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Research Article

Simulation Model of Sports Entrepreneurship Performance Based on Wireless Sensor Network

Chao Ma, Weiqi Chen, and Yuge Tian

School of Physical Education, Shandong University, Jinan 250061, China

Correspondence should be addressed to Weiqi Chen; chenwq@mail.sdu.edu.cn

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Entrepreneurship has become the choice of many young people today, and many sports entrepreneurs have joined it. However, the entrepreneurial performance of sports entrepreneurs cannot be effectively guaranteed. Therefore, the design of the simulation model of the early warning management system of entrepreneurial performance is extremely urgent. It is based on the wireless sensor network that provides an important guarantee for the model design. Therefore, it is necessary to study the simulation model of sports entrepreneurship performance early warning management system based on wireless sensor network. The purpose of this paper is to start with the research on the simulation model of sports entrepreneurship performance early warning management system based on wireless sensor networks, select entrepreneurs from a sports university in our city as the analysis object, establish a wireless sensor sports entrepreneurship performance early warning management system simulation model, and then conduct multidimensional comparison. The research results show that the entrepreneurial performance of entrepreneurial projects continues to rise quarter by quarter. By the fourth quarter, product growth rates, labor productivity, and return on net assets had all increased by about 20%, while the turnover rate remained within the range of 20%-25%. It can be seen that the research on the simulation model of sports entrepreneurship performance early warning management system based on wireless sensor network can effectively improve the competitiveness of entrepreneurial projects.

1. Introduction

In recent years, the explosive growth of Internet users heralds the arrival of the era of Internet big data, and the arrival of the Internet has brought about tremendous changes in social patterns. Wireless sensor network has created new opportunities and entrepreneurial platforms [1]. When students of physical education colleges face the severe employment reality, we must, based on the particularity of sports and the industry nature of sports entrepreneurship, combine sports entrepreneurship cases, proceed from the actual sports entrepreneurship situation, coordinate the various forces of society, sports companies, and enterprises, and integrate social resources provide students with a platform for entrepreneurship, strengthen their sports entrepreneurship education, and effectively improve their sports entrepreneurship capabilities, so that students have a foothold in the job market [2]. In the concept of entrepreneurship, the earliest related work comes from foreign research on entrepreneurship. In order to encourage entrepreneurs to continuously innovate and improve the existing market, as well as the gradual market progress and economic development, many scholars have conducted extensive research on economic theory since then [3]. The "wireless sensor network" program provides new opportunities and platforms for online entrepreneurs. The cultivation of college students' innovation and entrepreneurship ability under the background of wireless sensor network are an education model that faces the times and the future, and it is an education method to realize students' sustainable learning [4].

Entrepreneurship requires a good management system, and a good performance management system can effectively improve the overall efficiency of the company. The performance system is an effective tool for managers, and it needs to be able to play a good role in regulating employees [5]. The performance system must not only comply with the

relevant provisions of the national labor law, but also be changed according to the company's situation on this basis. The main purpose of the performance system is to be clear, open, and transparent. If this main purpose is violated, it will be difficult to achieve the desired effect [6]. The design of the performance management system should reflect the main management thoughts of the business owners and then use relevant human resource management techniques to make amendments to become scientific management thoughts. This paper uses wireless sensor technology to design the performance early warning management of the sports industry. This scheme has strong practical feasibility [7]. First of all, the wireless sensor has a powerful parallel processing mechanism, a high degree of self-learning and adaptability, a powerful reasoning ability, and a powerful ability to process fuzzy information [8]. Therefore, if the disclosure is relatively incomplete and there is no effective evaluation mechanism, the wireless sensor is suitable for the risk evaluation of the performance early warning of sports entrepreneurs. Secondly, wireless sensors have unique learning capabilities [9]. We can continuously learn as the environment changes, discover laws from a large amount of complex data, and apply these laws to obtain relatively correct inference results. It is suitable for directly reflecting on the performance of sports entrepreneurs. Third, the wireless sensor is a natural nonlinear modeling process [10].

Compared with the previous literatures on entrepreneurial performance management systems, the innovative content of this article can be roughly divided into the following points: (1) From the perspective of entrepreneurship, sports are the main aspect. There are few previous literatures on entrepreneurial performance management in sports system. As a common industry, sports are often ignored by entrepreneurs. In fact, the sports industry has huge development potential. The sports industry has developed slowly, and it has a strong market economy in the process of gradual development of sports professionalization and marketization or in the pursuit of economic benefits and commercial development. (2) Combine the Internet and sports to keep up with the trend of the times. The application of the Internet in the field of sports will have a profound impact on the future of sports. The concept of wireless sensor network is a mature practical result of the further development of Internet thinking. It drives and enhances the vitality of social and economic entities, provides a broad information service platform for the reform and innovation of traditional industries, and taps and uses wireless sensor network technology in traditional industries. (3) Applying the entrepreneurial performance early warning management system to the sports industry, the development of the sports industry has always lacked standardized management.

This article mainly introduces the topic background, research purpose, and research significance of the thesis, briefly combs the innovations of the article, relevant research status, and research results, and expounds on the research theory and methods. Since there are little researches on sports performance management, the research status survey includes many other industries.

(1) The theoretical introduction mainly starts with wireless sensors and introduces the principles of wireless sensors

(2) The experiment includes the establishment of a wireless sensor sports entrepreneurship performance early warning management system simulation model and specific experimental steps. It also briefly describes the way the management system realizes its functions

(3) Then, it sorts out and analyzes the data generated during the experiment, including the application effect analysis of the wireless sensor-based wireless sensor sports industry performance early warning management system simulation model, and draws the relevant data into statistical charts

2. Entrepreneurship Performance Early Warning Model Based on Wireless Sensor

2.1. Related Work. Kasale et al. studied the organizational performance of sports organizations and studied the performance management of sports by studying the performance management system of national sports organizations. The article considers the unique nature of sports organizations and the relationship of interdependence as well as the operating system and the environment. Propose integrated model of performance management for sports organizations. The results show that sports organizations the ability to respond to dynamic external environment through the implementation of organizational processes, these processes will take into account the available resources, and its design will affect its performance management [11]. Ishizaka and Periera designed a new performance management system, which integrates multicriteria decision analysis methods and visualization techniques GAIA aircraft and stacked bar charts. Combined vision technology can accurately formulate training and development feedback. The results showed that each employee can clear vision techniques to identify and quantify areas for improvement through training and development to help treat tissue from a resource point of view [12]. Sharma et al. discussed the operational performance management system structure. We developed a measure of "employee views on the accuracy of the performance management system." The research results confirmed the possibility of the existence of a dual-factor PMSE structure, the factors including the accuracy and fairness of the performance management system. Construct validity by its relevance is important to establish the result variable. This research can help organizations identify and correct shortcomings of existing project management system [13]. Laitinen and Kadak study and analyze the differences between the performance management systems of small, medium, and large companies. The results show that the importance of key factors in a successful performance management system varies from company to company. However, the strength of key factor chain is positively correlated with the success of performance management system of each size

