

The Research on Supportive Policies of Electronic Information Industry Cluster Development in Long Nan County

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Abstract—This paper studies supportive policies of electronic information industry cluster development in Long Nan county by applying the method of literature research and charts, analyses the affect the supportive policies have on Long Nan electronic information industry cluster development . This paper argues that we need to further improve supportive policies of the electronic information industry cluster development in Long Nan county in the following three aspects: strengthening the formulation and enforcement of supportive policies; Governments and departments at all levels should actively participate in the formulation and implementation of supportive policy of the electronic information industry cluster; We should increase support policies on the fiscal taxation and innovation, if necessary, use legislation to support the development of Longnan electronic information industry cluster.

Keyword-supportive policies; electronic information industry cluster; Long Nan county

I. INTRODUCTION

At present, the electronic information industry has developed as a large consumer market and industrial cluster, and has been paid much attention to in the United States, Japan, Korea and other developed countries. During the "11th five-year plan" period, China's electronic information industry makes full use of the big opportunity of national economic and social development and international industrial transfer, and overcomes the disadvantageous factors such as the financial crisis and so on to realize its own steady growth, playing more and more important role in terms of economic and social development. In recent years, Longnan electronic information industry has played its "throat" location advantages as a central well inland to the coastal developed areas, actively seizes the opportunity of industry shift and extension in the Pearl river delta coastal open regions, complies with the construction of Hercynian economic zone, has achieved rapid development, and industrial cluster has taken shape. But it is still facing many other practical problems, such as a weak economic foundation, not perfect basic facilities, the lack of talent and so on. To ensure the effective development of Longnan electronic information industry cluster, the government introduced a series of supporting policies to plan as a whole, guide, supervise, in order to strengthen and expand the electronic information industry, promoting the economy in Longnan.

II. BASIC SITUATION OF LONG NAN ELECTRONIC INFORMATION INDUSTRY CLUSTER DEVELOPMENT

A. Scale of industrial cluster

Electronic information industry is a big industry in Long Nan county which develops rapidly in recent years. At present, the county has 16 electronic information enterprises, including 12 companies that has been put into production, 4 ones be in construction, accounting for 11% of the total development zone, and the gross value of industrial output reaches 1.107 billion yuan, accounting for 7% of all economic activity in the development zone; Main business income is 1.116 billion yuan, accounting for 7% of the total development zone. The tax is 50.74 million yuan, accounting for 8% of the total development zone; There are 3971 employees, accounting for 12% of the development zone for all workers. But there are only three enterprises with more than one hundred million yuan main business income. The number is relatively small, so is the scale.

B. The development situation of the industrial chain

Longnan ionic heavy rare earth reserves account for 70% of the world's total reserves, is the famous "township of the heavy rare earth". With the gradually increase of industrial transfer speed in the Pearl River Delta, basic projects and large projects of Longnan electronic information industry gradually increase, for example, Weiteng and Gold Crown; Especially Longnan rare earth processing projects, such as Guangdong Guangsheng and Jiang Xi Yi Luma company join to develop rare earth processing project, providing the resources for its industry development and laying a solid foundation. In recent years, Long Nan takes rare earth elements' development and utilization in rare earth permanent magnet materials, luminescent materials, rare earth alloy, and the hydrogen storage materials and other fields as the key of making "industrial Longnan" to grasp, providing industrial base for the development of the electronic information industry cluster. But in addition to rare-earth luminescence materials and applied enterprises, equipments in many other electronic processing enterprises are low-end, enterprises do not have a high level of automation; Brand construction does not reach the designated position, no their own registered trademark; Division of labour is not ideal, correlation degree is low, the most are in the closed operation. In general, the level of industry is low, the chain is short.

C. Supporting institutions

Longnan is 290 km distance from Guangzhou, 340 kilometers from Shenzhen, 4 traffic arteries run through the Long Nan county ,including Gan Yue expressway, Beijing-kowloon railway, Daqing-guangzhou highway and 105 national road, forming the fast road traffic network, is the "southern gate" in Jiangxi province. The improvement of the inspection and quarantine institutions and customs services and the opening of the " transport of railway and seaport "are greatly convenient for customs declaration and inspection declaration of Longnan enterprises' import and export goods. The infrastructure in Longnan economic and technological development zone is also gradually perfect. The establishment of electronic information park and the industrial base of Xinzhen rare earth provides agglomerating and bearing platform for the development of electronic information industry cluster. But compared with developed areas, infrastructure in Long Nan electronic information industry base remains to be perfect, multi-channel financing is needed to achieve the goal of development and construction.

