

# Research on Financial Risk Prevention Mechanism of Artificial Intelligence Basic Education System

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**Abstract:** *As an emerging technology, artificial intelligence plays an important role in improving the quality and efficiency of financial work, reducing operating costs, and preventing financial risks. This paper analyzes the financial risk performance, harm and causes of basic education system under the background of internet, points out the necessity of artificial intelligence in financial risk prevention, and gives the research ideas of artificial intelligence financial risk prevention mechanism, by controlling financial loopholes and avoiding financial risks. Promote the effective construction of financial management of basic education and inject vitality into the development of education.*

**Keywords:** Internet financial risk AI Basic Education

## 1. Introduction

This paper by exploring the application of artificial intelligence in financial risk prevention, the article transforms the post-reporting of financial work risk control into a combination of ex ante budget, in-process control and post-event supervision to promote the transformation of basic education financial management and promote the overall education industry progress.

## 2. Basic Education System Financial Risk Profile

With the rapid development of the Internet, the requirements for timeliness and compliance of basic education financial activities have increased, and the risks of fund use effectiveness, financial operation compliance risks, and education system corruption supervision risks have increased. First of all, the speed of data update in the context of the Internet is accelerating, and the timeliness of financial work in the basic education system is increasing. Secondly, the frequency of review by the regulatory authorities has increased, and the review of compliance with financial education in basic education has been strengthened. Finally, the age of the Internet, cloud computing technology development, tax evasion, fraud and other illegal picket difficult to reduce the government for basic education financial corruption issue surveillance intensified. The economic activities of the basic education system will increase, and minor financial problems will be instigated by the Internet. The negative impact will be amplified by the public's high attention to basic education. Therefore, the prevention of financial risks in the basic education system in the Internet era plays an important role in the sustainable development of education.

## 3. The Financial Risk Performance and Causes of the Basic Education System under the Background of the Internet

The basic education financial workflow is divided into three main procedures: budget, budget execution, and final accounts. In the era of big data in the Internet, the improvement of timeliness, compliance, and corruption supervision of basic education financial activities has caused any mistakes in financial work to cause financial operation risks, debt crisis, regulatory risks, and financial management risks. Restrict the sustainable development of schools

### 3.1 Risk Analysis in the Budget Phase under the Background of the Internet

#### 3.1.1 Accounting Staff with a Lag of Fiscal Policy Update Response

In the traditional basic education financial work, the fiscal and taxation policy is slower to update, and the accounting personnel's information processing ability is low. However, under the new situation of rapid Internet development, the timeliness of policy update is enhanced, and the lag of accounting personnel on the information will lead to the lack of financial operation. Policy basis, high risk of violations. The reasons and performance are mainly divided into two points.

First, the basic education sector has non-profit characteristics. Accounting staff lacks motivation for information acquisition and processing, which makes the basic education institutions lag behind in accepting policy information changes. The speed of information screening and editing cannot meet the needs of policy changes. Second, the basic education department is limited in funds, accounting personnel are scarce, fiscal and taxation policies are updated quickly, and policy processing and editing costs are high.

For example, the private school's policy on the refund of student accommodation fees has changed. However, because the school accounting department has not corrected the information on the refund in time, the old system is still used, and the financial supervision risks are exposed. The person in charge of the school will bear the disciplinary action.

### 3.1.2 Budgeting and Financial Expenses do not Match the Facts

In the traditional basic education financial work, the asset purchase information inquiry mechanism is not perfect, the budget deviates from reality, the picket is difficult, and the risk is hidden. However, under the new development of the Internet, the advancement of information inquiry technology promotes the budget formulation from actual risk exposure, budget and The expenditure is out of touch, causing financial operation risks.

Due to the non-profit nature of the basic education sector, budget work often ignores the impact of market factors on budgeting. First, there are violations of the budget law and the internal control norms of administrative institutions. The budget at the beginning of the year lacks rigid constraints, which leads to the risk of budget preparation and the actual financial needs of the school. Second, the school leaders and budgeters draw on the information of the previous year or simply report the budget data such as asset purchase and maintenance in an "estimate" manner, and the financial expenditure activities lack precise calculation. Third, the disjointed financial platform between schools has made it impossible to improve the school budgeting with reference. Managers cannot accurately grasp the operation of the school and easily lead to financial operation risks.

## 3.2 Risk Analysis in the Budget Execution Stage under the Background of the Internet

### 3.2.1 Budget Execution Risk Control is Weak

First, at the level of income budget implementation, the information transfer of the traditional basic education financial system is blocked, the violations are concealed, the regulatory risk is low, and the force majeure has little impact on financial operations. In the context of the Internet, the speed of information transmission is accelerated, and the supervision of violations is strong. The impact of unexpected risks is enhanced, and the risks of compliance, regulatory risks, and financial management and control risks increase during budget execution.

Second, at the level of expenditure budget implementation, the traditional basic education financial system has a poor external information flow, and it is difficult for superior departments to control the budget expenditure. However, in the Internet era, the information transmission and supervision mechanisms are sound, and the State Council's mechanism for deepening the compulsory education funding guarantee In the Notice of Reform, it is necessary to set clear requirements for assessing whether the school's expenditure budget is implemented, and to require the establishment of an assessment and supervision mechanism.

