Retraction

Retracted: Design of Financial Information Management System and IoT Application Based on Fuzzy Comprehensive Evaluation

Wireless Communications and Mobile Computing

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

1. Discrepancies in scope
2. Discrepancies in the description of the research reported
3. Discrepancies between the availability of data and the research described
4. Inappropriate citations
5. Incoherent, meaningless and/or irrelevant content included in the article
6. Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article’s content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

Research Article

Design of Financial Information Management System and IoT Application Based on Fuzzy Comprehensive Evaluation

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In light of the current financial information management system’s poor performance, this paper proposes a design method for a financial information management system based on fuzzy comprehensive evaluation, which improves the system’s operation performance by improving the system hardware structure setting and improving the system software function combined with the principle of fuzzy comprehensive evaluation. Finally, the experiment demonstrates that the financial information management system based on fuzzy comprehensive evaluation has a high practicability in the process of practical application, allowing it to effectively avoid financial management risk while also improving financial information management quality.

1. Introduction

Financial management systems are the future development path in this area. To achieve real-time synchronization of various financial data from the enterprise, the system uses modern methods of data entry, data processing, and data storage. As a result of the continuous improvement of the national economic system, the economic interests of various types of companies in society have improved, and the industrial outcomes have made qualitative leap, leading to the formation of the current big data model of finance. The amount of financial data is enormous, and there are many types of data that have led to the formation of current big data models in finance. Big data is a relatively new term and has received a lot of attention in recent years [1]. By recognizing a large number of data characteristics with complex sources, you can capture the connections between the data and analyze different data metrics. Given the unique characteristics of current financial data, we omit traditional sample analysis and collection methods of data processing when conducting risk assurance assessments of a company’s financial information management system [2, 3]. All financial data and information of a company are large, fast, diverse, and slow in order to accurately understand system risks, keep risk modules secure in a timely manner, and ensure the safety of the company’s financial information. It is processed by the data. The introduction of this estimation approach frees corporate financial managers from the burden of risk management and management and provides the concept of risk estimation in other information management systems. The Internet of Things (IoT) has been viewed as the focal point of merging industrialization and information technology as information technology has advanced. The Internet of Things (IoT) is a technology that links systems, systems, and people to information resources and intelligence services. Data are gathered and exchanged via a standard protocol by means of the IoT, unlike how industrial EMS components operate.

2. Financial Information Management System Based on Fuzzy Comprehensive Evaluation

2.1. Hardware Structure Optimization of Financial Information Management System. The system development technology includes asp.net technology and Visual Studio development environment. The mature net framework is adopted in the design, the operating system adopts Windows Server 2007 version, and the system access can be realized as long as the client is above IE60. The database platform adopts Microsoft SQL Server 2000 enterprise version, which
is convenient for management and operation. The foreground development tool adopts Visual Studio.net development tools [3]. The improvement climate is the Visual Studio 2005 incorporated improvement climate, which makes framework improvement and testing a breeze. The current popular ORM framework is adopted, and the ORM mapping layer adopts Hibernate. Developers can realize database operation without writing code. Enterprise financial information system is a complex database, which contains many contents, the most important of which are administrative business processing, enterprise asset allocation, and management information system [4]. The three parts constitute the most important part of the enterprise information system. Fuzzy comprehensive evaluation provides a multilayer end-to-end application system architecture, as shown in Figure 1.

The system plans to adopt BS structure and develop the system by using Microsoft Visual Studio 2005, an efficient and advanced system development tool. The background database uses Microsoft SQL Server 2005, an open-source database with high security and good portability, and uses ADO.Net database access technology to access the background database [5]. All technologies are currently mature mainstream technologies, and there are many successful cases. Members of the project team are familiar with the application of technology, and relevant personnel in the enterprise have a considerable understanding of the application of MIS. Therefore, technically, it is completely feasible to develop the system. The design method and mode of ERP financial management information system are also based on this. In the structure of MVC, fuzzy comprehensive evaluation architecture is the most common application. MVC is especially suitable for a large number of client access data and multiple interactive web applications. A workflow architecture can carry out more process control, and the architecture of design pattern can solve the application in system design, which is also very helpful [6], because the structure of MVC is widely used in the architecture of interactive applications. The client layer, show layer, business layer, and information layer are the three levels that make up the MVC design in the view of fuzzy comprehensive appraisal. Each layer's function plays a vital role. Figure 2 depicts the structure.