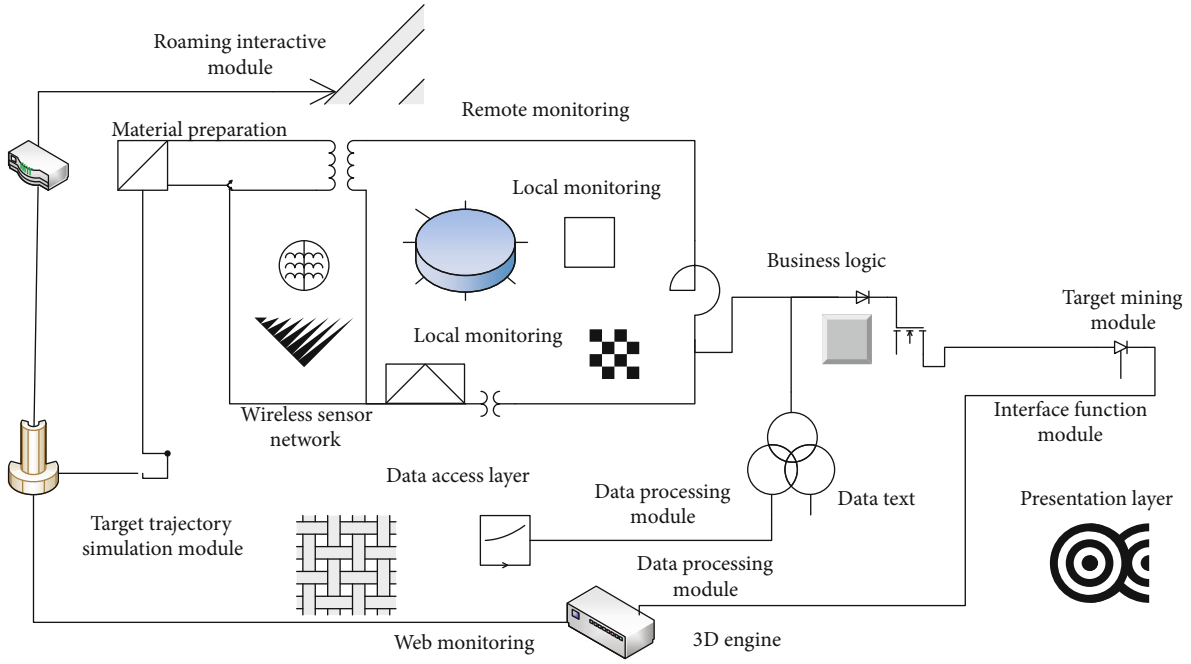

Figure 1: Communication protocol sensor electrical simulation framework.

Table 1: The mathematical meaning of the model.

	I	W	J
Assignment range	$I = 1, 2, 3$	$0 < W < 1$	$J = 1, 2, 3 \cdots, N$

level. This study reveals that there are "natural differences" between the performance management systems of small and medium-sized enterprises and large enterprises. Small companies pay more attention to the operational aspects of control, while large companies also pay great attention to the strategic aspects. Small enterprises use more informal performance management systems than large enterprises [14]. Ohemeng et al. studied how human resource managers use perceptual processes to try to institutionalize the performance management of public organizations in Ghana. In the process, four main activities were carried out, namely, workshops, seminars and trainings, one-to-one exchanges, and unit meetings. Research from the perspective of a developing country perspective, the research method used is a hybrid approach. Analysis shows that these activities in seeking to change the department have been very effective in terms of understanding performance management. Reformers must recognize the employees' perspectives when formulating and implementing reforms that focus on changing personal orientation and organizational and cultural reforms [15].

Mboweni and Lufuno discussed and described nurses' views on performance management system and made qualitative phenomenological research to explore and describe nurses' experience in performance management system. They used focus group interviews to collect data."?> The results show that nurses' view of the performance management system is negative. We need to improve leadership and management behavior by increasing productivity, job satisfaction, and organizational commitment. Constructive feedback, training, and capacity building, including the standardization and stabilization of performance tools, may improve this process [16]. Mcalearney et al. site visits and interview collected data on 194 key informants, to build a data model using model-based healthcare HPWP evidence. Research on high performance work practices suggests that these practices can be explained by the health system to improve the success of some of the differences in the quality of work; however, these relationships have not been systematically studied. However, what is certain is that an effective performance management system is helpful to the improvement of the health system [17]. Chapman et al. studied the quality improvement process of the performance management system of the health department to help manage people's physical health. The results should actively consider the use of performance data to improve public health. This practice involves the strategic use of performance indicators and criteria to establish performance goals [18, 19]. Performance management practices can also be used to determine priorities and allocate resources, inform policy or program guidelines need to be changed or adjusted target to managers, write reports on successful performance goals, and improve the quality of public health practice [20]. Liu et al. studied the impact of performance management for pollution control and environmental protection issues. The evolution of local environmental performance management system in 2007-2015 is described and analyzed. Studies suggest that the government improves the environmental performance management that involves all aspects of reform by reducing the complexity of the political environment, allowing for a more serious, open, and transparent decision-making process [21]. Ahenkan et al. investigated the current performance management system of a city

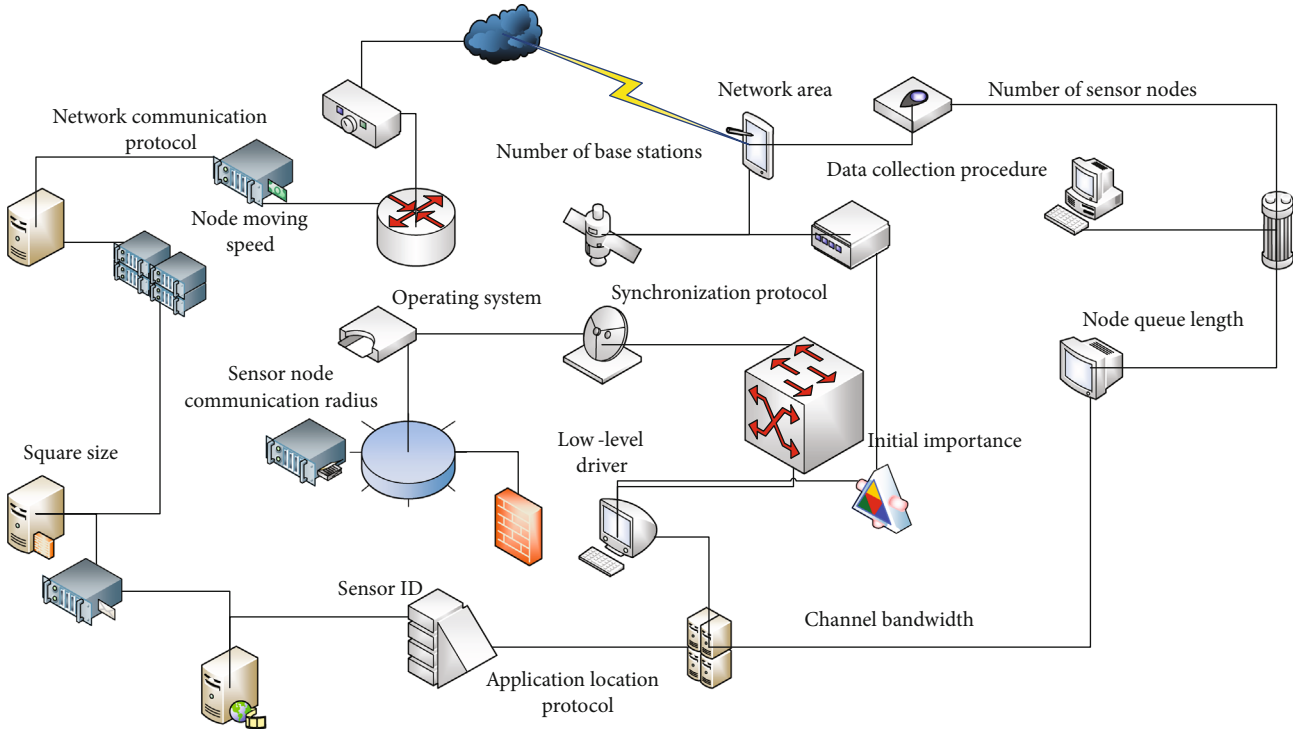

Figure 2: Sensor evaluation framework diagram.

