Study on Low-carbon Transition and Upgrading of Fujian Small and Medium-sized Processing Enterprises for Foreign Trades

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ABSTRACT

Opportunities and challenges encountered by Fujian small and medium-sized processing enterprises for foreign trades are analyzed in the event of low-carbon transition. Therefore, the paper focuses on the discussion of factors restraining low-carbon. In addition, it uses the experience in Japan and America with low-carbon transition as references, to raise corresponding feasible proposals and countermeasures for development.

KEYWORDS

Small and medium-sized processing enterprises for foreign trades, Low-carbon transition.

OPPORTUNITIES AND CHALLENGES ENCOUNTERED BY FUJIAN SMALL AND MEDIUM-SIZED PROCESSING ENTERPRISES FOR FOREIGN TRADES IN THE EVENT OF LOW-CARBON TRANSITION

Opportunities

FACILITATE THE SUSTAINABLE DEVELOPMENT OF THE ENTERPRISE

Fujian small and medium-sized processing enterprises are normally characterized by a small scale, therefore its cost and the resistance of implement in procedure is much lower than those of large companies. To achieve the company’s transition and upgrading by improving the technique during the traditional processing and enhancing the efficiency of processing and manufacturing chains may lead to the reduction of unnecessary resource waste and energy consumption during the processing, therefore lowering the environmental pollution. As a result, the company’s profit will be elevated greatly, and its competitive power will be strengthened.

ADAPT TO GLOBAL ECONOMIC DEVELOPMENT AND RESPOND TO GREEN TRADE BARRIER

In recent years, many countries have promised to accelerate energy conservation and emission reduction, causing multiple green barriers in the International community. In the context of a booming global low-carbon economy, Fujian small and medium-sized processing enterprises follow the path of low-
carbon transition to comply with the general orientation of global economic development and assist themselves to handle green trade barriers in various forms.

**Challenge**

**EXCESSIVE INVESTMENT IN LOW-CARBON TRANSITION**

On the one hand, there are multiple trade barriers to restrain carbon emission. On the other hand, resource integrated enterprises are facing numerous difficulties in the initial stage of transition. Normally, it would increase irrevocably manufacturing costs. In parallel, the company has to assure employees can adapt to the requirement of new equipment and new environment after transition and supervise them to be aware of environmental protection and low carbon. All of these may virtually increase the company’s input of human resource to burden those middle and small-sized processing enterprises.

**HIGHER OPPORTUNITY COST**

As a production operator, it is necessary to regard the reduction of greenhouse gas emission as his obligation and duty. However, in the company’s low-carbon transition, the individual producer pays the bill for other people. In a word, the opportunity cost of low-carbon transition is much higher than the cost of keeping the original production state. Even worse, that some companies acted as “free-riding” results into the bottleneck of low-carbon transition.

**CONSTRAINTS OF LOW-CARBON TRANSITION IN FUJIAN SMALL AND MEDIUM-SIZED ENTERPRISES FOR FOREIGN TRADES**

**Capital Deficiency of Small and Medium-sized Processing Enterprises for Foreign Trades**

There is universally shortage of funds in Fujian small and medium-sized processing enterprises. So, they do not perform actively in low-carbon transition. At the same time, restrained by production and operation philosophy called low investment and quick yields, they would rather regain the earlier investment in a short time, so as to maintain the capital turnover necessary for daily production and operation. Nevertheless, the purpose of establishing a low-carbon economy is eliminating the outdated capacity and strengthening the study and application related to low-carbon technologies, which should be supported by a large amount of capitals and technologies. As a flow of high investment is not rewarded, the enthusiasm of small and medium-sized enterprises is jeopardized. Despite that corresponding competent authorities have introduced several favorable polices about enterprise’s low-carbon transition in China, with an attempt to solve the problem of capital deficiency through policies such as to lower the standard of financing loan for small and medium-sized enterprises, the implementation is not developed. As a result, these policies become less effective.
TABLE 1. ENERGY CONSUMPTION ELASTIC COEFFICIENT AND ENERGY GROWTH RATE IN FUJIAN PROVINCE.

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<tbody>
<tr>
<td>Total Energy Consumption</td>
<td>9808.5</td>
<td>10652.6</td>
<td>11185.4</td>
<td>11943.8</td>
<td>12109.72</td>
<td>12179.97</td>
<td>12357.75</td>
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<td>(Per 104 tons Standard Coal)</td>
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<tr>
<td>Energy Consumption Growth%</td>
<td>10.00</td>
<td>8.61</td>
<td>5.00</td>
<td>6.78</td>
<td>8.22</td>
<td>0.58</td>
<td>1.46</td>
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<tr>
<td>Elastic Coefficient</td>
<td>0.72</td>
<td>0.70</td>
<td>0.44</td>
<td>0.62</td>
<td>0.83</td>
<td>0.06</td>
<td>0.17</td>
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**High Energy Consumption for Processing Trade**

Since 2010, the growth of energy consumption has been slowing in general in Fujian, however, with a larger fluctuation (see Table 1). Especially in 2015, the growth decreased to 0.58%. At the same time, elastic coefficient of energy consumption gradually fell, indicating that Fujian Province carried on a strict regulation over enterprises in terms of energy utilization rate and has achieved a limited effect.