Technically, the backbone enterprises in Long Nan electronic information industry have established a permanent relationship of technology development, exchanges and cooperation with enterprise technology innovation promotion center in Ganzhou city and Jiangxi University of Science and Technology and so on. But the ability of independent research and development is weak, enterprise management personnel and senior technical personnel are scarce. Long Nan is actively establishing a technical innovation system and operational mechanism which recognize the electronic information industry as the main body, and is increasing investment in technology, improving the level of technical equipment and the ability

of technical innovation, promoting the organic combination among capital, the talent, technology and production-manufacturing.

Long Nan county takes developing export-oriented type and taxes and profits non-state owned enterprise as the goal, uses means of investment promotion and capital introduction, closely combining with the national industrial policy, and is trying to form the industry with Long Nan characteristics and advantages, growing industrial economy, providing a good environment for development of Longnan electronic information industry cluster. With the deepening of strategy implementation for rising in the Hercynian economic zone and the middle part, especially the introduction of " development planning on ten top strategic emerging industries in Jiangxi province" and "" twelfth five-year "development plan about electronic information manufacturing industry " ,the development of Long Nan electronic information industry cluster will be faced with unprecedented opportunities, which once are seized will effectively promote a new round of rapid development of electronic information industry cluster in Long Nan county

III. SUPPORTIVE POLICIES ON LONG NAN ELECTRONIC INFORMATION INDUSTRY CLUSTER

The author collected the relevant supportive policies with the help of Internet, newspapers, magazines and so on issued by the government to promote the development of the electronic information industry cluster in Long Nan county. In this paper, supportive policies related to Long Nan electronic information industry cluster are classified, analyzed and researched, which are a total of 39. Now they are arranged in order of time and shown in table 1.

TABLE I STATISTICAL TABLE OF SUPPORTIVE POLICIES

Year	Month,Day	Title of supportive policies	Departments' level	Type of policies
2009	8.20	" Several Measures about Speeding Up to Join into the Economic Zone on the West Coast of the Taiwan Straits"	The prefectural level	Industrial policy
2009	11	"The Development Planning of Ten High and New Technology Industries Which Have the Advantage in Jiangxi Province "	The provincial level	Industrial policy
2009	12	"The White Paper of Compendium of Low Carbon Economic and Social Development in Jiangxi Province "	The provincial level	Innovative policy
2009	12	"The Development Planning of Ten Strategic Emerging Industries in Jiangxi Province "	the provincial level	Industrial policy
2009	12.16	" Instruction and Opinion on Accelerating the Development of National High-tech Industry Base Issued by the National Development and Reform Commission "	The central level	Industrial policy
2009Count	5			
2010	4	" The General Planning of Land Use in Long Nan County (2006-2020)"	The prefectural level	Socialized service policy
2010	6.19	"The Work Plan of the Growth Project of Small and Medium-sized Enterprises	The prefectural level	Fiscal and taxpolicy