MVC stands for model view controller, and it is a software design model. The MVC (model view controller) software architecture paradigm is used to construct the user description diagrams. It splits an application program into three parts: model, view, and controller, all of which are interconnected [7]. In MVC architecture, the model represents the information from the inside of the information, and the controller proposes or accepts the methods from the user. In general, the difference from other software patterns is that MVC architecture represents the “core of the solution” problem and allows it to adapt to the development process of each system [8]. In the current environment of Internet development, based on the specific MVC architecture, it is usually developed in the mode of JSP + servlet + JavaBean, as shown in Figure 3.

The B/S three-tier structural model is used in the system. The B/S (browser/server) structure consists of a browser and a server. It has risen in tandem with the advancement of Internet technology. The WWW browser is used to create the user interface. The majority of transaction logic is implemented on the server, despite the fact that some transaction logic is implemented in the browser. It is a modification or enhancement of the C/S structure. However, both B/S and C/S have their own advantages and disadvantages. The following is a simple comparison between them [9, 10]. The business logic layer is mainly composed of business object class and data persistence class. The processing of business objects and data persistence class is combined, although they are separated and independent in form. However, as a unified program, the two are a whole in the business logic layer. The business processing software needed in the real society is actually formed. Generally, the abstract processing of business objects is carried out by logical operation, and the processed structure is summarized and summarized in the form of database to form a permanent storage platform, which is convenient for the perfect final processing of data results [11]. Struts controller acts as a bridge between WCB view and servlet. The servlet request is sent to the request processor through the controller, where the WCB view is an instance of the action class. Web applications can be embodied through different use objects, such as action objects. After sending the instruction request for processing tasks, the controller can easily obtain the request processing results through struts-config.xml file mapping. Furthermore, MVC-based Internet applications can accomplish very effective partition control, simplify program development procedures, and save time and money by incorporating the following aspects: It is easy to design and validate HTML form processing algorithms; the system uses a B/S three-tier structural paradigm. The B/S (browser/server) structure consists of a browser and a server. It has risen in tandem with the advancement of Internet technology. The WWW browser is used to create the user interface. The majority of transaction logic is implemented on the server, despite the fact that some transaction logic is implemented in the browser. It is a change or improvement to the C/S structure. B/S and C/S, on the other hand, each have their own set of advantages and disadvantages. The following is a simple comparison between them [12]. In order to increase the timeliness of financial data, the network technology is used. From the logical structure, the presentation layer, business layer, customer layer, and database layer constitute the core application system of the whole model, respectively. In this structure, the presentation layer is mainly used for business processing. The presentation layer will correspond to the processing instructions sent by the client and display the processing results in the client layer. The client layer is mainly the program module of human-computer interaction application. The business layer is responsible for the implementation of the whole processing program, including business processing and data collection and storage. The business logic layer is mainly composed of business object class and data persistence class [13]. The processing of business object class and data persistence class is combined, although they are separated and independent in form. However, as a unified program, the two are a whole in the
business logic layer. The business processing software needed in the real society is actually formed. Generally, the abstract processing of business objects is carried out by logical operation, and the processed structure is summarized and summarized in the form of database to form a permanent storage platform, which is convenient for the perfect final processing of data results. Struts controller acts as a bridge between WCB view and servlet [14]. The servlet request is sent to the request processor through the controller, where the WCB view is an instance of the action class. Web applications can be embodied through different use objects, such as action objects. After sending the instruction request for processing tasks, the controller can easily obtain the request processing results through struts-config.xml file mapping. In addition, MVC-based Internet applications can achieve very effective partition control, simplify the steps of program development, and save time and cost. It mainly embodies the following aspects: (1) control the class of program flow; (2) control the program application convenience in logical structure processing; and (3) it is easier to create and verify HTML form processing programs.