Table 2: Impact of various risk factors on expected capital accumulation.

Item	First group	Second group	The third group	Fourth group
1	1.66	1.06	2.42	1.77
2	2.25	2.1	5.96	4.87
3	1.47	4.05	2.18	1.15
4	1.93	3.23	2.28	1.43
5	3.2	5.17	4.53	6.81

council and the challenges faced by the council in implementing its performance management system.

As shown in Figure 1, the performance management system of the conference is not effective enough, there are problems in the measurement and evaluation standards of performance evaluation, and the improvement of the performance management system still faces many challenges. Moreover, the training of supervisors and the link between performance management system and rewards and recognition are the keys to ensuring the effective implementation of the conference performance management system [22].

2.2. Algorithm of Wireless Sensor. Wireless sensor is a product that combines fuzzy logic and BP neural network [23], and sometimes genetic algorithm is used. It has the advantages of neural networks and fuzzy logic and integrates learning, association, recognition, and information processing [24].

Fuzzy reasoning is to express fuzzy conditional sentences with fuzzy relations and transform the judgment process of reasoning into the calculation process of composition process and membership process, that is, the process of understanding fuzzy propositions (primary and secondary hypotheses) and deriving new fuzzy propositions [25]. Fuzzy reasoning has three main steps: fuzzification, fuzzy reasoning, and defuzzification. In credit risk assessment, the goal of fuzzification is to input variables, and actual variables will be converted into language variables [26]. Use Gaussian function to blur input variables [27]. Fuzzy reasoning is a sample language description that obtains reliability based on rules set between input variables. Defuzzification is the conversion of oral descriptions of sample reliability into quantitative values. Some studies express the fuzzy control rule as an analytical expression, as shown in formula (1).

$$U = \alpha * E + (1 - \alpha) * \mathrm{EC}, \tag{1}$$

$$\mathrm{EC}* = \frac{n\sum_{i=1}^{n}\sum_{i\neq j}^{n} w_{ij}(x_i - \bar{x})(xj - \bar{x})}{S^2\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}}, \tag{2}$$

$$P* = \beta * \left(\frac{L}{(A)} + (\mathrm{In} - \alpha W)^{-1}\varepsilon\right). \tag{3}$$

Among them, E, EC, and U are the deviation, deviation change, and the fuzzy value of the control quantity, respectively; α is the correction factor, and the size of α reflects the weight coefficient of the deviation and the deviation change and reflects the thinking characteristics of the person in the control process; α with different values and different rule tables can be obtained to realize self-adjustment of the rules. This method overcomes the

Table 3: Distribution of early warning types of entrepreneurship.

Level	0	1	2	3	4
Meaning	No warning	Mild warning	Moderate warning	Severe warning	Crisis

Table 4: Process of entrepreneurship preparation.

Level	Productivity	Growth rate	Turnover rate	Capital gain	Profit	Value added
1	0.23	0.85	0.25	0.32	0.2	0.48
2	1.74	1.46	2.3	3.54	2.67	3.77
3	5.1	4.02	2.75	5.59	3.39	5.89
4	4.96	4.37	4.29	3.41	4.87	4.23
5	3.71	3.16	1.82	3.67	3.47	4.24
6	6.16	6.06	3.11	6.99	2.27	1.93

Table 5: Economic performance of entrepreneurial projects.

Level	Efficiency value	Sensitivity	Performance	Output efficiency	Input efficiency
1	0.36	0.44	0.43	0.7	1.53
2	3.71	2.45	1.12	1.66	3.4
3	2.01	3.38	4.19	4.33	3.64
4	5.31	2.74	1.14	5.94	3.63
5	3.89	2.2	3.9	4.79	4.63
6	3.61	5.69	6.74	2.73	2.67

difficulty of choosing rules based on experience alone [28]. In different states, the control system has different weight requirements for deviation and deviation change [29, 30]. Therefore, some scholars have proposed an adjustment method of fuzzy control rules with multiple correction factors, as shown in formulas (2)–(4).

$$U_0 = \alpha_0 * E + (1 - \alpha_0) * \mathrm{EC}\, E = 0, \tag{4}$$

$$U_1 = \alpha_1 * E + (1 - \alpha_1) * \mathrm{EC}\, E = \pm 1, \tag{5}$$

$$U_2 = \alpha_2 * E + (1 - \alpha_2) * \mathrm{EC}\, E = \pm 2. \tag{6}$$

Among them, U_0, U_1, and U_2 are the fuzzy value of the control variable, E is the deviation, EC is the deviation change, and α_0, α_1, and α_2 are the correction factors. Computers do not have the ability to recognize and determine ambiguity [31]. In order to realize the direct dialogue between natural language and computer, it is necessary to refine human language and thinking process into a mathematical model, that is, to realize the quantification of qualitative language. Fuzzy sets can realize the process of qualitative language quantification. In other words, use explicit mathematical methods to describe what is not correctly defined. Fuzzy set is an extension and generalization of classic set. This is a special case of fuzzy sets. The classic set has two results, that is, whether the element belongs to the traditional set. In the above formula, the calculation of E needs to use the error calculation in the principle of BP neural network, as shown in formula (5).

$$E = \frac{1}{2}\sum_{i=1}^{M}(X_i - Y_i)^2, \tag{7}$$

$$E^{(k)} = \partial_1 l_{\mathrm{bce}}^{(k)} + \partial_2 l_{\mathrm{iou}}^{(k)} + \partial_3 l_{\mathrm{ssim}}^{(k)}, \tag{8}$$

$$\begin{aligned}\partial &= \frac{n\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}(x_i - \bar{x})(xj - \bar{x})}{\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}(xi - \bar{x})^2} \\ &= \frac{n\sum_{i=1}^{n}\sum_{i\neq j}^{n} w_{ij}(x_i - \bar{x})(xj - \bar{x})}{S^2\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}}.\end{aligned} \tag{9}$$

Among them, E represents the error, X_i represents the sample, and Y_i represents the expected output. BP neural network is a kind of feedforward neural network, and its main characteristics are the forward transmission of signals and the backward propagation of errors. The input signal begins to pass from the input layer forward and is processed layer by layer by the hidden layer of the process until it reaches the output layer. If the predicted output value does not match the predicted output, the input signal is converted to back propagation, and the network weight and threshold are changed according to the prediction error until the predicted output value of the BP neural network is close [32]. The expected output is within the error range. Wireless sensors need to use many neural networks and principles and calculation formulas in BP neural networks, such as feedforward formulas, as shown in formula (6).

