SWOT Analysis of the Development of Guizhou Big Data Financial Industry

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Abstract. With the increasing advancement of science and technology, big data technology has become the new "oil" in the Internet era. Alvin Toeffler called it "the festivities in the third wave". As a new type of strategic resource, big data technology has been continuously innovated and developed by countries all over the world, and the most important part is the integration with the financial industry. This article uses the SWOT analysis method to analyze the advantages and disadvantages of the development of big data finance in Guizhou Province from both internal and external aspects, and puts forward relevant suggestions and measures for the development of big data finance in Guizhou Province, so that Guizhou Province can better use big data technology as a fulcrum. Economic transformation has stimulated the economic development of Guizhou Province.

1. Introduction

As a new type of strategic resource, big data will undoubtedly become an inexhaustible driving force for economic transformation and development for a country or region. Guizhou Province is a backward area in terms of economic development, and has been seeking economic breakthroughs and transformation. In 2014, it seized the opportunity of developing the big data industry. As the country's first comprehensive pilot zone for big data, Guizhou Province is in a transitional period from an industrial economy to a digital economy. The Guizhou Provincial Government has made a strategic plan to deeply integrate big data with the real economy, so the big data financial industry has been nurtured. This paper analyzes the advantages and disadvantages of the development of the big data financial industry in Guizhou, as well as the opportunities and challenges it faces, and proposes appropriate development measures and suggestions. At the same time, it deeply explores the supporting role of the development of Guizhou's big data financial industry for the breakthrough and transformation of the real economy.

2. SWOT Analysis of the Development of Big Data Financial Industry in Guizhou Province

Since the establishment of my country's first big data exchange in Guiyang, Guizhou in 2014, Guizhou Province has been closely connected with China's "big data". The collision of big data technology and the real economy has allowed Guizhou’s regional GDP to maintain double-digit growth in the past five years, with an average annual growth rate of over 12%, nearly 5% higher than the national level "Guizhou Metropolis Daily".
2.1. Advantages and Constraints Given by the Internal Environment

2.1.1. Advantages Given by the Internal Environment (s)

(1) Natural conditions

Guizhou has natural advantages in developing big data industry in terms of natural conditions. First, the geographical location has outstanding advantages and the geological structure is solid. Guizhou Province has a unique karst landform. The second is suitable climatic conditions. Guiyang, the capital of Guizhou Province, has a humid subtropical monsoon climate. The unique climatic conditions make Guizhou Province deserve to be called the "Chinese Computer Room". Third, Guizhou Province has sufficient hydropower and coal resources. Guizhou Province is the main force in the country’s “West-to-East Power Transmission”. It has the sixth largest hydropower resources, the fifth largest coal reserves, and the second largest coal-bed methane resources. The big data industry is based on electricity. Guizhou Province has sufficient energy resources. Whether it is hydropower or thermal power generation, it has energy and cost advantages. This is also a highlight of attracting the big data industry to settle in Guizhou.

(2) Policy support

Guizhou Province has a number of national-level strategic tilts and provincial-level policy support for the development of the big data industry. The Guizhou Provincial Government issued the Guiding Opinions on Financial Support for the Development of Big Data Industry in Guizhou Province in 2017. The "Opinions" proposed 18 policy measures from six aspects to provide policy support and promote Guizhou big data finance to become the most representative business card of Guizhou Province. In addition, it is proposed to "introduce gold into Guizhou", "one body, two cores, and four supporting facilities". As far as the current construction is concerned, it generally presents a new pattern of developing big data finance and internet finance based on traditional financial institutions.

