

# **A Study on How to Promote the Business Environment Competitiveness of China's Household Appliance Export Enterprises —— Take the Example of "Haier"**

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**Abstract:** The competitive business environment can be regarded as advantages such as in environment protection, environment adaptation and environment compatibility from the business products' market access. It can be defined as the sum of commercial viability and sustainable development capacity, meanwhile it is a synthesis of composition and impact of the environmental factors in core competitiveness of products. As the world's fourth largest home appliance manufacturer, the advantages and disadvantages of Haier's competitive business environment can provide a certain degree of references for the related household appliances enterprises in China. This essay will firstly critically evaluate Haier's competitive business environment by using the criteria of product characteristics, production process, business management and product life cycle. Then it will propose a series of countermeasures for China's household appliances enterprises from the perspective of government, guild and enterprises.

**Keywords:** Environmental competitive power; Electrical household appliances; Haier; China

## **1. Introduction**

Frexell as a famous American managerialist put forward the original concept of competitiveness business environment. He suggests that the constant decreasing of natural resources together with heightened environment deterioration leading more twists and turns on the road to social-economic development. The contradictions between social-economic development and environment protection have become increasingly acute which results in a certain degree of puzzle choosing path of economic development. Furthermore, it increased the management of enterprises cost and finally reduce the profit space which fundamentally, weakened the competitiveness of enterprises. Subsequently, Frexell and his partner Vryza (2000) adopted new concept named "competitiveness business environment" instead of "eco-competitiveness strategy" in their findings. Their greatest contributions are firstly, putting forward the concept of

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competitiveness business environment and some relatively. Moreover, they use plenty of case study and empirical study to explain the importance of “competitiveness business environment” to enterprises. Nevertheless, there exist certain limitations to both Frexell and Vryza’s study in “competitiveness business environment”. Namely, they still defined “competitiveness business environment” as “green marketing strategy” which shows a certain degree of narrow positioning. Subsequently, Blomquist (2003) firstly set forth the logical relationship between “competitiveness business environment” and “core competitiveness of products” by using cost control theory and econometrics method. Nonetheless, the Blomquist’s study was criticized because he lumped these two concepts together to confuse matters (Blomquist, 2003).

Interiorly, Doctor Shi (2003) can be regarded as the first person who systematically stated the general relationship between competitiveness business environment and price/non-price competitiveness. However, Doctor Shi’s study not comprehensive enough and later, Xu Fang (2005) stressed that enterprise competitiveness must be under eco-strategy. Furthermore, by analyzing the eco characteristics such as non-symmetry, crowding effect and competitive exclusion, enterprises could gain a competitive edge through strategy K and strategy R.

It is clearly that the characteristics of competitiveness business environment can be concluded as following: firstly, experts’ concern to “competitiveness business environment” issue started relatively late, only about nearly ten years. Secondly, relative studies are not systemic and mature enough.

Actually, challenges have been encountered during the increasingly stringent requirements for imports by western developed nations. Haier as the world's fourth largest home appliance manufacturer, across green barriers successfully and therefore, should be studied carefully to provide a certain degree of references for the related household appliances enterprises in China.

## **2. Haier’s Competitive Business Environment Analysis**

The competitive business environment can be regarded as the sum of commercial viability and sustainable development capacity, meanwhile it is a synthesis of composition and impact of the environmental factors in core competitiveness of products (Zhao Jianfang, 2007). The implications inside could be the combination of value creation, innovation, social responsibility and harmony. The influence factors about competitive business environment are complex and can be conclude as four parts, namely, product characteristics, production process, business management and product life cycle.

Considering above four factors, this essay evaluates Haier’s competitive business environment through a series of specific items (see Table 1). There are four degrees as conclusion, namely, “excellent=90”, “good=80”, “general=60” and “worse=40”. Meanwhile, for the purpose of computing, finally, this essay counts results using weighting and reach a relatively objective evaluation.

**Table1 Haier's Competitive Business Environment Evaluation Index System**

| No. | Item                    | Weighted Ratio | Details                      | Weighted Ratio |
|-----|-------------------------|----------------|------------------------------|----------------|
| 1   | Product Characteristics | 0.3            | Raw Material                 | 0.3            |
|     |                         |                | Packaging                    | 0.2            |
|     |                         |                | Patent Technique             | 0.2            |
|     |                         |                | Performance                  | 0.3            |
| 2   | Production Process      | 0.15           | Manufacturing Process        | 0.6            |
|     |                         |                | "Three Wastes" Treatment     | 0.4            |
| 3   | Business Management     | 0.3            | ISO14001 Certification       | 0.4            |
|     |                         |                | Enterprise Management System | 0.3            |
|     |                         |                | Corporate Culture            | 0.3            |
| 4   | Product Life Cycle      | 0.25           | Design                       | 0.25           |
|     |                         |                | Manufacturing                | 0.25           |
|     |                         |                | Marketing                    | 0.25           |
|     |                         |                | Recycling                    | 0.25           |

### **2.1 Product Characteristics**

Since customers always choose products with better environment protection requirement, product characteristics can be regarded as the most important factor.