$$O = f(X * W + b), \tag{10}$$

$$O = 1 - \frac{\sum_{a=1}^{H}\sum_{b=1}^{W}\mathrm{EC}(a,b)\mathrm{EC}(xi - \bar{x})}{\sum_{a=1}^{H}\sum_{b=1}^{W}[\mathrm{EC} * (xi - \bar{x}) + \mathrm{EC}(xi - \bar{x}) - \mathrm{EC}(xi - \bar{x})EC * (xi - \bar{x})]}, \tag{11}$$

$$\mathrm{EC}_2 = \begin{cases} s - p_1 - kx_2, \\ x - p_2 - k(1 - x_2). \end{cases} \tag{12}$$

Among them, W and b are the parameters of the model, X is the current input, f is the activation function, and O is the current output. That is, the output is equal to the result of linear and nonlinear mapping of the input. After adding the feedback unit, the formula becomes a recurrent neural network, as shown in formula (7).

$$O_t = f(X * W + O_{t-1} * V + b), \tag{13}$$

$$\frac{(\mathrm{In}\text{-}aW)}{\mathrm{EC}}O = (\mathrm{In}\text{-}aW)Xb, \tag{14}$$

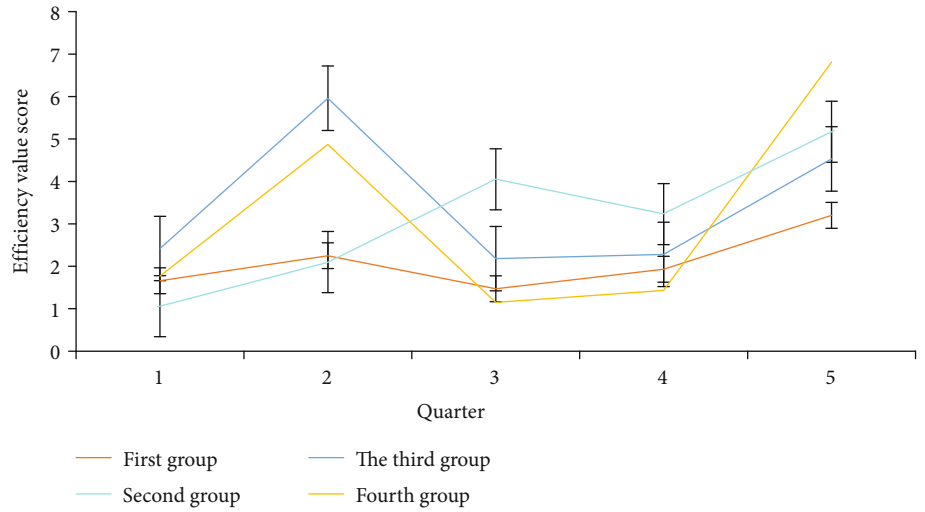

Figure 3: Comparison of the efficiency value of entrepreneurial projects.

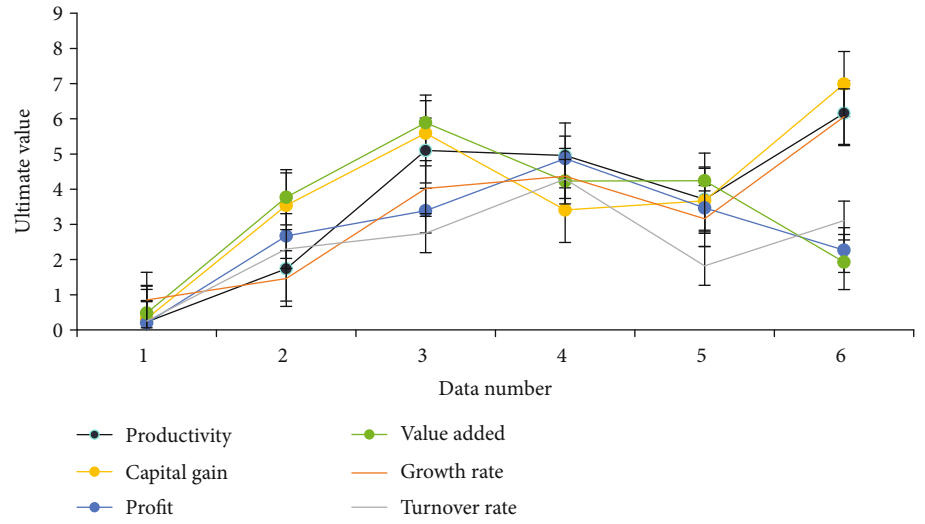

Figure 4: Social responsibility theory of stakeholders.

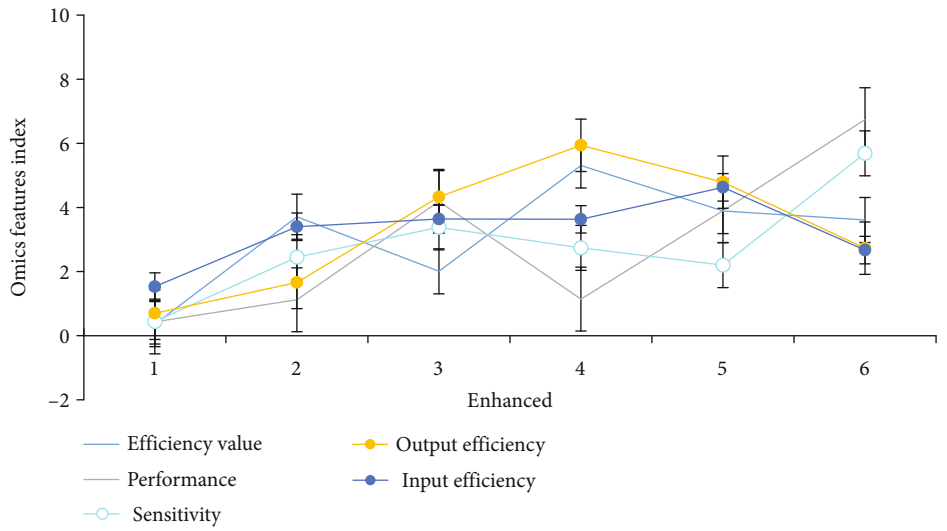

Figure 5: Effect of observing the increase or decrease.