2.1.2. Constraints of the Internal Environment (w)

(1) The level of economic development is still low

In recent years, the economy of Guizhou Province has developed rapidly, but in 2018, the economic growth rate of Guizhou Province is among the best in the country. The GDP of Guizhou Province is still in a backward state, and there is still a certain gap compared with other cities that mainly develop big data in China. The capital base of the financial industry in Guizhou Province is relatively weak, and there is no strong capital base. The risk of the financial industry trying to integrate with big data to achieve financial innovation is relatively large\(^{[2]}\). Therefore, under the condition that the economic strength cannot reach the development of big data technology, financial institutions Or choose to continue to develop traditional financial products, which is another condition that restricts the development of the big data financial industry in Guizhou Province.
Table 1. Comparison of the economic levels of major domestic big data development regions in 2018.

<table>
<thead>
<tr>
<th></th>
<th>Guizhou</th>
<th>Chongqing</th>
<th>Shanghai</th>
<th>Guangdong</th>
<th>Nationwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Regional Product (100 million yuan)</td>
<td>14806.45</td>
<td>20363.19</td>
<td>32679.87</td>
<td>97277.77</td>
<td>919281.1</td>
</tr>
<tr>
<td>Added value of financial industry (100 million yuan)</td>
<td>866.6</td>
<td>1942.33</td>
<td>5781.63</td>
<td>7296.98</td>
<td>70610.3</td>
</tr>
</tbody>
</table>

(2) The level of technological innovation is low, and there is a shortage of professionals

The lack of science and technology and professional talents restricts the pace of development of the big data financial industry in Guizhou Province. Guizhou Province has a small number of ordinary colleges and universities, and few specialize in the field of information and big data finance, and lack a certain supply of professional talents.

2.2. Analysis of the External Environment of the Development of Big Data Financial Industry in Guizhou Province

2.2.1. Opportunities Given by the External Environment (o)

(1) The convening of the data expo introduces a large number of enterprises to settle in Guizhou

In May 2019, the "Digital Expo" marked its fifth full stop in Guiyang. A total of 125 projects have been successfully signed in the province, with a contract amount of 100.7 billion yuan. Guizhou Province uses the advantages of big data resources to actively carry out data search, data introduction, and data assistance. As more eyes focus on the Expo, Guizhou Province is bound to become an important indicator of China's big data.

(2) Cooperation with other countries with advanced technology

In 2014, Guizhou signed a contract with India to provide technical support for the big data industry technology in Guizhou Province. In 2017, the Cloud Guizhou Big Data Collaborative Innovation Center was listed for operation in Bangalore, India. This shows that the first is to carry out core technology and mathematical model research around big data technology, and the second is to integrate with the digital economy to provide intellectual resources and technical support for Guizhou Province. At the same time, the information elites in Guizhou Province will also go to India for further study. Fourth, they will introduce better IT solutions from India and deploy them on the Guizhou (domestic) platform on the cloud.

2.2.2. Challenges Faced by the External Environment (t)

(1) Massive data but poor quality

In the existing financial transactions, big data technology has created huge benefits for financial institutions, but in the long-term expectation, further improvement is still needed. The reason is that the amount of data is large but not of high quality. The accuracy and effectiveness of the data will
make Errors in decision-making by financial institutions have led to increased risks for financial institutions. There are two main reasons: First, financial institutions lack the ability to master the operation of the platform required for data cloud computing, which results in the inability to properly handle the data. Second, the exclusivity of cooperation makes data islands still exist, and financial institutions still cannot obtain enough data dimensions. In addition, most of the data input to financial institutions by third-party platforms does not come from real service scenarios, so there will be blind spots in financial institutions’ understanding of customers, and the effectiveness and accuracy of services cannot be guaranteed.

(2) The integration of big data technology and financial industry is not yet mature

The application of my country's big data technology in the financial industry is still in its infancy. The solution of existing problems and the exploration and trial and error of unknown fields require a lot of manpower and financial resources. This has greatly affected the enthusiasm of some financial companies for innovation. Second, in the circulation of data, there will be more or less random sharing of data, which will increase the risks faced by financial companies and make it difficult for financial companies with relatively weak capital to transform\(^1\). Finally, there is a deviation between the existing data model and the actual application, and the wrong node needs to be manually reviewed, which leads to the phenomenon that the cost of the financial enterprise will not decrease but increase.