#### **2.1.1 Raw Material**

Recently, western developed countries increasingly focus on components inside products. Namely, the "Green Material" is emphasized by global trade. It can be exemplified that Haier follow close to the line of Restriction of Hazardous Substances Directive (ROHS) by European Union. From design proposal to suppliers, any component do not meet the environment protection requirement couldn't be adopted.

#### **2.1.2 Packaging**

The "Green Package" is an environmental friendly package. According to Gu Xiaoyan (1999), the green package should meet the environment protection requirement at whole product life cycle. Actually, Haier's products satisfy the ISO14001 certification strictly and use green package easily for recycling.

#### **2.1.3 Patent Technique**

It is clearly that more patent technique can promote an enterprise's competitive business environment. As illustrated by article, Haier's patent technique accumulatively reaches 7000 (including patent invention 1234) by November 2007. Meanwhile, Haier won the honor for "Best Supplier" and "Exemption Supplier". However, compared with well-known abroad enterprises, Haier still need strengthens.

#### **2.1.4 Performance**

The majority of Haier's products pass the European A++ Energy Efficiency Standard. By the end of November 2007, Haier's fridges reached latest China Energy Efficiency Rating. Compared

with other fridges, Haier fridges could save 182.5KWL one year which means 100RMB electric charge. Moreover, from the view from society, it means reducing nearly 181.9KG carbon dioxide pollution. Additionally, as one of the 2008 Beijing Olympic suppliers, Haier developed the concept of “Green Olympics” and pushed home appliance products updating and upgrading by its independent R&D.

**Table2 Haier’s Competitive Business Environment Evaluation Results – Product Characteristic**

| Item                    | Criteria                                | Haier’s Situation           | Conclusion | Mark |
|-------------------------|---|-----------------------------|------------|------|
| Product Characteristics | ROHS                                    | Strictly Followed           | Excellent  | 90   |
| Product Packaging       | Green Package                           | Strictly Followed           | Excellent  | 90   |
| Patent Technique        | Patent Invention                        | Reach 1234 Patent Invention | Good       | 80   |
| Performance             | European A++ Energy Efficiency Standard | Pass A++                    | Excellent  | 90   |

According to Table 1 and Table 2, the Haier’s competitive business environment –product characteristic can be computed as:

$$0.3 \times 90 + 0.2 \times 90 + 0.2 \times 80 + 0.3 \times 90 = 88$$

To sum up, Haier’s competitive business environment –product characteristic is “good”.

**2.2 Production Process**

A good production process means not polluting environment or polluting little which including the preparation of raw material and manufacturing supervision. Furthermore, the “Three Wastes” treatment and recycling process should also follow the relative requirement.

**2.2.1 Manufacturing Process**

Along with sharpening of contractions with resources, the strategy of sustainable development was introduced as humans’ long-term development strategy. Since the quality environment provides necessary resources to social-economic activities, the “Clean Production” method emerged as demand. “Clean Production” utilizes “prevention” measure to achieve least environment impact, least resources waste and best management. Haier promotes the “Clean Production” actively and strictly in line with China’s Clean Production Law. Nevertheless, since the highest standard of product process means completely pollution-free, Haier still need to upgrade.

**2.2.2 “Three Wastes” Treatment**

Recent years, there exists acceleratory growth of E-waste. China has already been one of the most important electronic products imported and exported countries. However, China also has largest E-waste. Haier as a large-scale international enterprise group enjoyed high reputation in the world and always working for the products' environmental performance. Actually, by the end of 2007, 34 leading products of Haier passed the Clean Production examination and reduced waste-water emissions 15,000 tons and carbon dioxide emissions nearly 300 tons. Nonetheless, experts suggest that more effective solutions can be made through technological innovation.