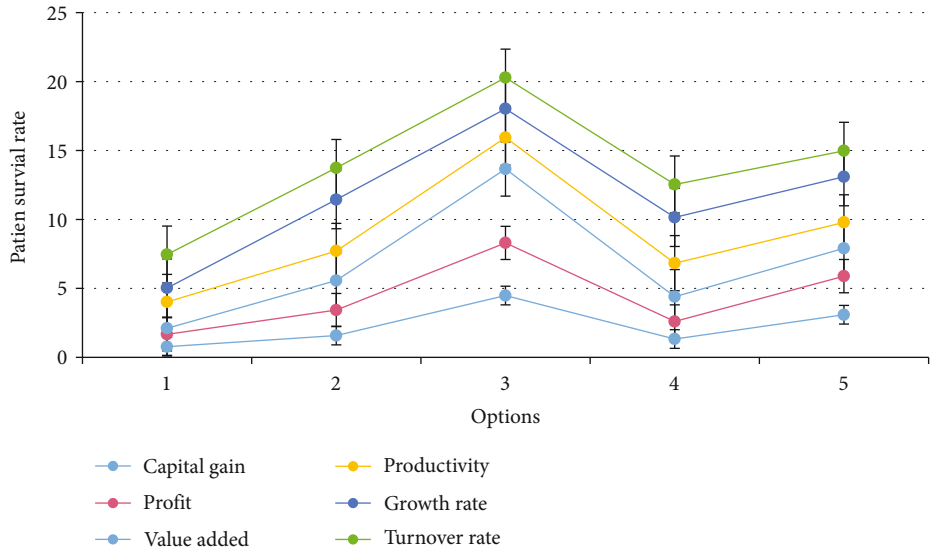

Figure 6: Economic performance and efficiency of decision-making units.

Table 6: Sensitivity analysis of entrepreneurial projects.

Level	Capital gain	Profit	Value added	Productivity	Growth rate	Turnover rate
1	0.77	0.9	0.44	1.91	1.01	2.43
2	1.58	1.85	2.14	2.15	3.72	2.3
3	4.48	3.82	5.36	2.28	2.09	2.26
4	1.33	1.27	1.8	2.43	3.32	2.39
5	3.09	2.8	2.02	1.88	3.31	1.88

$$\begin{aligned} \mathrm{EC}(d_i, w_j) &= P(d_i)\mathrm{EC}(w_j|d_i)\,;\mathrm{EC}(w_j|d_i) \\ &= \sum_{k=1}^{K} P(w_j|z_k)\mathrm{EC}(z_k|d_i). \end{aligned} \tag{15}$$

Among them, W, V, and b are the parameters of the model, the subscript t represents the current sequence position or time point, $t-1$ represents the last position or time point, X is the current input, f is the activation function, and O is model output.

Fuzzy theory believes that the basic characteristics of transitional things are uncertain, and their categories are not clear. For example, when determining whether a person is young, determine how many grains of rice are considered a mountain. There are no clear boundaries or ambiguities on these issues. The uncertain type of fuzzy logic is mainly divided into random uncertainty and lexical uncertainty. Random uncertainty mainly refers to the probability that things happen randomly. Lexical uncertainty refers to the phenomenon that human judgments on things vary from person to person. Most of the concepts used by humans are not well defined, but humans can integrate various factors to evaluate and make decisions. Computer languages usually have strict grammatical rules and definitions without ambiguity. Computers do not have the ability to recognize and determine ambiguity. In order to realize the direct dialogue between natural language and computer, it is necessary to refine human language and thinking process into a mathematical model, that is, to realize the quantification of qualitative language. Fuzzy sets can realize the process of qualitative language quantification. In other words, use explicit mathematical methods to describe what is not correctly defined. Fuzzy set is an extension and generalization of classic set. This is a special case of fuzzy sets. The classic set has two results, that is, whether the element C belongs to the traditional set L:

$$L = 1 - \frac{\left(2\mu_x\mu_y + C_1\right)\left(2\sigma_{xy} + C_2\right)}{\left(\mu_x^2 + \mu_y^2 + C_1\right)\left(\sigma_x^2 + \sigma_y^2 + C_2\right)}, \tag{16}$$

$$C = aWy + \beta_1 X\text{-}W\beta_2 X + \varepsilon. \tag{17}$$

There is a certain similarity between the quantization factor and scale factor of the fuzzy controller and the three parameters of the PID controller. The quantization factor represents the weight of the deviation and the deviation change, and the output scale factor is the gain of the fuzzy control system. Various quantization factors and scale factor self-adjusting fuzzy control methods are presented, as shown in formula (8).

$$\rho = \frac{E_{t+1}}{E_t}, \tag{18}$$

$$S_H = \frac{p_2 - p_1 + 1}{2}, \tag{19}$$

$$E = \sum_{x=1}^{\theta} Vx = \sum_{x=1}^{\vartheta}\left(\frac{Wx}{\sum_1^n W_{\Im}} Sx\right). \tag{20}$$

Among them, ρ is the adjustment factor, E is the deviation, the subscript t represents the current sequence position or time point, and $t-1$ represents the last position or time point. The biggest advantage of fuzzy logic is that it allows

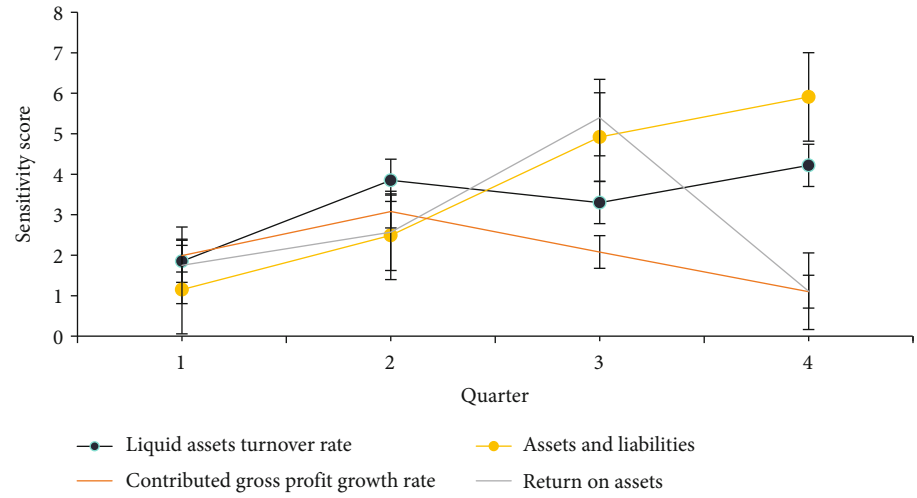

Figure 7: Comparison of the sensitivity of entrepreneurial projects.

Table 7: Strength of competitive sports in a region.

Level	Liquid assets turnover rate	Contributed gross profit growth rate	Assets	Assets and liabilities
1	1.85	1.99	1.75	1.15
2	3.85	3.08	2.57	2.49
3	3.3	2.08	5.4	4.92
4	4.22	1.1	1.11	5.91

users to describe the expected system behavior using simple if-then relations. The user can use all available knowledge to directly optimize the system performance, but this is the main limitation of fuzzy logic, because the user must manually obtain it from the if-then rules of the data set. A feature of neural networks is that they can be trained from data, but they are rarely used in practice, because neural network solutions are like a black box and users cannot explain how to obtain results. Fuzzy logic and BP neural network can be combined to build a neural network or wireless sensor that can automatically process fuzzy information. Its essence is to use fuzzy algorithm to realize the hidden layer of BP neural network.

3. Experiments on the Performance Early Warning Management of Sports Entrepreneurship

3.1. Experiment Preparation

3.1.1. Wireless Sensor Network Entrepreneurship Performance Early Warning Management System Simulation Model. The research model of this article needs to use wireless sensor algorithm. Fuzzy neuron is the basic unit of wireless sensor. The fuzzy neuron formulas that need to be used in wireless sensor are shown in formulas (9)–(11).

$$\begin{aligned} r &= h(W1X1, W2X2, \cdots, WnXn), \\ k &= f(r - T), \\ y &= g(k). \end{aligned} \tag{21}$$

Among them, r is the input of the fuzzy neuron; h is the aggregation function; k is the state function of the fuzzy neuron; f is the transfer function; T is the threshold; y is the output function of the fuzzy neuron.