In summary, we can get a SWOT analysis matrix, as shown in Table 2.

<table>
<thead>
<tr>
<th>Internal factors</th>
<th>Strength</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>external factors</td>
<td>1. Outstanding location conditions</td>
<td>1. The level of economic development is still low</td>
</tr>
<tr>
<td></td>
<td>2. Suitable climatic conditions</td>
<td>2. Lack of professional talents</td>
</tr>
<tr>
<td></td>
<td>3. Rich in energy</td>
<td></td>
</tr>
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<td></td>
<td>4. Policy support</td>
<td></td>
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<table>
<thead>
<tr>
<th>Opportunity</th>
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<tbody>
<tr>
<td>1. The convening of the Digital Expo has introduced a large number of Internet companies to settle in Guizhou</td>
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<tr>
<td>2. Cooperate with other countries with advanced technology</td>
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<table>
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<tr>
<th>Threat</th>
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<tbody>
<tr>
<td>1. Poor data quality</td>
</tr>
<tr>
<td>2. The integration of big data technology and the financial industry is not yet mature</td>
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</table>
3.1. Supported by National Policies, Give Full Play to Their Own Advantages

The Guizhou Provincial Government should rely on various national policies for the development of the big data industry, speed up the development of the province’s big data industry "tailor-made", give those enterprises that actively integrate into the development of big data policy preferential conditions, encourage enterprises to innovate and develop, and at the same time The development of the big data financial industry in the province has a sound and stable operating environment.

First of all, with the support of national policies, the first is that relevant companies should carry out data development, data analysis, and market application within the scope of the standards that the government has issued; the second is that the Guizhou provincial government should meet the needs of the development of the big data financial industry and open all departments in real time. Data; third, relevant government departments should establish a new judgment system for financial institutions to develop new products launched by big data finance; fourth, build a data exchange platform in a timely manner[5]. Secondly, give play to its own advantages, including both natural conditions and existing material foundations. On the one hand, the Guizhou Provincial Government should maintain the existing ecological environment; on the other hand, through the big data exchanges and enterprises outside the province to increase stickiness, using Guizhou Financial City as a platform to attract and settle big data financial institutions. Starting from the above two aspects, the basic conditions for the big data financial market are basically stable.

3.2. Continuously Upgrade Industrial Technology, Cultivate and Introduce Talents

To better develop the big data financial industry in Guizhou Province, it is inevitable to achieve industrial technology clearance. The technological level of Guizhou Province is somewhat difficult to support the independent innovation and upgrading of industries in the province. Now it is time to grasp the opportunity to cooperate with the IT power India and learn new things. To advance technology and "adapt measures to local conditions" in response to the problems of local big data companies, to achieve continuous optimization and upgrading of the industry and strive for breakthroughs. In addition to learning experience from excellent technological countries, it is more important to independently train local professionals. It is necessary to realize the combination of theory and practice, so that students can get close to the "true face" of big data technology, so that the big data financial industry in Guizhou Province can develop faster and better. At the same time, we should also attract elites from outside the province to settle in with the help of the digital expo and the Guizhou Financial City. The inside should be combined with the outside to jointly expand human resources. Realize the rapid development of the big data financial market in Guizhou Province in terms of industrial optimization and talent training.

3.3. Promulgate Laws or Regulations to Reduce Financial Risks

The development of the big data financial industry has brought financial institutions accurate portraits of customers from massive amounts of information, mastering customer transaction habits, and accurately predicting customer behaviors, which reduces the risks and hiddenness of financial institutions due to information asymmetry. Cost; on the other hand, data sharing greatly facilitates the office quality and efficiency of enterprises and governments, but both are based on sufficient laws and regulations to guarantee the transaction process. The national government and the Guizhou provincial government should issue laws and supporting opinion documents as soon as possible to clarify the privacy part of the data; clearly specify the scope of data sharing and the responsibilities of the parties to the transaction during the transaction.
References


