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# An Analysis on the Target Market of China's Textile and Garment Export Trade

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## Abstract

The paper uses Analytical Hierarchy Process (AHP) to analyze the primary elements that affect the country's textile and garment export. Then the target market of China's textile and garment export trade is determined. Then it can have the referential meaning and application value to our country's textile and garment export enterprises and departments which may do scientific decisions.

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Keywords: AHP; textile and garment; target market; decision

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## 1. background

Since the nineties of the twentieth century, Chinese textile industry has got the rapid development, thus becoming the world's largest textile trade export country. Especially the quota system of the world's textile has been cancelled, the textile export especially the garment export is developing by leaps and bounds. Meanwhile, the export countries or regions are on the increase. After the subprime crisis of the world has broken out, China's textile and garment export trade has emerged the negative growth. Until

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December 2009, the economy has began to realize recovery growth. Along with the current economic condition has been improved, we should pay attention the targeting in order to consolidate the status as a great nation of textile and garment export. Therefore, how to determine the target market scientifically has become Chinese textile and garment export's main concern.

**2. The establishment of textile and garment export's evaluation indicators system**

*2.1. The principle of the indicator system's construction*

(1) The principle of applicability The specific factors are based on the practical situation of Chinese textile and garment export.

(2) The principle of scientificity The correlation between influencing factors based on the scientificity should be given full consideration which are chosen in a comprehensive and not repetitive status.

(3) The principle of operability The factors in terms of textile and garment export factors are settled in the light of specific conditions. In addition, the means used by the research is feasible and appropriate.

*2.2 The construction of the indicator system*

Five evaluating indicators are used to optimize the target market. Then the five evaluating indicators are respectively: (1) market purchasing power (2) capacity of the market (3) the degree of market monopoly (4) political stability (5) market requirements for product quality level

Textile and garment export target market can underline six major subdivision departments, they are respectively: EU, America, Japan, Hong Kong, Asia (ASEAN, South Korea, The United Arab Emirates, India, Saudi Arabia and Bangladesh), CIS (Russia, Kyrgyzstan, Kazakhstan). Through using five weights to evaluate the above six subdivision respectively, the target market should be optimized. The above five weights belong to fuzzy index, only to describe qualitatively. Moreover, (1), (2), (4) are performance indicators, (3), (5) are cost indicators, quantitative methods are as follows:

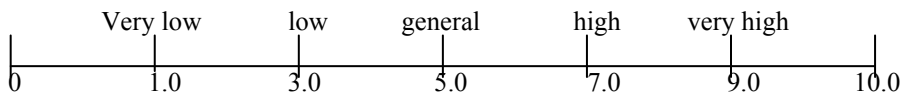


Fig.1. The quantization of fuzzy efficiency index

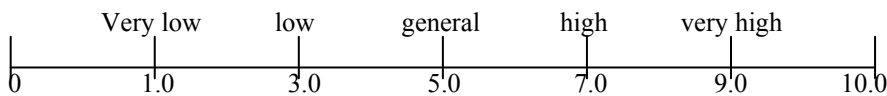
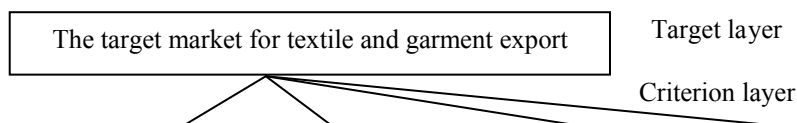


Fig.2. The quantization of fuzzy cost index

**3. To establish hierarchy**



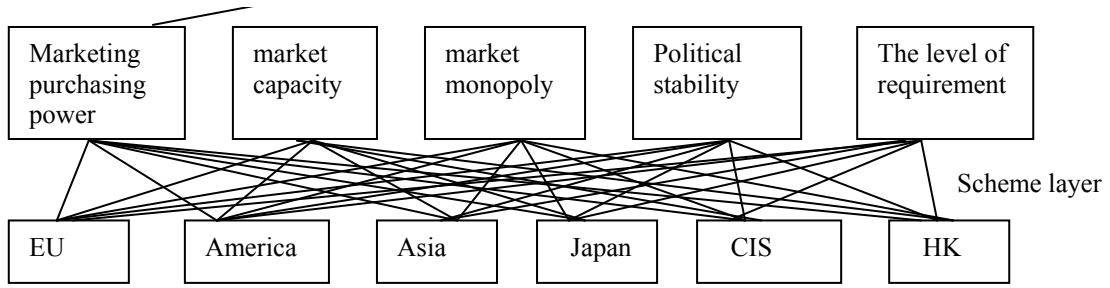


Fig.3.To establish hierarchy

**4. To build judgments matrix**

According to the expert opinion, six judgments matrixes are built.