		Implemented by Long Nan in 2010 "		
2010	7.21	"The Notice on Preferential Policies of Long Nan Encouraging Foreign Investment Print and Distributed by the People's Government in Long Nan "	The prefectural level	Fiscal and taxpolicy
2010	10.14	"The Work Opinion on the Finance Supporting the Economic Development of Longnan in 2010 "	The prefectural level	Financial policy
2010	10.14	"The Method of Incentives and Assessment of Banking Financial Institutions to Support the Development of Economy in Longnan County in 2010"	The prefectural level	Financial policy
2010	10.14	"The Implementation Plan of Cultivating Tutoring Done by Banking Financial Institutions to Qualifications of Enterprises' Loan in Long Nan County"	The prefectural level	Financial policy
2010Count	6			
2011	2.14	"The Twelfth Five-year Plan for National Economic and Social Development Program in Jiangxi Province"	The provincial level	Innovative policy
2011	3	"The Twelfth Five-year Plan for National Economic and Social Development Program of the People's Republic of China"	The central level	Innovative policy
2011	3	"The Guidance Catalogue of Industrial Structural Adjustment (2011)"	The central level	Industrial policy
2011	4	"The Twelfth Five-year Plan for National Economic and Social Development Program in Ganzhou City"	The civic level	Innovative policy
2011	4	"The Twelfth Five-year Plan for National Economic and Social Development Program in Long Nan County"	The prefectural level	Innovative policy
2011	5.1	"The Work Plan of the Growth Project of Small and Medium-sized Enterprises Implemented by Long Nan in 2010 "	The prefectural level	Fiscal and taxpolicy
2011	5.5	The Notification about Printing and Distributing "Preferential Measures of Long Nan County Encouraging Foreign Investments "	The prefectural level	Socialized service policy
2011	5.6	"Preferential Measures of Long Nan County Encouraging Foreign Investments "	The prefectural level	Fiscal and taxpolicy
2011	9.5	"The Notification about Earnestly Doing A Good Job of Great Project Development and Packaging Task Issued by the Ganzhou City Government to Our County"	The prefectural level	Fiscal and taxpolicy
2011	9.19	"The Opinions about Building Up Outstanding Industrial Clusters in Longnan County"	The prefectural level	Industrial policy
2011	11	"The Twelfth Five-year Development Plan of Key Industries in Ganzhou City (2011—2015) "	The civic level	Industrial policy
2011	11.2	"The Work Opinion on Financial Support for Economic Development of Longnan in 2011"	The prefectural level	Financial policy
2011	11.2	"The Implementation Plan of Cultivating Tutoring Done by Banking Financial Institutions to Qualifications of Enterprises' Loan in Long Nan County"	The prefectural level	Financial policy

2011	11.2	"The Method of Incentives and Assessment of Banking Financial Institutions to Support the Development of Economy in Longnan County in 2011"	The prefectural level	Financial policy
2011	11.28	"The 'Twelfth Five-year' Development Plan of the Internet"	The central level	Socialized service policy
2011	12.24	"The Master Plan about the City of Longnan County (2011-2030)"	The prefectural level	Socialized service policy
2011	12.30	"The Plan of Industrial Transformation and Upgrade (2011-2015) "	The central level	Industrial policy
2011Count	17			
2012	2	"The 'Twelfth Five-year' Development Plan of Electronic Information Manufacturing Industry"	The central level	Industrial policy
2012	2.17	"The Notice on Founding the Special Planning Work Leading Group of the Development of Industries Having Advantages in Long Nan County"	The prefectural level	Industrial policy
2012	3	"The Development Planning on Long Nan Electronic Information Industry in Jiangxi Province (2012-2016)"	The provincial level	Industrial policy
2012	3	"The Development Planning on Long Nan Electronic Information Industry in Jiangxi Province (2012-2016)"	The prefectural level	Industrial policy
2012	3.23	"The Notice on Printing and Distributing the Work Plan about Creating Provincial Ecological Industrial Park in Long Nan"	The prefectural level	Industrial policy
2012	4.11	"The Notice about Printing and Distributing the Opinion of Work's Implementation on Promoting the Four Engineering Constructions of Private Economy in Long Nan in 2012"	The prefectural level	Socialized service policy
2012	7	"Several Opinions about the Development of Soviet Area in Ganzhou' Several Opinions on Supporting the Revitalization and Development of the Original Central Soviet Area, such as Ganzhou, etc. Issued by the State Council!"	The central level	Socialized service policy
2012	9	Construction of the Second Central City in Ganzhou	The civic level	Socialized service policy
2012Count	8			
2013	1.7	" Notice on Founding the Leading Group of the Open Financial Cooperation Work in Long Nan"	The prefectural level	Financial policy
2013	1.17	" Notice about To Do A Good Job of Project Development and Reserve in 2013"	The prefectural level	Socialized service policy
2013Count	2			
2014	3.12	" Notice about the Arrangement of the County Government Work Report in 2014"	The prefectural level	Socialized service policy
2014Count	1			
Total count	39			