Based on the subjective and objective weighting method of the analytic hierarchy process, a simulation model of the wireless sensor network entrepreneurship performance early warning management system is established, and the performance of sports entrepreneurs is divided into three categories: value, development, and efficiency. It analyzes every aspect and as a whole. Comprehensive evaluation methods: there are a variety of fuzzy compound operators that can be used for compound evaluation. The usual multiplication and addition operators are simple and comprehensive, while the actual operations are simple and straightforward. They can be evaluated scientifically, reasonably, comprehensively, and effectively and can be combined with the evaluation results for detailed analysis. The simulation model of the wireless sensor network entrepreneurship performance early warning management system is shown in formula (12).

$$C = \sum_{i}^{n} W_i \bullet P_i, \tag{22}$$

$$M_1 = \begin{cases} s - p_1 - x_1, \\ x - p_2 - (1 - x_1), \end{cases} \tag{23}$$

$$\frac{P}{W} = \frac{2k}{k+1} + \left[\frac{1}{2} + \frac{1}{2k}\right]\left[\frac{c_2 - c_1}{3}\right]^2 + \frac{2(c_2 - c_1)}{3}. \tag{24}$$

Among them, C represents the performance score, and W represents the weight coefficient. This evaluation model is meaningful because it is a comprehensive evaluation of the "SEE" of the SEE structure and the simulation model of the wireless sensor network entrepreneurship performance early warning management system. Therefore, the simulation model of the wireless sensor network entrepreneurship performance early warning management system is shown in Table 1.

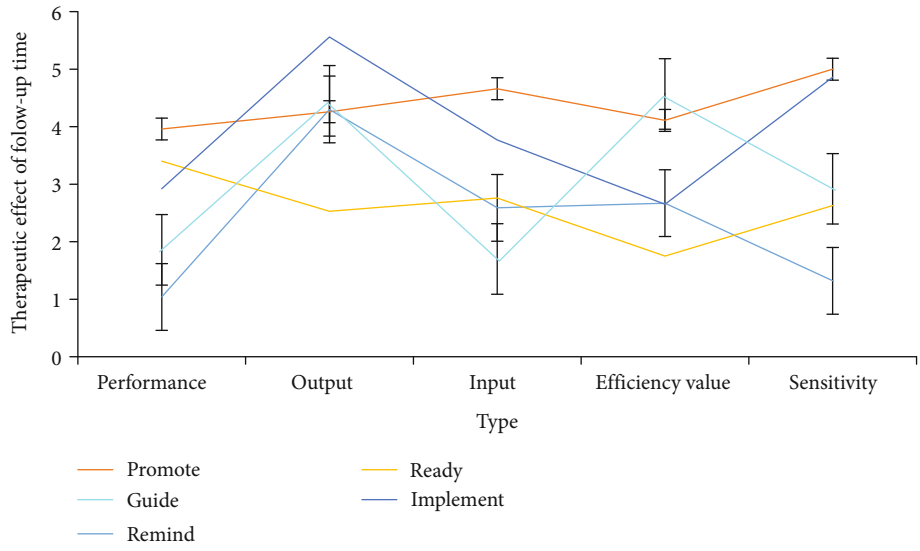

Figure 8: Overall strength of competitive sports.

Table 8: Performance of sports entrepreneurs.

Level	Promote	Guide	Remind	Ready	Implement
Performance	3.96	1.86	1.04	3.4	2.92
Output	4.26	4.45	4.3	2.53	5.56
Input	4.66	1.7	2.59	2.76	3.77
Efficiency value	4.11	4.57	2.67	1.75	2.65
Sensitivity	5	2.92	1.32	2.63	4.86

3.1.2. Evaluation of the Simulation Model of the Wireless Sensor Network Entrepreneurship Performance Early Warning Management System. Clarify evaluation indicators, establish an indicator system, and organize initial data for indicators. Determine the classic domain and partial domains. According to the existing data, the level to be evaluated is divided into several levels. Determine the value range of each index (section domain) and the data range of each level (classic domain) according to the requirements of related databases, professional documents, or expert opinions. Calculate the degree of association. The value of each index in the rating object will be imported into each level for rating. Determine the overall degree of relevance. Calculate the overall correlation, and determine the evaluation level according to the principle of maximum correlation.

3.1.3. Realize Function. The early elements of the performance early warning management system of wireless sensor network entrepreneurs require basic functions, such as early warning standard formulation, information collection and analysis, information processing, early warning strategy formulation, and decision-making. The information input to the system should include the company's external environment information and internal dilemma element information, strategic information, target information, and operational information. The system output based on early warning decision-making should be relevant early warning information of entrepreneur performance. Among them, the functions of information collection, information processing, early warning standards, and early warning processing determine the decision-making functions of the early warning system. The function of the financial early warning system is embodied in supporting the development of entrepreneurial policy flexibility based on changing entrepreneurial dilemmas and the development of appropriate early performance early warning on the basis of reducing unnecessary entrepreneurial waste.

3.2. Experiment Content. Select entrepreneurial students from a sports university in our city as the analysis object, select the data of the month of entrepreneurship, and use the simulation model of the sports simulation entrepreneur performance early warning management system to comprehensively evaluate the performance. The main purpose of performance evaluation is to effectively organize evaluation experts and use the established evaluation model to calculate and calculate the comprehensive operational performance SEE indicators based on the determined evaluation index system and standards. In addition to ranking performance scores, performance evaluation should also take key indicators or factors that affect the overall entrepreneurial project performance as the key theme for further performance monitoring.

3.2.1. Method Library Design. Method library management provides the following functions: method query, change method, and delete method. Various methods are centrally managed through the method dictionary. The structure of the method dictionary is number+method name+corresponding model name+calling condition+solver name. The method library of decision support system in this paper can be divided into index screening method, index confirmation method, and comprehensive evaluation method. Index selection methods include Delphi method and ISM optimization method. Index determination methods include

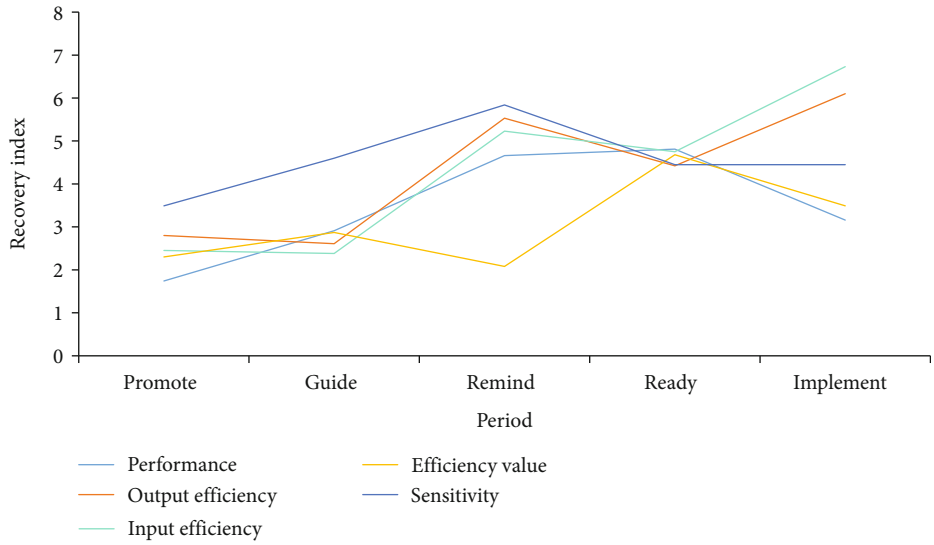

Figure 9: Spatial distribution characteristics of competitive sports strength.