**Table3 Haier's Competitive Business Environment Evaluation Results –Production Process**

| Item                     | Criteria                                       | Haier's Situation   | Conclusion | Mark |
|--------------------------|--|---|------------|------|
| Manufacturing Process    | China Clean Production Law                     | In line with China Clean Production Law                               | Good       | 80   |
| “Three Wastes” Treatment | China Environment Protection Law & Regulations | Basically in line with China Environment Protection Law & Regulations | General    | 60   |

According to Table 1 and Table 3, the Haier's competitive business environment –production process can be computed as:

$$0.6 \times 80 + 0.4 \times 60 = 72$$

To sum up, Haier's competitive business environment –production process is “general”.

### 2.3 Business Management

Business Management as an important factor of competitive business environment requires enterprises owning environmental certification and establishing a series of sound scientific management systems which including approach determination, document system creation and training.

#### 2.3.1 ISO14001 Certification

Enterprises should establish a series of sound scientific management systems. Additionally, by accessing to third party certification, prove to outside world. Since ISO14001 Certification can benefit enterprises such as impressing customers, saving energy and increasing competitiveness, it is regarded as “Green Passport” to international market. Haier passed ISO14001 Certification in the early 1997 which helped Haier dealing with foreign green barrier effectively.

#### 2.3.2 Enterprise Management System

“Green Management” requires enterprises blend the idea of environment protection into business management and production activities. Haier has always been focused on the introduction of new equipments, new technology and new process which helped Haier creating its green brand.

#### 2.3.3 Corporate Culture

Corporate culture can be regarded as the sum of views and knowledge about the enterprise's growth formed in a long creating process by the combination of the enterprise and employees. Haier focuses on staff quality improvement and publicly release messages about ecological

design, resources recycling and the public good. Generally, Haier perfectly combine “public marketing” and “green marketing” and create green corporate culture successfully.

**Table 4 Haier’s Competitive Business Environment Evaluation Results –Business Management**

| Item                         | Criteria                     | Haier’s Situation                               | Conclusion | Mark |
|------------------------------|------------------------------|---|------------|------|
| ISO14001                     | ISO14001 Certification       | Passed ISO14001 Certification                   | Excellent  | 90   |
| Enterprise Management System | Scientific Management System | A series of sound scientific management systems | Excellent  | 90   |
| Corporate Culture            | Green Corporate Culture      | Good green corporate culture                    | Good       | 80   |

According to Table 1 and Table 4, the Haier’s competitive business environment –business management can be computed as:

$$0.4 \times 90 + 0.3 \times 90 + 0.3 \times 80 = 87$$

To sum up, Haier’s competitive business environment –product characteristic is “good”.

**2.4 Product Life Cycle**

A product called “strong” product life cycle means the product’s raw material is “green” and in line with China environment protection regulations and related international regulations.

**2.4.1 Design**

Despite considering the function, quality and development cycle and cost of a product, a variety of related factors should be optimized. Then, the product can comply with the requirement of environmental protection. Haier adopts a series of green design such as extending life of products and reducing environmental impact. Meanwhile, Haier has been a leading corporate of fluorine-free alternative products to contribute the environment.

**2.4.2 Manufacturing**

Actually, green manufacturing is required by circumstance. The goal of green manufacturing is highlight the utilization rate of resources and to coordinate economic benefit and social benefit. Haier controls the level of Lead, Mercury, Cadmium, PBDE, PBB in final products and packages strictly and enhances the environmental performance of products continually.

**2.4.3 Marketing**

Green Marketing means the demand of “Green Consume”. Enterprises can achieve their own profits by satisfying customers’ green consumer demand. Recently, the spirited competition pushes Haier developed a green strategy to green marketing and set up “green count” and “green shop” to promote Haier’s products.

**2.4.4 Recycling**

Recycling economy is a kind of eco economy. It can be regarded as the result of profound understanding of the relationship between human beings and nature. Today’s traditional economy should be changed into resource-conserving and environmental friendly economy. Actually, it is an inevitable choice. When Haier’s products meeting the end of life stage, these products can be recycled by process technique such as CRT utilization, metal and plastic separation. Additionally, Haier establishes the first national used appliances utilization model base and the first green education model base in February 2007. However, the recovery rate seems not excellent which is about 45% to 55% and need to be promoted.

**Table 5 Haier’s Competitive Business Environment Evaluation Results –Product Life Cycle**

| Item          | Criteria              | Haier’s Situation                 | Conclusion | Mark |
|---------------|-----------------------|-----------------------------------|------------|------|
| Design        | Green Design          | Adopt some green design           | Good       | 80   |
| Manufacturing | Green Manufacturing   | Adopt some green manufacturing    | Good       | 80   |
| Marketing     | Green Marketing       | Adopt a series of green marketing | Good       | 80   |
| Recycling     | Sound Recovery System | Relatively sound recovery system  | General    | 60   |

According to Table 1 and Table 5, the Haier’s competitive business environment –product life cycle can be computed as:

$$0.25 \times 80 + 0.25 \times 80 + 0.25 \times 80 + 0.25 \times 60 = 75$$

To sum up, Haier’s competitive business environment –product life cycle is “general”.