A. Statistical analysis of texts

The 39 selected supportive policies are now analyzed mainly from three aspects: first, the longitudinal study, they are classified in accordance with the time when the 39 documents are carried out. From the development of the

whole timeline, the degree changes of government's emphasis on Long Nan electronic information industry cluster are studied. Second, cross-sectional study, all 39 documents are sorted through and analyzed from the level of the departments formulating policies, mainly including which level of departments support the development of

Long Nan electronic information industry cluster. Third, from the content the policy documents focus on, they are classified and studied according to the financial policy, innovation policy, fiscal and taxation policy, the legislative support, socialized service policy and the industrial policy, by which the distributions of supporting degree governments give the development of Long Nan electronic information industry cluster are researched.

1) *Statistics according to time vertical axis order*

These 39 supportive policies texts are classified in accordance with the time when they are promulgated, we found that the time distribution is: 5 of them are in 2009, 6 ones are in 2010, 17 ones are in 2011, 8 of them are in 2012, 2 ones are in 2013, and only 1 is in 2014. According to these data, the time distribution diagram is made, as shown in figure 1.

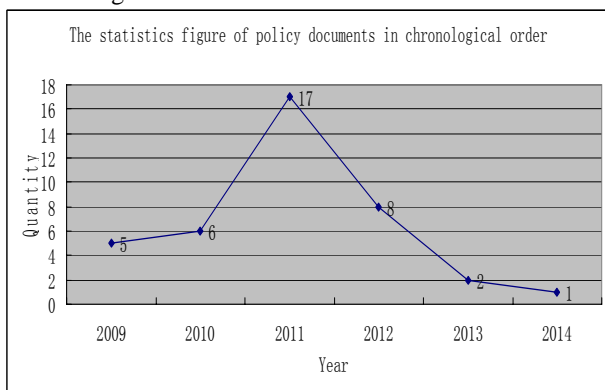


Figure 1. The statistics figure of policy documents in chronological order

We can see from figure 1 the number of supportive policies on Long Nan electronic information industry cluster is on a downward trend after rising first, which is the largest in 2011, is 17. Appearing this kind of circumstance, the author thinks it is because that since 2009 in response to the international financial crisis, the national big IT companies make strategic restructuring and reform, making the electronic information industry gradually recover. Also, our country strengthens the independent innovation, achieving the steady growth of electronic information industry. Electronic information industry in China develops well in 2011, the effect of industrial agglomeration is obvious. Longnan in such industrial atmosphere also constantly develops its own electronic information industry, the degree of government's attention is becoming more and more high, the relevant supportive policies are issued, promoting the development of electronic information industry cluster in Longnan county. Until 2011 in the good environment where national electronic information industry developed well, Longnan reached the culmination of supporting the development of electronic information industry cluster. Then, in the situation where Longnan electronic information industry cluster develops steadily, the strength of the government supporting it is gradually weakened, which needs to be paid attention to and is worthy of reflection.

2) *Statistics according to the department*

These 39 supportive policies documents are analyzed in accordance with the level of the units, whose distribution is: 7 ones are issued by the central government departments, 5 ones by the departments at the provincial level, 3 ones by the municipal units and 24 ones by the units at the county level. According to the data above, the distribution diagram of the level of departments which formulate supportive policies is made as shown in figure 2.