2.2. Function Structure Optimization of Financial Information Management System Software. The system initialization module completes the initialization setting module of the parameters of the whole information system to provide technical support for subsequent system recovery. The system initialization template can reduce the user’s later setting time, and the whole parameter setting can be set by the system administrator at the same time. Therefore, the module can be used as the initial stage of the whole system.
and also as the later maintenance stage of the whole system [15]. It plays an important role in the whole system. According to the permissions of different users, the system administrator can set the forks of different staff to use the system and initialize the common functions in the system. This module can be used as the security module of the whole system to limit the viewing permission of users, so as to ensure the confidentiality of information and meet the confidentiality specifications of enterprises [16]. The A/C set management module can input financial data from a company’s operation in real time, based on the company’s operation status, in order to offer data support for the implementation of subsequent functions. This module serves as the system’s database. The financial data input of this module provides the data for the entire system. A/C set is the key function module of the entire system, as it contains financial management data. Figure 4 shows the system functional structure requirements.

The overall design adds the main functions such as financial analysis, cost accounting, and system management and transmits data through the user layer, system layer, and data layer. In the voucher management process, the corresponding vouchers are processed in a standardized business process according to the basic requirements of accounting, mainly for entry and approval [17]. After meeting the requirements, the program will automatically generate voucher reports according to the status of the entered vouchers and make a comprehensive summary of voucher management, so as to understand the overall situation of voucher management in detail and lay a good foundation for the next financial process. The overall design of the system is shown in Figure 5.

The data layer, middle layer, and display layer of the underlying database interface are all used in the design of the financial information management system. The data layer is where financial management service processing information, such as financial data and asset data, is stored. It can do query, modification, and maintenance activities, as well as storage operations, and improve data management efficiency [18–20]. The financial management intermediate layer connects the database to the business logic layer for access ports, establishes a generally stable high-level application environment, and enhances system scalability. The system presentation layer and the data presentation layer are both primarily presented in the browser. The data management module adopted by enterprises is mainly realized through information table, including enterprise information table, management information table, and data change information. See Tables 1 and 2 for the field design of each information.

With the utilization of present day information and organization innovations, a financial information management framework is an organized and measured activity of information examination, forecast, arranging, checking, and different connections in financial management [21–23]. It very well might be isolated into five areas, as per the program structure generally utilized in the present society: association network, bookkeeping exchange handling, financial management, financial navigation, and financial manager. The financial information management framework executes factual control of financial information as per the general course of financial information control in the genuine effort process. How much information that can be dealt with in the standard financial information management framework’s risk appraisal system

![Functional requirements of financial information management system](image-url)
is restricted. To gauge information risk, just the examining study approach is utilized, disregarding the information connection between information. Thus, with regard to enormous information, completely think about the effect of framework equipment, programming, and human variables; coordinate all information; and fabricate a financial information management framework risk assessment model concerning past assessment models' depictions of framework capabilities and devices [24–26]. Every module of the primary fake test finishes a typical job and interfaces the information by means of the correspondence module to finish an assortment of capabilities for a comprehensive undertaking or a solitary subtask.

Bookkeeping exchange handling is principally used to supply organizations with precise and ideal financial information to further develop financial management productivity. From one perspective, during the down-to-earth activity of a financial information management framework in the period of large information, the framework ought to capably assume the part of enormous information specialized means to figure out and deal with financial information, guaranteeing the ideal plan of inner capital of undertakings; then again, the most common way of bookkeeping exchange handling ought to be changed in accordance with staying away from the disarray of information program information control process. The proper association of work in this association can take out secret dangers in the circle of outside control, and it mirrors the solid application type of the present financial information management framework. The main function of voucher summary database table is to store the name and number of a summary, and the number is automatically generated by the selection system. For this purpose, the database of the document management module can be accessed through Tables 3 and 4.

According to the analysis and research of fuzzy comprehensive evaluation on the budget system, the budget table is prepared. Under the condition of underdeveloped information technology, the data in various budget tables are filled in manually, which is not only inefficient but also prone to errors. However, with the rapid development of information technology, financial personnel can compile the required data into the information database by formulating various preparation rules. When using, they can automatically
produce all information data by simply inputting some key data. This method greatly improves the efficiency and accuracy of budgeting and brings great convenience to the company’s financial calculation. Therefore, the group’s financial management level is under the network environment.

