way to better realize CBE sales.

### **6.6 Flexibly Choosing Target Market to Avoid Risks**

At present, the export areas of CBE wigs are mainly Europe and North America. Trade frictions between China and the US have increased the instability of wig export, and enterprises should also consider the tariff increasing as a long-term condition.

From the perspective of wig product demand, the main consumers of wigs are African American groups. Wig enterprises should gradually shift the market focus to Europe and Africa, and be more flexible in the future market selection, and try to avoid potential risks.

### **6.7 Establish Strategic Coordination among Wig Industry**

There are more than 700 local wig enterprises in Xuchang, and the number of enterprises involved in CBE export is about 100. This situation is easy to cause interest conflicts among enterprises, even violent competition. The government should play a more important role in the wig industry, actively guiding enterprises to develop market segments based on their own advantages, realizing the organic integration of the industry, and promoting the overall development of wigs.

## **7. Conclusion**

Based on the analysis of the development of CBE export of Xuchang wig, this paper uses OLS

regression to find the potential factors affecting the CBE sales of wig industry, summarizes the relationship between the potential factors, and puts forward corresponding strategies.

The survey found that the current wig industry lacks a unified and scientific quality inspection standard, the quality system of the hair industry is chaotic, the managerial level of wig enterprises is low, there is a lack of expertise in CBE field, and the brand building and marketing capabilities are insufficient. At the same time, the logistics cost remains high, and there are many uncertainties in the overseas market. Therefore, the CBE wig industry needs to implement strategic coordination, constantly improve the level of CBE specialization, realize large-scale management and transportation by using overseas warehouses, improve customer satisfaction through upgrading experience, adopt modern and scientific marketing methods such as multi-channel marketing, and improve the reputation of China's wigs while introducing huge volume for CBE in B2C platform.

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