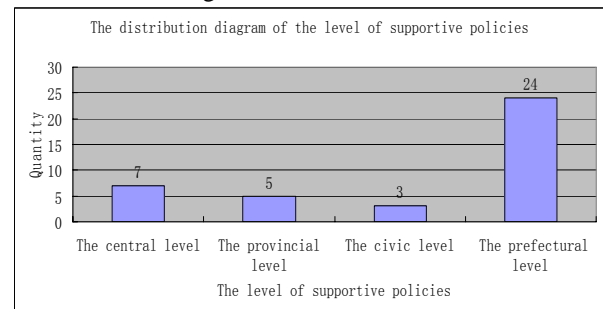


Figure 2. The distribution diagram of the level of supportive policies

From the analysis of figure 2, it is obvious that the number of supportive policies at the county level is the most and achieves 24, followed by 7 at the central level, again is 5 at the provincial level, the least is the municipal, only 3. Thus, departments at all levels are involved in the support of Long Nan electronic information industry cluster. As the highest department, the central established the "Instruction and Opinion on Accelerating the Development of National High-tech Industry Base Issued by the National Development and Reform Commission" and "the Guidance Catalogue of Industrial Structural Adjustment (2011)" and so on, in which it points out that governments should support the development of high-tech industries such as electronic information industry, realize the transformation and upgrade of these industries, then the province, city and county has also actively responded to the purpose of the central, successively promulgating a series of supportive policies to promote the development of Longnan electronic information industry cluster. The number of the supportive policies at the county level is large, comprehensively practicing to firm up the plans for the development of the country. The formulation and implementation of supportive policies at the provincial and municipal level need to be strengthened.

3) *Statistics according to the type of policies*

Supportive policies are divided into six aspects in accordance with the content of policies: the industrial policy, financial policy, fiscal and taxation policies, socialized service policy, innovative policy and the legislative support. [2] The author found when sorting out these 39 supportive policy documents that the contents of a portion of the files are with their overlapping, so such documents are classified according to their key contents, its distribution is roughly: 13 industrial policies, 7 financial policies, 5 fiscal and taxation policies, 9 socialized service policies, 5 innovation policies, 0 legislative support. All

kinds of files are analyzed according to their percentage of the total as shown in figure 3.

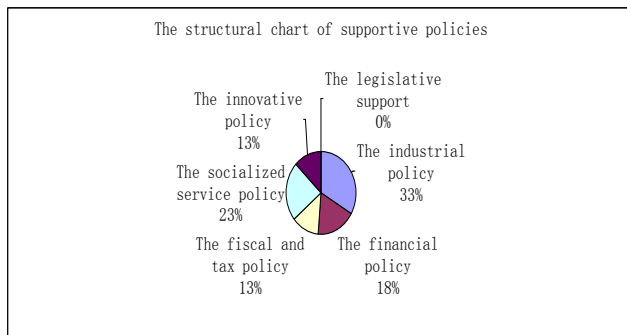


Figure 3. The structural chart of supportive policies

Seeing from figure 3 we can know visually that the supportive policies of Longnan electronic information industry cluster mainly concentrate in the industrial policy, the percentage reaches 33%. The adjustment of electronic information industry structure is the direction of future development. In recent years, structural contradictions of electronic information industry are increasingly prominent, and become an obstacle to the further development of electronic information industry,^[3] so we need to constantly optimize the industrial structure to keep the development of the electronic information industry cluster. Obviously, Longnan electronic information industry cluster is no exception. So the great part of supportive policies formulated by the government focus on the adjustment and upgrade of industrial structure. Then it is socialized service policy, accounting for 23%. Because information network and professional talent training play an important role in the development of electronic information industry, the socialized service policy also becomes the emphasis of the supportive policies. In addition, the financial policy accounts for 18%, no matter which stage the electronic information industry cluster develops at, it is inevitably associated with the capital. So it is necessary to formulate the relevant supportive policies to solve a series of problems the Longnan electronic information industry cluster faces, such as financing, credit, investment, guarantee and so on. Finally, the fiscal and taxation policies and innovation policies all account for 13%, the development of Longnan electronic information industry cluster is still not fully mature, does not tend to be perfect in every way. It needs preferential policies about government subsidies and tax and so on ,to attract foreign investments, increasing the funds for personnel training, etc. In addition, the electronic products renew fast, the sustainable development of the industry needs continuous innovation of the technology, product and so on to ensure. So, supportive policies on the fiscal and taxation and innovation are also essential. There is no proportion on legislative policies. In fact, if there are laws as a strong back, its effect is obvious for the development of all kinds of industries. So the supportive policies of Longnan electronic information industry cluster should break through in terms of legislations.

