

**LETTER TO THE EDITOR****Modeling and Analysis of Financial Management on Environmental Damage in Falling Area**

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The waste produced by financial management in backward areas has a significant impact on the environment. A comparative analysis model of financial management and environmental pollution in backward areas based on the dynamic adjustment of capital structure is put forward. The constraint parameter model of financial management and waste discharge in backward areas is constructed by using sub-sample adjustment method, and the emission standards are divided into three groups: high, medium and low, so as to realize the quantitative analysis of environmental pollution caused by waste produced by financial management in backward areas. The empirical study shows that the pollution caused by the waste in the financial management in the backward area has a level confidence of 95%, through the optimization of the target capital results, the optimization of the financial management and the reduction of the impact of the waste discharge on the environment.

Financial management; Backward area; Environment disruption; Modeling

**1 Introduction**

Local finance is mainly the management of the process of providing goods or services from local enterprises in terms of value. The reasonable control of its management environment can play a better role in the mitigation of the degree of environmental damage. With the rapid development of economy in the world, a large amount of natural resources are consumed, a large amount of waste is discharged, environmental pollution is very serious, and the ecosystem has been seriously damaged, which urges people to pay more and more attention to environmental problems. The “low-carbon economy” model also produces (Lv and Zhang 2018). Low-carbon economy refers to an economic model based on low energy consumption, low emissions and low pollution. It is a new change in the mode of economic development, the way of energy consumption and the way of human life. Its essence is to improve energy efficiency and create clean energy structure, the pursuit of green GDP, its core is technological innovation, institutional innovation and the transformation of the concept of development. When the use of resources is not restricted by the constraint mechanism, the main research direction of traditional financial management is financing, investment, operation, distribution and other activities in order to maximize the benefits of enterprises, with little or no consideration of carbon emissions. Energy consumption and other environmental protection issues. Under the condition of low carbon economy, enterprises will change the old business concept, thus affecting the financial management activities of enterprises. The starting point of the enterprise's financial activities is to maximize the benefit of the enterprise under the condition of maintaining and improving the environment of the ecological resources, so that the enterprise and the society can be coordinated

and developed. Therefore, the reform of financial management in low-carbon environment is the inevitable trend of the development of the future enterprises (Zhang 2018).

Yuqing Shen, Can Chen, Jianqiang Gu published an article in 2019 in the journal Ekoloji, Issue 107, entitled "Research on the Design of Supply Chain Financial Ecology Model and Risk Management." With the development of social division of labor, the social product chain becomes more complex. Supply chain finance is produced under such a social background and is an innovative financial model. The application of supply chain finance in the current market is becoming more and more common and will become more and more mature. In this paper, the ecological model, risk and risk control measures are introduced.(Sharma et al., 2017) In order to help the development and research of related societies, supply chain finance is studied. On the basis of this analysis, combined with the environmental damage in backward areas, the relationship between financial management and it is analyzed.

At present, there is little research on the role of financial management in environmental damage in backward areas. Therefore, starting from the essence of financial management, this paper constructs the control equation of environmental damage in backward areas under financial management, combined with low-carbon economy. The environmental damage is analyzed. The low-carbon economy is a new model of economic development in the country to save energy, reduce emission and protect the ecological environment. The coming of the era of low-carbon economy has brought great changes to the work of financial management. We should actively adapt to the new situation, innovate the links of financial management and realize the maximization of the value of the enterprise.

## 2 Idea Description

### 2.1 The Essence of Financial Management

From the theory of monetary income and expenditure, the theory of monetary relation and the theory of contract, the essence of financial management is the capital movement and its formation. It has the following disadvantages: First, the development of the enterprise is the process of the continuous development, accumulation, integration and application of the financial resources. It is that all the resources of the enterprise form the core competitiveness of the enterprise, so the financial essence is thought to be the allocation and utilization of the resources. And these are the words that are set forth in nature, and the author thinks that more or less makes people think deeply. Secondly, the essence of financial management is studied from the angle of resources, and it can be combined with the sustainable view in a more intuitive way, so that the concept of sustainable development is more easily accepted by people. Finally, from the macro point of view, the enterprise is only a cell of the society, the development of the enterprise is restricted by the influence of the social environment, and the resources in the society are scarce. If you ignore this key to resources and talk about profits is undoubtedly a cake to satisfy hunger (Pi and Zhao 2017).

### 2.2 Low-carbon cost control in the production and operation process of the enterprise in the backward area

It is necessary to control the cost of the whole system from the aspects of product production, design, marketing and so on. If enterprises want to save energy and reduce emissions and control carbon emissions, they must transform the production process, add energy-saving equipment, install testing equipment to detect, and detect whether the emissions can meet the standard in real time. At the same time, from raw material procurement, after-sales service, product recycling and other links, the use of high-tech energy conservation and emission reduction (Qu 2017).