Table 9: Evaluation standard value of each attribute.

Level	Performance	Output efficiency	Input efficiency	Efficiency value	Sensitivity
Promote	1.74	2.8	2.45	2.3	3.49
Guide	2.91	2.61	2.38	2.87	4.6
Remind	4.66	5.53	5.23	2.08	5.84
Ready	4.81	4.42	4.75	4.68	4.45
Implement	3.16	6.1	6.73	3.49	4.45

analysis of the hierarchy process, structural weight, and average weight.

As shown in Figure 2, comprehensive evaluation methods include principal component analysis, cluster analysis, fuzzy comprehensive evaluation, neural network evaluation, support vector machine evaluation, DEA evaluation, TOP investment evaluation, and GRA evaluation.

3.2.2. Early Warning Mechanism. Early warning rules are the core of the early warning model and are the criteria for determining whether the operational performance indicators are in good condition. The main tasks are as follows: one is to set indicator thresholds, and the other is to define warning states. According to the analysis, factors affecting economic performance are "bus loss rate," "return on equity," "economic value added (EVA)," "contribution of gross profit growth rate," "asset liability ratio," and "current profit and loss.". The six indicators of "asset turnover rate" are the main factors affecting economic performance. There are mutual influences and need to be monitored. When formulating early warning rules for key indicators, it is necessary to comprehensively maintain indicators, carefully consider factors such as industry standards, corporate strategic plans, and business plans, and set indicator thresholds reasonably.

3.2.3. Value Dimension Calculation. Select the indicators of the value dimension of the PE student's entrepreneurial project. The evaluation indicators mainly include input indicators, such as "number of employees," "total assets," "operating expenses," "asset-liability ratio," and "total profit." Performance indicators and basic data such as "Economic Value Added," "Net Asset Ratio," and "Growth of Total Contributed Profits" are very quantitative and easy to obtain. Input and output indicators are quantitative and structured characterization and standardization. Value dimension evaluation should not only compare the output of the business activity of the evaluation object, but also compare its input/output efficiency.

3.2.4. Development Dimension Calculation. Select the indicators of the development dimension of the student entrepreneurship project in the physical education department and the dimensionless processing of each indicator. Each indicator adopts the combination calculation method of AHP entropy weight. According to historical data, two ideal values of positive and negative are selected. The best and worst evaluation index values form an element and standardize the negative ideal material element.

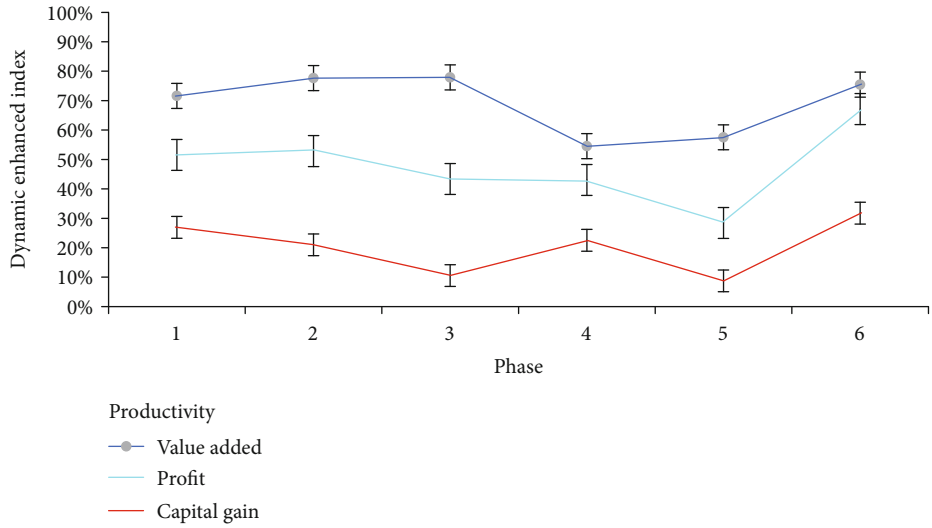

Figure 10: Comparison of different dimensions.

Table 10: Structure of mass consumption.

Level	Capital gain	Profit	Value added	Productivity
1	3.28	3	2.44	3.46
2	3.27	4.96	3.86	3.48
3	1.71	5.33	5.6	3.59
4	2.33	2.12	1.19	4.7
5	1.3	2.93	4.33	6.32
6	5.09	5.67	1.33	3.94

4. Results of Research on Simulation Model of Entrepreneurial Performance Early Warning Management System

4.1. Simulation Results and Performance Analysis

4.1.1. Application Effect of Simulation Model of Wireless Sensor Network Entrepreneurship Performance Early Warning Management System Based on Wireless Sensor. The application of the simulation model of the wireless sensor network entrepreneurship performance early warning management system can fully respond to the impact of entrepreneurial risk factors. Applying the simulation model of the sports entrepreneurship performance early warning management system can control financial policies to reduce the erosion of value performance risk factors and increase entrepreneurs. Net cash flow will be reduced, and the liquidity risk of the operating chain will be reduced. Adjust the investment level of the operation chain, improve investment efficiency, and realize the expected investment income.

As shown in Table 2, the content of entrepreneur value performance early warning management specifically estimates the impact of various risk factors on expected capital accumulation and value performance and determines how to control and respond to these impacts and provide feedback to the budget execution system. Ensure that the expected performance is achieved. The distribution of different warning types is shown in Table 3.

When the warning level is 0, it means that you can continue to implement the SCM budget or additional investment. When the warning level is 1, it means that budget capital accumulation has not been realized. When the warning level is 2, it means that the expected risk compensation has not been realized. When the early warning level is level 3, it means that the expected return on investment has not been fulfilled. When the warning level is level 4, it means that the achievable income cannot make up for the variable cost.

As shown in Table 4, for sports entrepreneurship students, teachers need to strengthen education in the process of preparing for entrepreneurship, implementing entrepreneurship, and promoting entrepreneurship, remind students of the precautions in the process of entrepreneurship preparation, and guide how to effectively manage capital during the entrepreneurial implementation process and how to prevent risks as well as tracking industry trends and national economic policies.

As shown in Table 5, use the simulation model of the wireless sensor network entrepreneurial performance early warning management system to evaluate the economic performance of entrepreneurial projects, focus on efficiency value analysis and sensitivity analysis, observe input and output efficiency, and find key performance influencing factors.

As shown in Figure 3, the first group of entrepreneurial projects has the highest efficiency value, especially in the third quarter, which reached 2.58. The second and fourth groups of entrepreneurial projects fluctuated greatly, and the third group of entrepreneurial projects maintained growth, but the growth rate was low.