### 3.2.2 Batch Invoice Processing Costs are High

In the traditional basic education financial system, the frequency of review is low and the risk of backlog of bills is low. However, in the context of Internet development, the timeliness is enhanced, the frequency of bill review is enhanced, and the cost of stacking bulk invoices is high and can lead to cumulative financial risks. The cause is divided into two points. First, the school's economic activities are

complex, teachers are out of training, teaching materials procurement and other reimbursement matters, and the consequent financial reimbursement drawbacks are increasingly exposed. Second, the state has strict regulations on reimbursement of bills. For example, the reimbursement documents for school hospitality must strictly indicate the number of hospitality personnel and the number of people, and attach an invoice for the meal fee. However, due to the numerous precautions for reimbursement of bills and the advancement of counterfeit instruments, problems such as filling errors and false tickets cannot be fully discovered by manpower alone.

### 3.2.3 Approval Process is Highly Risky

In the traditional basic education financial system, financial approval is done manually. Due to the leadership authority and the world, the review and supervision are not strict. However, under the background of the Internet, the financial approval and supervision are strict, and the compliance risk exposure is exposed. In the basic education system, due to the shortage of funds and manpower, managers often neglect the establishment of the examination and approval system and the supervision system. The number of financial personnel is scarce. The authenticity of the examination and approval content and the legality of compliance are not strict, the power is too concentrated, and it is easy to breed violations. Behavior, resulting in the misuse of financial funds, triggers the risk of financial operations in schools.

## 3.3 Risk Analysis in the Final Stage of the Internet

### 3.3.1 The Final Calculation Data is Difficult to Manually Check

The final accounting work is mainly composed of financial personnel completing the final account settlement system and finalizing the data. In the traditional basic education financial system, the final accounting work is completely done manually, and the error correction rate is low. However, in the context of the Internet, it is extremely difficult to escape the loopholes, leading to financial management and verification risks.

In addition, the lack of statistical analysis data of school financial operations accounts for managers to analyze the school's operating conditions, and the revision of the next year's planning has caused great inconvenience and triggered serial financial risks.

### 3.3.2 Tax Calculations Lead to Regulatory Risks

In the basic education system, due to the particularity of the teacher profession, the composition of income is often diversified. At this time, manual registration not only has the possibility of missing revenue, but the calculation of tax is also very prone to problems. Manual registration has completely failed to meet the needs of modern tax payment.

## 4. Artificial Intelligence Financial Risk Prevention Mechanism Research

On the basis of big data, artificial intelligence has the characteristics of deep learning, cross-border integration,

human-computer coordination, group intelligence openness and autonomous intelligence. First, AI technology tracks the bulk data through algorithms, and handles repetitive work such as fiscal and taxation policies, receipts, and other financial documents. It is cost-effective and efficient, and is extremely effective in dealing with financial real-time risks. Secondly, the algorithm can continuously analyze the trend by training the millions of data, alert the financial operation risk hazard in advance, improve the accuracy of real-time approval, and deal with the risk of financial operation effectiveness. Finally, machine learning algorithms track and analyze data across multiple channels and devices, and the system automatically detects "abnormal" behavior and prevents financial system corruption risks.

#### 4.1 Data Collection - Timeliness Enhancement

Use crawler software to collect and filter the updated data of accounting standards and the issuance of inter-bank accounting standards and related policies. Through the reminders of accounting personnel and intelligent editing of computers, the accounting standards are formulated and improved, and the accounting accounts are set and even reimbursed. The changes provide a legal basis. Liberate the workload of accountants to be timely, fast, flexible, truthful and fair.

#### 4.2 Operational Control - Process Compliance

Establish a database system, realize multi-directional sharing of information such as inter-bank accounting standards, and build a data storage structure through user demand guidance, effectively eliminating information island problems. Using modern information transmission mechanism, effectively synthesizing the goals and plans of various departments, compiling budget drafts in combination with budgetary annual income, and crawling, learning, and training on typical budget cases through artificial intelligence, combined with budget common sense and big data collection quotation pairs. The draft budget gives reasonable advice or self-correction to effectively control compliance risks in the financial operations process.

#### 4.3 Supervision Mechanism - Transparency of Financial Operations

Establish an intelligent standard execution system, through the budget withdrawal control model, coordinate with the budget formulation, decompose the implementation process, strictly supervise and evaluate each step of the process, control the risk factor of budget withdrawal, and provide timely feedback to ensure the implementation process. Standardization.

Through the application of artificial intelligence, the risk control of financial work will be transformed into a pre-existing budget, an in-process control, and an after-the-fact supervision. This will enable decision-makers to control the operation of the school as a whole and achieve the management objectives of sustainable development of basic education. The transformation of basic education financial management work promotes the overall progress of the education industry.

## References

- [1] T. Xu, Y. Tu, "Discussion on the Debt Crisis of China's Basic Education," *Economist*, pp. 66-67, 2007.
- [2] C. Dong, "On Big Data and Enterprise Financial Risk Early Warning," *China Chief Accountant*, pp. 84-85, 2018.

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