2.3. Realization of Financial Information Management. In light of fuzzy comprehensive evaluation, the financial information management framework examined and made takes on the construction of an organized financial information management framework. The application layer of the information interaction system is aided by the fuzzy comprehensive evaluation structure. It mainly realizes the common functional modules, account book management, voucher management, system setting, and so on. The system middle layer can exist as a compatibility layer. The financial database is used to store data information. According to the set financial processing formula, the system automatically performs statistical accounting, accounting, and project accounting, and the system can also automatically classify bookkeeping vouchers, financial statements, etc. The functional structure of the financial information management system designed in this paper is shown in the figure. The architecture of the financial information management system is designed and established. The overall framework of financial information management system is shown in Figure 6.

In the utilization of a financial information management framework in a major information climate, risk control of the financial choice help connect is likewise the main risk guideline strategy. The venture financial information examination in light of the endeavor financial explanation information is essentially the financial choice help connect. It is capable of making financial capital data decisions based on a fuzzy thorough evaluation of each link’s financial, business, and external data. This section’s financial information management system has successfully implemented factor control at the enterprise long-term operation analysis level. For example, in the age of big data, a business might use fuzzy comprehensive evaluation to manage its capital. It not just controls the components from the financial program information management part; however, it likewise examines the significant viewpoints from the field of financial choice help control to kill program management issues: create a financial information dynamic risk counteraction and control framework with a program computerization association. At the point when assets are required for ventures or designs in the organization, experts should foster financial management designs from the get-go and execute following examination of financial dynamic items in light of the risk anticipation and control needs that have been for starters evaluated. The financial choice help risk control segment should test the exactness of the information in the articulation once all information joins in the financial dynamic part which is likely to risk control. At the point when there are issues in the information in the articulation, risk anticipation and financial information fix ought to be done immediately. The consistent hub of the financial framework is considered by the evaluation model. While utilizing this hub to trade information or execute directions to the framework, it dynamically grasps the conduct attributes of framework equipment, programming, and administrators, and the correspondence connected between hubs is the manner in which financial information communicates, delineating the information collaboration relationship. The financial framework risk evaluation model is built as follows for the aforementioned structure:

$$\varepsilon = z \prod B + \sum A_i(a_j + a_k) + u n ((a_j - a_k)/\varepsilon).$$ (1)

In the formula, $k_i$ represents the $i$th function of the function $K$ of the management system; $z$ represents the logical set of function $B$ and lower node $A_i$; $u$ represents the set of logical relationships between nodes $a_j$ under function $a_i$; $c_n$ represents the number of logical nodes; and $e$ represents the coordinates of any two logical nodes on the $x$-axis and $f$-axis; $Q$ represents association relationships among $t$ nodes. The accuracy of test data is calculated as follows:

$$R = \frac{et}{tk + fp} + Q\lambda.$$(2)

In the formula, $r$ is the accuracy parameter for detecting financial information, $\lambda$ is the error information parameter, $f(x)$ is the background data screening and comparison parameter, and $g(x)$ is the error detection value. Batch and flow calculation methods should be utilized to process financial data for calculating risk indicators. $\delta$ is to such an extent that the risk assessment technique’s information handling pace can be further developed. Batch handling is utilized for information that is probably not going to change, while streaming processing is utilized for information that changes
powerfully continuously. The framework activity program’s line crossing risk record mirrors the risk that each control unit’s information during activity surpasses the predefined esteem that the framework can convey under various management modules; the deceitfulness risk file mirrors the risk that every information hub will lose significant information assuming the management framework’s activity falls flat. Coming up next are the ongoing calculation articulations for the two risk files:

$$\omega = Q\sum_{i=1}^{\infty} f(x)g(x) + Rm,$$

$$\varphi = E\sum_{x=1}^{\infty} Rd\mu + \omega p_xq_x - Mx.$$  \hfill (3)

In the formula, $E$ represents the system procedure risk index; $\mu$ indicates the risk data throughput; $\delta$ indicates the type of system/that represents the system’s data node in management mode operation program; for$P_r$, under thes management mode, this variable represents the risk generation likelihood; $q_x$ represents the data for the program operation $s$. In accordance with the $T$ network management mode, the data node’s risk probability density function is; $\mu$ addresses the program activity information, under the network management mode, the framework program risk seriousness capability of information hub $\varphi$ represents the dishonesty risk index of various financial data in the management system and represents the dishonesty data throughput; $Q$ is risk formation probability of dishonesty index under the $s$ management mode; $M$ represents the total amount of data; $x \in (-\infty, \infty)$ shows that there is a lot of information. The computation recipe of comprehensive risk record under the foundation of large information is acquired in view of the estimation consequences of the comprehensive equation:

$$\tau = R \sum_{i=1}^{\infty} \frac{\gamma_i}{E\big(S_i + 1\big)} + \varphi\big(\omega - \varphi\big).$$  \hfill (4)