Table1: Important sequence table of target layer

A	B1	B2	B3	B4	B5
B1	1	1/5	1/3	3	5
B2	5	1	2	8	10
B3	3	1/2	1	6	8
B4	1/3	1/8	1/6	1	2
B5	1/5	1/10	1/8	1/2	1

Table2: Important sequence table of marketing purchasing power in criterion layer

B1	C1	C2	C3	C4	C5	C6
C1	1	2	1/2	3	4	9
C2	1/2	1	1/4	2	3	7
C3	2	4	1	5	6	10
C4	1/3	1/2	1/5	1	2	6
C5	1/4	1/3	1/6	1/2	1	5
C6	1/9	1/7	1/10	1/6	1/5	1

Table3: Important sequence table of market capacity in criterion layer

B2	C11	C2	C3	C4	C5	C6
C1	1	2	7	4	8	10
C2	1/2	1	5	2	6	8
C3	1/7	1/5	1	1/3	2	3
C4	1/4	1/2	3	1	4	6

C5	1/8	1/6	1/2	1/4	1	2
C6	1/10	1/8	1/3	1/6	1/2	1

Table4: Important sequence table of market monopoly in criterion layer

B3	C1	C2	C3	C4	C5	C6
C1	1	6	8	1	2	1/2
C2	1/6	1	2	1/6	1/4	1/8
C3	1/8	1/2	1	1/8	1/6	1/10
C4	1	6	8	1	2	1/2
C5	1/2	4	6	1/2	1	1/4
C6	2	8	10	2	4	1

Table5: Important sequence table of political stability in criterion layer

B4	C1	C2	C3	C4	C5	C6
C1	1	1	1	2	2	7
C2	1	1	1	2	2	7
C3	1	1	1	2	2	7
C4	1/2	1/2	1/2	1	1	5
C5	1/2	1/2	1/2	1	1	5
C6	1/7	1/7	1/7	1/5	1/5	1

Table6: Important sequence table of the lever of requirements in criterion layer

B5	C1	C2	C3	C4	C5	C6
C1	1	4	4	1/2	1/2	1/4
C2	1/4	1	1	1/6	1/6	1/8
C3	1/4	1	1	1/6	1/6	1/8
C4	2	6	6	1	1	1/3
C5	2	6	6	1	1	1/3
C6	4	8	8	3	3	1

**5. Bierarchy ranking**

$$\begin{aligned}
 W^A &= (0.1281 \quad 0.4874 \quad 0.2971 \quad 0.0537 \quad 0.0337)^T \\
 W_{B1}^A &= (0.2435 \quad 0.1494 \quad 0.4207 \quad 0.0975 \quad 0.0659 \quad 0.0230)^T \\
 W_{B2}^A &= (0.4403 \quad 0.2651 \quad 0.0668 \quad 0.1546 \quad 0.0446 \quad 0.0287)^T \\
 W_{B3}^A &= (0.2158 \quad 0.0397 \quad 0.0260 \quad 0.2158 \quad 0.1229 \quad 0.3798)^T \\
 W_{B4}^A &= (0.2386 \quad 0.2386 \quad 0.2386 \quad 0.1269 \quad 0.1269 \quad 0.0305)^T \\
 W_{B5}^A &= (0.1143 \quad 0.0356 \quad 0.0356 \quad 0.1936 \quad 0.1936 \quad 0.4273)^T
 \end{aligned}$$

**6. Bierarchy general ranking**

Table7: hierarchy general ranking

Level B	B1	B2	B3	B4	B5	Total sort of level C
Level C	0.1281	0.4874	0.2971	0.0537	0.0337	
C1	0.2435	0.4403	0.2158	0.2386	0.1143	0.3266
C2	0.1494	0.2651	0.0397	0.2386	0.0356	0.1742
C3	0.4207	0.0668	0.0260	0.2386	0.0356	0.1082
C4	0.0975	0.1546	0.2158	0.1269	0.1936	0.1653
C5	0.0659	0.0446	0.1229	0.1269	0.1936	0.0800
C6	0.0230	0.0287	0.3798	0.0305	0.4273	0.1458

## 7. Uniformity inspection

To judge the uniformity inspection of matrixes, random uniformity ratio CR is used to evaluate uniformity.

$$\text{A matrix: } CR = \frac{CI}{RI} = \frac{\lambda_{\max} - n}{n - 1} \cdot \frac{1}{RI} = \frac{5.1062 - 5}{4} \cdot \frac{1}{1.12} = 0.02 < 0.1$$

$$\text{B matrix: } CR = \frac{CI}{RI} = \frac{\lambda_{\max} - n}{n - 1} \cdot \frac{1}{RI} = \frac{6.2237 - 6}{5} \cdot \frac{1}{1.24} = 0.04 < 0.1$$

Similarly, B2 matrix:  $CR = 0.02 < 0.1$ ; B3 matrix:  $CR = 0.01 < 0.1$ ;

B4 matrix:  $CR = 0.003 < 0.1$ ; B5 matrix:  $CR = 0.02 < 0.1$ .

So the results of hierarchy general ranking has satisfactory uniformity and EU is the target market of Chinese textile and garment export.

## 8. Summary

China's textile and garment export should consolidate the traditional four market and the meaning is that EU、America、Japan and HK is the main source in spot. In addition, the continued growth of the four markets have the important meaning to our country's export trade surplus and the balance of international payments. Among the four markets (HK takes charge of transit primarily), EU、America and Japan imports larger scale and has mature market and stable channel, as a result of which can consolidate our country's textile and garment's competitive position in the traditional market, and boost domestic employment and export trade growth.

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