Most of traditional problems are categorized into typical “high-energy-consuming and resource-dependent” enterprises. Therefore, we have to ponder how to help these enterprises with sustainable development. Responding to national political support and related regulations of “13th Five-Year” Plan, facilitating enterprise’s low-carbon transition better and faster, as well as reducing the corresponding energy consumption of processing trade will become one of breakthroughs for small and medium-sized processing enterprises for foreign trade to develop sustainably.

**A Greater Gap for Technologies and Staff**

Evidently, Fujian small and medium-sized processing enterprises for foreign trades are backward in terms of technology and staff. Compared with foreign perfect production systems, techniques of processing trade are outdated. They are nothing but a purely labor-intensive type. Moreover, production technologists commonly possess low qualities, shortage of a study of theoretical knowledge and accumulation of practical experience. Without many exchange opportunities of technical personnel, they are not willing to implement low-carbon transition.

**REFER TO EXPERIENCE OF LOW-CARBON TRANSITION OF OTHER COUNTRIES**

**Japan**

Japan is an island country with scarcity of resources, but takes the lead in developing low-carbon economy in Asian. The government encourages small and medium-sized enterprises to follow the way of technical innovation, low carbon and sustainable development and afterward legalize low-carbon transition. At the same time, the fiscal policy with high subsidy system is enforced to encourage enterprises and the society to volunteer energy saving and emission reduction, when it comes to taxation. In addition, a series of specific subsidy policies such as to supply one third to one half of total investment are favored by enterprise which actively introduce energy-saving equipment and implement energy-saving technical transformation.

**America**
The United States introduces a series of laws and regulations facilitating the operation of low-carbon economy, including Energy Policy Act, Low-carbon Economy Act and American Clean Energy and Security Act, as well as lists the development of clean energy, namely “Energy New Policy”, as the priority in the government planning to encourage American enterprises to value the balance between resources and environment, and promote them to keep high competitive forces in an International Market. Since Chicago Climate Exchange was operated, many enterprises have gotten involved and formed a market-driven carbon trading market. What is more, Regional Greenhouse Gas Initiative has been responded actively by various sectors of the society. In parallel, most American enterprises recognize related favorable polices regarding low carbon and emission reduction introduced by the government, which raises afterward the enthusiasm of the enterprise to carry on emission reduction and transition.

MEASURES AND SUGGESTIONS OF PROMOTING THE ENTERPRISE’S LOW-CARBON TRANSITION

The Government Promotes and Supports the Transition

The government always plays a dominant role in macroeconomic regulation and control, partially guiding the market economy in progress. Foreign countries such as Japan and America, which has developed these low-carbon transition technologies well, are all supported by governmental favorable policies and funds input. Therefore, Fujian small and medium-sized processing enterprises for foreign trades also need to be supported by encourage the support policies at the level of the government. Small and medium-sized enterprises can be less loaded through favorable policies such as to implement and perfect taxation while relevant assessment and incentive criteria are drafted to motivate enterprises which are active to carry on low-carbon emission. On the contrary, enterprises emitting extensive pollution should be combated more severely, and small and medium-sized processing enterprises for foreign trades should be guided to actively speed up low-carbon transition and upgrading.

Refer to Foreign Experience and Make up the Technical Gap

As the reform and opening-up reform proceeds further, enterprises of our province will have an increasing extensive relationship with other countries regarding economy and culture. Fujian small and medium-sized processing enterprises for foreign trades may regain much confidence if it is possible to reasonably introduce and take advantage of foreign sufficient funds and advanced technologies, therefore making up technical gaps. Government guidance is often the best catalyst. Technical cooperation and staff exchange with foreign economic entities are strengthened to provide employees from small and medium-sized processing enterprises for foreign trades with a platform of exchanging with foreign experts, to accumulate abundant practical experience. At the same time, they shall be encouraged to involve in the establishment of business center of economic cooperation and integration. All these cannot be achieved without the support of governmental policies, so referring to foreign technical experience will be another breakthrough of Fujian low-carbon transition.
Strengthen Business-to-Business Alliance and Highlight the Clustering Effect

Fujian enterprises for foreign trades are generally small and those which started earlier are mainly categorized into integration of industry and trade or processing with supplied samples. The space distribution is related centralized. They are rather developed in coastal cities such as Fuzhou, Quanzhou and Xiamen, but the clustering effect caused by the industry is not evident, so for Fujian small and medium-sized processing enterprises for foreign trades, it is feasible to strengthen business-to-business alliance for low-carbon transition.

For a single enterprise, high costs and technical gaps induced by low-carbon transition and upgrading will inevitably turn into the biggest obstacle of transition. Therefore, we can consider like this: Such an enterprise can achieve the maximum by using the minimum funds and risk if manufacturing and processing enterprise of same kind make an alliance, which means enterprises strengthen the strategic alliance with other peers to share technologies and high costs of low-carbon transition, to form some certain industrial clustering effect.

REFERENCES