In the formula, $S_i$ is the management system’s comprehensive risk index; $\gamma_i$ represents the node degree value correlation function $H$ data beneath the node of class $i$; $y$ indicates the significance of the management system node in terms of data volume $x$. A more complete risk pointer capability equation is generated by integrating the two categories of risk indicators. With the support of tax depreciation policy, Jones $Ai$ model is introduced to define independent variable, and dependent variable, respectively, in order to clearly describe the physical relationship between accounting policy change frequency, accounting policy change items, and earning management level. In the process of calculation, both the frequency of accounting policy change and the items of accounting policy change belong to the category of independent variables, while the dependent variable is only the level of earnings management, so there is always a nonunique correspondence between the three. The specific model definition results are as follows:

$$\frac{W_{Ai}}{Ai} = e^{-\frac{1}{\lambda} - \tau} + \sum_{i=1}^{\infty} \Delta \text{REU}_W + \frac{\text{PRE}_W}{\varphi},$$

$$\frac{Q_{Ai}}{Ai} = e^{-\frac{1}{\lambda} + \tau} + \sum_{i=1}^{\infty} \Delta \text{REU}_Q + \frac{\text{PRE}_Q - \text{COF}_Q}{\varphi} + \varepsilon.$$  \hfill (5)

In the formula, $W_{Ai}$ and $Q_{Ai}$, respectively, represent the quality coefficients related to the frequency of accounting policy changes and the change items of fuzzy comprehensive evaluation and represent the earning management conditions of listed companies, $e$ and $s$ represent the physical level of independent variables related to the frequency of accounting policy change and accounting policy change items, $\Delta \text{REU}$ is the change behavior vector on behalf of business matters, $\text{PRE}$ represents the change rate of tax depreciation, and $\text{COF}$ represents the change order of magnitude conditions of business matters of the listed company. According to the variable distribution in the formula, in order to promote the improvement of the frequency of accounting policy changes and the level of change projects, we should strengthen the construction of business development matters of listed companies and then promote the gradual accumulation and transformation of change behavior vectors. When the change rate of tax depreciates, change order of magnitude conditions, accrued profit statistics, and other indicators show an increasing trend and achieve directional accumulation of target variables. From the perspective of statistics, it is a number in itself, but under the condition of market economy, it is called risk state value, that is, the expected maximum loss value within a given confidence level and a certain period. Its mathematical model is

$$P\left(\frac{Q_{Ai}}{Ai}, \frac{W_{Ai}}{Ai} \leq \text{VAR}\right) = f.$$  \hfill (6)

In the formula, $P$ is the probability that the asset value loss will be smaller than the maximum loss: $\text{VAR}$ refers to the loss amount of a financial asset within a specific period; $f$ is the established confidence level. Fuzzy comprehensive evaluation is introduced to determine the restrictive relationship between all parameter conditions by defining independent variables and dependent variables, respectively. Let $s$ represent the value correlation parameter of accounting information, $\hat{x}$ represent the scale condition parameter related to scale effect, and $v$ represent the heterogeneous belief coefficient. Using the above variables, the fuzzy comprehensive evaluation can be described as

$$S = P\sum_{i=1}^{\text{VAR}} f(x - \hat{x})^3 \frac{Q_{Ai}/Ai}{\text{VAR}}.$$  \hfill (7)

In the period of huge information, the control of financial information management frameworks lies in risk counteraction from the application and oversight of big business financial information management information related to the genuine circumstance of big business activity and afterward working really hard in risk control during the preparation and evaluation phase of financial information management framework. In the login description diagram, the planned
financial information management system creates the login selection dialog box and populates the system description diagram with varied permissions based on different login user names, differential management administrators, and financial employees. The design of the system login module realizes the system security verification from the beginning of the login system and preliminarily realizes the security requirements of the system. The flow chart of user login system is shown in Figure 7.