IV. RECOMMENDATIONS ON FURTHER PERFECTING THE SUPPORT POLICY OF THE DEVELOPMENT OF LONGNAN ELECTRONIC INFORMATION INDUSTRY CLUSTER

A. The enforcement of supportive policies should keep in a strong status

Since 2009, Longnan electronic information industry cluster with the support of supportive policies has developed better and better. According to "the development planning of Long Nan electronic information industry in Jiangxi (2012-2016)" formulated in March, 2012 by Long Nan government, by 2016, the industrial gross of Longnan electronic information industry increases to 10 billion yuan from 1.107 billion yuan in 2011, realizing profits of 1.5 billion yuan. The proportion of industrial gross of electronic information industry reaches about 15% from 7% in 2011, the industrial value of the electronic information industry accounts for the local GDP in Longnan county whose proportion increases 1.5% per year on average. For achieving this goal, and even making the Longnan electronic information industry cluster develop rapidly and continuously, relevant supportive policies should be enacted and implemented, can not be given less importance, even be interrupted.

B. Governments and departments at all levels should be actively involved in the formulation and implementation of supportive policies

The development of Longnan electronic information industry cluster needs governments and departments at all levels as the central, Jiangxi province, Ganzhou city and Long Nan county to participate, which support each other, step forward one by one and try hard together, rather than divide each other. So departments at all levels formulate supportive policies to promote the development of Longnan electronic information industry cluster and the future must be bright.

C. Legislations support the development of Longnan electronic information industry cluster

On the basis of the implementation of relevant supportive policies on promoting the development of Longnan electronic information industry cluster issued by departments at all levels, the research and formulation of supportive policies on land, tax, finance, technology and product innovation should be further strengthened. Set up the fund for the development of electronic information industry, supporting the construction of the electronic information industry park, talent introduction, technology research and development, and major projects' introduction, etc. Under the premise of following national and provincial land use policies, give priority to arranging and providing land for key projects. Reduce and exempt appropriately building and land use tax for key enterprises and make a good use of the current preferential tax policies. When necessary, formulate relevant laws to support and guarantee the implementation of the various supportive policies, implementing the steady development of Longnan electronic information industry cluster.

V. CONCLUSIONS

In this paper, the author use literature analysis method and chart method to research and analyze supportive policies on electronic information industry cluster in Long Nan county, and draw the following conclusions:

Electronic information industry is one of pillar industries in our country, and its clustering development is inevitable. ^[4] By analyzing the basic situation of the development of Long Nan electronic information industry cluster, this paper argues that the main threat for the development of Long Nan electronic information industry cluster is the weak economic foundation, imperfect infrastructure and lack of talents and so on. Considering the development of Long Nan electronic information industry, this paper puts forward recommendations on the improvement of supportive policies of Long Nan electronic information industry cluster from the three aspects: the efforts of policy formulation and implementation, departments' participation at all levels in formulation and implementation of supportive policy and the emphasis of the policies' content, hoping to provide a reference and help for improving the level of regional economy and the development of regional industry cluster.

Electronic information industry is a strategic emerging industry, has a broad development prospects. How to combine the actual situation of the development in Long Nan to formulate supportive policies suitable for the development of Long Nan industrial cluster, making the electronic information industry cluster be a major force in economic growth in Long Nan county, is always a problem concerned by relevant governments and department in Long

Nan. Supportive policies about the electronic information industry cluster in this paper are studied, and measures are put forward to perfect the corresponding supportive policies, which are combined with the situation of the development of the electronic information industry cluster in Longnan, hoping to play a reference role for the continuous improvement of the supportive policies on Long Nan electronic information industry cluster's development, to contribute to the development of electronic information industry clusters in Long Nan county.

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REFERENCES

- [1] The compiling and working group of development planning of Longnan electronic information industry.2012.3,The development planning of Long Nan electronic information industry in Jiangxi Province(2012-2016) [Z], Net of Long Nan people's government.
- [2] Fang Ke. 2013.6.1, The research on policy evolution of small and medium-sized enterprises in our country during the transition period [D], master's degree thesis in Jiangxi Normal University.
- [3] Zujiang Yu. 2009.11.18, Removing the disadvantages of the structure of the information industry which is unreasonable [N], The communication information newspaper.
- [4] Songyan Qu. 2013.5.16, The analysis on development policy of electronic information industry cluster in Jinzhou new district, Dalian [D], Dalian University of Technology.