### 2.3 Mathematical model

The constraint parameter model of financial management and waste discharge in backward areas is constructed by subsample adjustment method. The emission standards are divided into three groups: high, medium and low, and the constrained variable regression analysis methods used (Yan 2017). The controlling equation of financial management in backward areas is described as follows:

$$x(n) + \sum_{k=1}^p a_k x(n-k) = \sum_{r=0}^m b_r u(n-r) \tag{1}$$

Adjust the related index parameters of the impact of environmental pollution in the financial management of backward areas, and use the effective data set adjustment method for dynamic distribution to obtain the state function of environmental pollution control:

$$F_i = (f_1, f_2, \dots, f_m) \tag{2}$$

The constraint indicator set is:

$$X_j = (x_1, x_2, \dots, x_n) \tag{3}$$

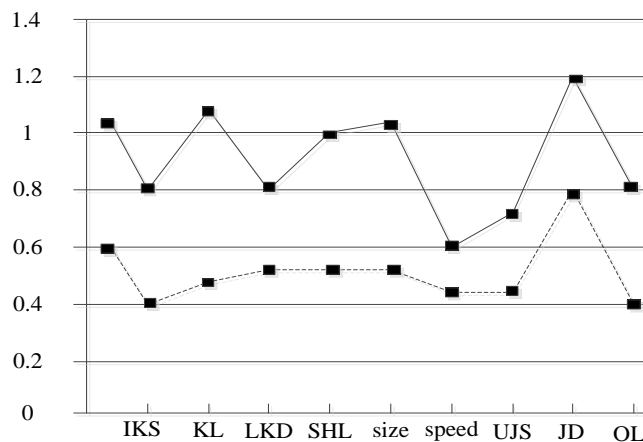
In summary, the mathematical modeling of environmental pollution caused by waste from financial management in backward areas is completed, on the basis of which empirical analysis and descriptive statistical test analysis is carried out. (Shi et al. 2017).

### 3 Results

In order to realize the quantitative analysis of financial management and environmental pollution in backward areas, the measurement relationship model of financial management is analyzed by taking the data collection results of financial management in a large third A backward area as the research object.

#### 3.1 Statistical results of least square regression analysis

The descriptive statistical method is used to analyze the prediction model of financial management in backward areas, and the maximum likelihood estimation method is used to analyze the controlled constrained variables of emission to environmental pollution. The autocorrelation between the contribution weight of environmental pollution control and the regression coefficient of the model is shown in figure 1.



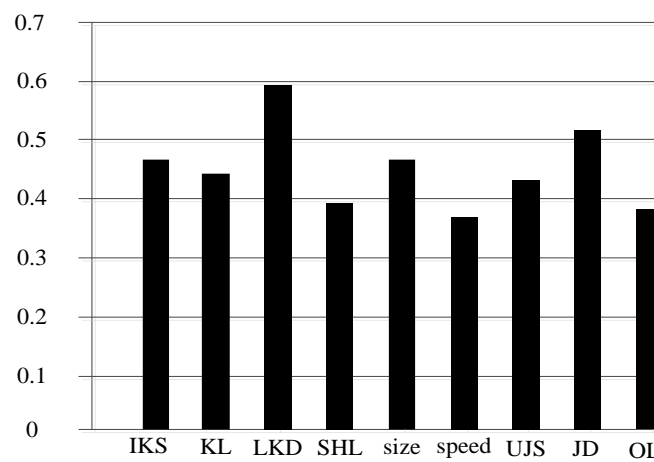
**Figure 1 autocorrelation between contribution weight of environmental pollution control and regression coefficient of model**

The analysis figure 1 shows that the method is adopted to carry out financial management in the backward area,

and the waste generated in the backward area has good control efficiency, and the environmental pollution is effectively controlled through fuzzy matching and game decomposition, so that the discharge amount of the living waste is reduced.

### 3.2 Correlation test analysis

Combined with the results of regression analysis, the environmental pollution prediction is carried out, and the moving average test method is used to test the conservatism of financial management in backward areas, so as to realize the quantitative analysis of environmental pollution caused by waste produced by financial management in backward areas. The contribution weight distribution of environmental pollution control with different standard errors is further tested, and the results are shown in figure 2.



**Figure 2 contribution weight of environmental pollution control with different standard errors**

The analysis shows that the optimization of financial management in the backward area has a good contribution weight to the environmental pollution control, the average confidence reaches 95%, and the capital structure optimization and reorganization of the financial system in the backward area are effectively realized.

## 4 Discussion

Therefore, it is necessary to fully grasp the needs of the modern economic market, take effective measures to resist the large-area spread of the risk, adjust and innovate the financial management of the enterprise, so as to obtain a larger market share. In a word, we must keep up with the development of low-carbon economy and integrate low-carbon concept and financial management organically.

Under the background of low-carbon economy, only by establishing the concept of low-carbon financial management can enterprises in backward areas implement the financial objectives of low-carbon economy. First, the enterprise should develop the scientific low-carbon concept of the financial manager and the financial personnel, actively create the low-carbon enterprise culture, ensure that all financial workers have rich financial management consciousness, It is clear that the protection of the environment and the effective use of all kinds of resources plays an important role in the sustainable development of the enterprise, so that the benefits of long-term development of the enterprise should be taken into account in the decision-making activities. Secondly, enterprises should cultivate the low-carbon risk concept and low-carbon financial budget concept of financial managers, strengthen their comprehensive literacy, master low-carbon financial management knowledge and related skills, and track the low-carbon development trend of enterprises in real time.

## 5 Conclusion

In that financial management of the backward area, the distribution system of the domestic waste generated in the backward area is not clear enough, the risk of environmental pollution is large, and the pollution of the waste generated by the financial management of the backward area is quantitatively analyzed. The structure of intelligent financial management mode in backward areas is established and the optimization of financial management is realized. A comparative analysis model of financial management and environmental pollution in backward areas based on dynamic adjustment of capital structure is put forward. The least square method is used to analyze the capital regression of financial management in backward areas, and the results of regression analysis are combined with the prediction of environmental pollution, so as to realize the quantitative analysis of environmental pollution caused by waste from financial management in backward areas. The research and analysis have learned that by optimizing the financial management in the backward area, the pollution caused by the waste generated in the falling area is reduced to the minimum, the reorganization is optimized through the target capital result, the financial management optimization is carried out, the influence of the waste discharge on the environment is reduced, and the feasibility of environmental protection is improved.

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