The login process is depicted in the diagram. In the login box, the user first inputs the system name and password. The user’s information is compared by the system’s business layer. If there is information entered by the user in the database, it indicates that the system gives the user certain access rights and allows the user to log in to the main page of the system. If the information entered by the user cannot complete the pairing process, it means that the system does not contain the information assigned by the user, the user is not allowed to log in, and a dialog box will pop up to prompt the user. The financial information management system reflects the organization setting and hierarchical management, uses system audit to improve the settlement speed, takes the activity and total project management as the core, and has the ability of decision support. Apply high-tech network technology and data analysis to realize the real-time performance of the core of business finance and replace the lag. Implement the internal supervision and business control of enterprises or institutions; realize the prediction, management, analysis, and evaluation of all economic activities and work; improve the efficiency, strict execution, and risk resistance of internal activities; and improve the management ability to deal with accidents.
3. Analysis of Experimental Results

The designed financial information management system adopts the web database, which is connected through ADO to establish the database directly in the form. The following systematically introduces the system designed in this paper and expounds the test methods and skills in the process of system operation. To determine whether a developed system operates according to the developer's intention, software testing must be carried out, which is an important part of system development. Software testing should not only test the system code but also test the system function and performance. If you want to make a perfect system, you need to do countless software tests; the designed financial information management system adopts the web database, which is connected through ADO to establish the database directly in the form. The following is a systematic introduction to the system designed in this paper and expounds the test methods and skills in the process of system operation. To determine whether a developed system operates according to the developer’s intention, software testing must be carried out, which is an important part of system development. Software testing should not only test the system code but also test the system function and performance. If you want to make a perfect system, you need to do countless software tests. The test of this paper uses Windows XP system. For processor and other hardware, Intel Core 2 dual core, 4 GB memory, 2.53 GHz main frequency, and 500 B hard disk are selected. Performance test refers to the calculation of the operation efficiency of the system program and the main module functions designed. Generally, it is to see whether the system operates normally under various specified limit states and measure all technical parameters of the system operation in detail. Stress test refers to the systematic test of the maximum service level of the system according to the weak links and bottlenecks of the system, so as to obtain information of reference value. The performance test of ERP financial management system mainly adopts the pressure test method, and the model used in the test is still the step-by-step pressure mode. Start 10 concurrent users every 30 seconds, and the total number of users is 200. Implement user login and logout, and repeatedly perform login request operation according to the set time interval. The pressure curve is shown in Figure 8.

Based on the above detection results, it is easy to conclude that, in the same environment, the system in this study has higher risk identification accuracy than the traditional technique. None of the system’s use cases failed, but all succeeded. This shows that the performance of the financial information management system can meet the expected design requirements. After testing the overall performance of the system, the system has been comprehensively tested to prove that the design is effective and reasonable and can meet the system design objectives and expected visits. In the risk identification performance test, it is listed that when the amount of data exceeds 1000, the specific execution time of some pages in retrieval, insertion, update, and deletion shall be increased or decreased according to the situation, as shown in Table 5.

### Table 6: Performance comparison results of two management methods.

<table>
<thead>
<tr>
<th>Name</th>
<th>Traditional management system</th>
<th>Paper system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculation quantity</td>
<td>Great</td>
<td>Very small</td>
</tr>
<tr>
<td>Time-consuming</td>
<td>Many</td>
<td>Less</td>
</tr>
<tr>
<td>Processing costs</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Processing speed</td>
<td>Slow</td>
<td>Fast</td>
</tr>
<tr>
<td>Is time value considered</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Measurable hazard</td>
<td>Only the overall risk can be weighed</td>
<td>The overall hazard can be measured, and the single hazard can be measured</td>
</tr>
<tr>
<td>Predictable hazard</td>
<td>Can only predict the current danger</td>
<td>The danger can be estimated within a certain time range</td>
</tr>
</tbody>
</table>