**3. Overall Appraisal of Haier’s Competitive Business Environment**

It is clearly that Haier attaches great importance of products’ competitive environment. It is the most valuable brand in China and won a number of honors of environmental protection. Therefore, from the view of products characteristic, Haier has relative strong competitive business environment. Furthermore, there is a great deal to be said in support of Haier’s competitive business environment factor of product process. On the other hand, Haier owns environmental certification and establishes a series of sound scientific management systems which means Haier also has a strong business management. However, the product life cycle part still needs progress.

According to above evaluations, the final evaluation is listed in Table 6.

**Table 6 Haier’s Competitive Business Environment Final Evaluation**

| No. | Item                   | Weighted Ratio | Conclusion | Mark |
|-----|------------------------|----------------|------------|------|
| 1   | Product Characteristic | 0.3            | Good       | 88   |
| 2   | Product Process        | 0.15           | General    | 72   |

|   |                     |      |         |    |
|---|---------------------|------|---------|----|
| 3 | Business Management | 0.3  | Good    | 87 |
| 4 | Product Life Cycle  | 0.25 | General | 75 |

According to Table 1 and Table 6, the Haier's competitive business environment final evaluation can be computed as:

$$0.3 \times 88 + 0.15 \times 72 + 0.3 \times 87 + 0.25 \times 75 = 82$$

To sum up, Haier's competitive business environment final evaluation is "good".

#### **4. Countermeasures to Promote Competitive Business Environment**

China's home appliances enterprises should draw lessons from the evaluation of Haier's example. By evaluating Haier's advantages and drawbacks, other home appliances enterprise should employ their own advantages to create new results. Meanwhile, it is important to know the underlying cause of disadvantages.

##### **4.1 The full-play of government policy guidance**

Government as enterprises guide should give full play of policy guidance. Government can try carrying out the "exports preferential policy" to some environmental home appliances enterprises. Moreover, government can grant environmental subsidies which help home appliances enterprises reducing unit cost. For example, the foundation of Green Incentive Fund and the preferentially fiscal and monetary policy can help these home appliances enterprises promoting competitive business environment effectively.

##### **4.2 Actively performing the functions of Guild**

Since China joined WTO, government-to-business management functions have been generally weakening while the role of guild has been increasing important.

Firstly, the regulatory function is important and should be performed strictly according to China's Environmental Protection Act by Guild of Home Appliances. In addition, more deeply communication with abroad environmental organizations is needed to improve China's home appliances exports' environmental standard. Moreover, enterprises cannot blindly raise environmental standard since the level of technology and environmental foundation at home should be considered carefully. Over period, China's home appliances enterprises could pass the transition period and join with international standard.

Secondly, the Guild of Home Appliances should carry out a series of research work about related regulations and acts based on existing scientific research institution. Then, related legislative branches can use this information as references to introduce legislation.

Finally, the Guild of Home Appliances should establish relative perfect public information system which can offer the latest marketing information about movement of home appliances products (material, procedure). Then, China's home appliances enterprises can follow the leading edge of technology closely.

##### **4.3 Enterprises are supposed to develop product with green package**

The "Green Package" is an environmental friendly package. Enterprises should the use green

package meeting the environment protection requirement at whole product life cycle and easily for recycling. Enterprises should accelerate the technical innovation and develop new packaging materials.

#### ***4.4 Enterprises are supposed to implement cleaner production***

On the one hand, “Clean Production” utilizes “prevention” measure to achieve least environment impact, least resources waste and best management. On the other hand, enterprises should study and implement the “green governance”. This thought can be concluded as “five principles”, namely, research, reduce, recycle, rediscover and reserve. Furthermore, enterprises should do some environment awareness and establish a corporate image of environmental protection .

#### ***4.5 Enterprises are supposed to improve comprehensive utilization efficiency***

Enterprises should try their best to improve comprehensive utilization efficiency. Actually, some waste-gas can also be potential resources. The rational use of these waste-gases could reduce production cost and increase economic benefit. China’s household appliances enterprises should minimize the production of waste and industry refuse. Meanwhile, improving the “three waste” utilization efficiency.

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