### Table 7: System login performance test cases.

<table>
<thead>
<tr>
<th>Number of concurrent users</th>
<th>Number of login failures</th>
<th>Minimum response time</th>
<th>Average response time</th>
<th>Maximum response time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>0</td>
<td>0.687</td>
<td>0.735</td>
<td>0.968</td>
</tr>
<tr>
<td>45</td>
<td>0</td>
<td>0.765</td>
<td>0.865</td>
<td>1.065</td>
</tr>
<tr>
<td>100</td>
<td>0</td>
<td>0.968</td>
<td>1.065</td>
<td>1.563</td>
</tr>
</tbody>
</table>

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Based on the test results in the above table, it is not difficult to find that the financial management risk management method under the background of interest rate marketization can identify and avoid financial risks more quickly. The effectiveness of the research is tested as follows. The data of an enterprise from January to December 2020 are selected to verify its calculation amount, time-consuming length, management cost, management speed, time value, measurable risk, and predictable risk, respectively. To improve the dependability of the results, the traditional system is compared to the requirements of this study. Table 6 shows the performance comparison findings of the two management strategies.

It can be seen from the results in Table 6 that the traditional management system is affected by many factors in the enterprise’s change of asset structure, resulting in inaccurate prediction of interest rate change, especially when there are the same prediction conditions; it is also very difficult to adjust the gap. In view of the poor time division of gap management and the small value of interest rate sensitivity gap, there may even be individual wrong information. Its sensitivity gap ignores option risk and interest rate difference at the same time. The management method in this paper is simple and intuitive. It can directly observe the interest rate in each time period and understand the sensitive types of financial management and the size of risk at any time. In this paper, the system management cost is low, and the cost of preparing the gap report is small, which can greatly reduce the cost of financial management risk management. It is a good management method with less time consumption, high accuracy, and strong risk prevention awareness. The black box test is selected to observe whether the test results of the intermediate data of the system are accurate. The black box test mainly tests the system function and system performance. The function test of the system can detect whether the system function is perfect, whether the system data is complete, and whether the real-time data is powerful. The performance test of the system can include fast response time and speed. System login performance test cases are shown in Table 7.

<table>
<thead>
<tr>
<th>Test number</th>
<th>Test name</th>
<th>Test purpose</th>
<th>Testing procedure</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Modify voucher information</td>
<td>Verify whether the voucher information can be modified according to the system operation</td>
<td>Click the Add button to enter the new voucher information</td>
<td>Correctly modify the information and display the relevant interface</td>
</tr>
<tr>
<td>B</td>
<td>Voucher query</td>
<td>Verify whether the system can be installed and query credentials</td>
<td>Click the voucher query button</td>
<td>List the voucher information of all load queries</td>
</tr>
<tr>
<td>C</td>
<td>Delete voucher</td>
<td>Verify whether the voucher can be deleted correctly according to the system operation requirements</td>
<td>Select the voucher to delete</td>
<td>Delete message prompt, display delete</td>
</tr>
</tbody>
</table>

The entire company’s personnel are users of the financial information management system. Employees’ job materials differ, as do the network permissions involved. Therefore, the task of performance test is very heavy. Due to the different work contents of these employees, when they access the system, the operation response time selected by the system for different employees is different. The system needs to ensure that stable, safe, real-time, and reliable services are provided, and the user’s operation requests can be responded in time within a certain range. This section takes the login system of the system as an example and selects some functional modules for performance test. The landing example of performance test is shown in Table 8. The system carries out performance test on entering employee information, modifying employee information, and deleting employee information, account information, and voucher information, and the results of performance test are shown in the chart as shown in Table 8.

The financial information management system has ideal reflection time and perfect functionalities, better achieves the enterprise financial information management system, and can be used to actual enterprise financial management, according to the function and performance test findings.

4. Conclusion

The bet evaluation of money-related information of the board framework under the groundwork of large information is a speculative enrollment of the joining of mechanized suggestions in huge business capital organization structure. On this reason, this paper researches the bet evaluation strategy for financial information of the board framework through the pieces of various leveled interconnection risk appraisals, accounting trade risk evaluation, money-related organization module risk appraisal, money-related decision assist with risk control, financial manager information risk appraisal, etc. Thusly, the investigation outcomes of this paper give a notable arrangement to the consistent rule of local undertaking capital.

Data Availability

The data used to support the findings of this study are included within the article.

Conflicts of Interest

The author declares that there are no conflicts of interest.

References