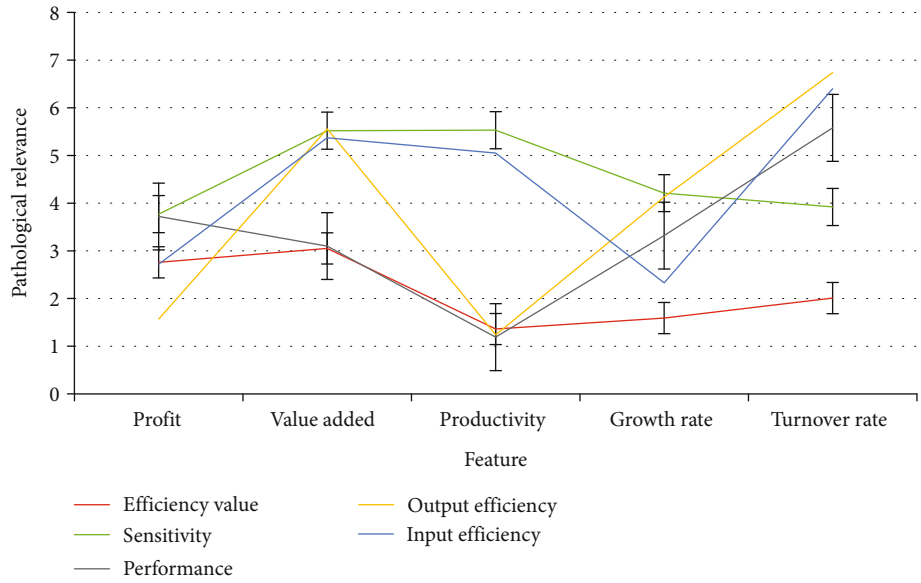

Figure 11: Modify plans and implementation plans.

Table 11: Intelligent sports venues in the sports competition performance industry.

Level	Efficiency value	Sensitivity	Performance	Output efficiency	Input efficiency
Profit	2.76	3.77	3.72	1.57	2.72
Value added	3.05	5.52	3.1	5.56	5.37
Productivity	1.36	5.53	1.19	1.24	5.05
Growth rate	1.59	4.21	3.32	4.13	2.33
Turnover rate	2.01	3.92	5.58	6.74	6.4

As shown in Figure 4, this shows that the simulation model of the Internet sports entrepreneurial performance early warning management system combines the social responsibility theory of stakeholders, analyzes various motivations, and establishes a performance evaluation index library. Following the principles of inclusiveness, simplicity, predictability, and practicality, we use the Delphi method to perform preselection of indicators to optimize economic performance indicators through the ISM structure interpretation model and obtain the efficiency value of each group.

As shown in Figure 5, the sensitivity analysis of the simulation model of the wireless sensor network entrepreneurial performance early warning management system refers to the effect of observing the increase or decrease of input or output variables on the efficiency level.

As shown in Figure 6, through sensitivity analysis, it is possible to explore the impact of different input and output variables on the economic performance and efficiency of decision-making units and find the focus of future performance management of different decision-making units. As shown in Table 6, conduct a sensitivity analysis of entrepreneurial projects to determine the reasons that affect entrepreneurial performance.

As shown in Figure 7, the four indicators "asset liability ratio," "return on net assets," "contributed gross profit growth rate," and "current assets turnover rate" have the most obvious impact on the original efficiency after extraction.

As shown in Table 7, the strength of competitive sports in a region is affected by various factors such as the level of local economic development, natural environment, population, and policies. Economic conditions are necessary material economic guarantees, which directly restrict the scale, speed, and level of sports.

As shown in Figure 8, the overall strength of competitive sports presents a gradual decline in the three major areas of east, middle, and west. The reason is that the western region has problems such as weak competitive sports foundation, relatively backward economy, and lack of talents, while the eastern region has strong economic strength and superior geographical location, which is not only developing the investment of funds, the promotion of public participation awareness, and the creation of the sports environment have an advantage.

As shown in Table 8, changes in "return on net assets" and "gross contribution growth rate" higher than 1.3 and 1.7 are the most important factors affecting the performance of sports entrepreneurs.

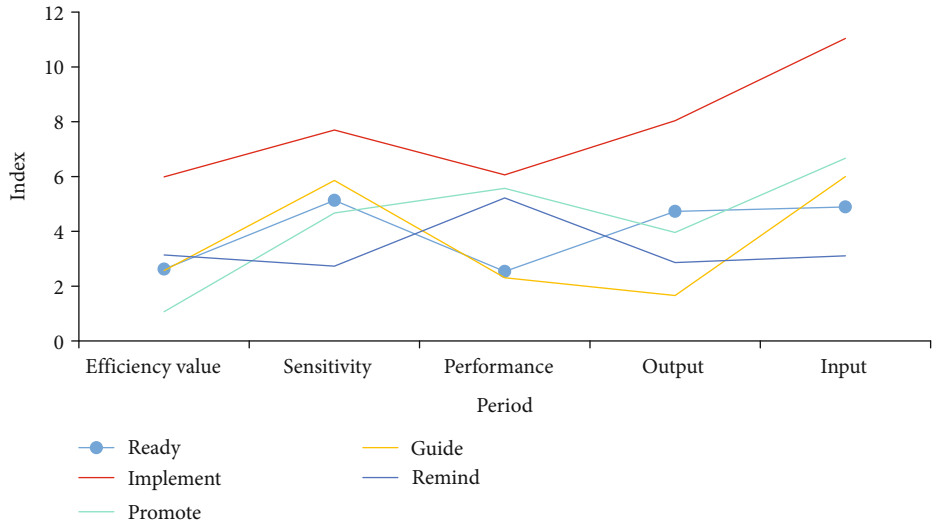

Figure 12: Management of entrepreneurial projects.

4.1.2. Different Dimensions of Simulation Model of Wireless Sensor Network Entrepreneurship Performance Early Warning Management System Based on Wireless Sensor. The effectiveness of early warning depends on the adaptive coordination process of each decision-making link. The final effect of targeted early warning is to continuously improve learning ability. Otherwise, the technical level needs to be improved. The goal makes up for the lack of learning ability and forms an adaptive coordination process from early warning control strategy to early warning decision.

As shown in Figure 9, starting from the wireless sensor network, use sports performance analysis methods to explore the temporal and spatial distribution characteristics of competitive sports strength and to explore the spatial and temporal changes of competitive sports strength, but there are still shortcomings, such as insufficient analysis of the influencing factors that produce these changes, and further exploring the process mechanism of the temporal and spatial changes of competitive sports strength and in-depth study of the effect of sports development are also the focus of future research.

As shown in Table 9, the AHP method is used to calculate the 4-dimensional weight value of value, development, efficiency, and service and combine it with the evaluation standard value of each attribute to obtain a weighted matrix of evaluation values. Summarize the evaluation values to obtain the annual comprehensive evaluation results of the entrepreneurial activity results of each entrepreneurial project.

As shown in Figure 10, the value dimension and development dimension have a greater impact on the comprehensive evaluation of sports entrepreneurship performance. They fluctuate in the range of 15 and 20, respectively. This indicates that efficiency and service are working well, but their value is low and development is also important for the overall performance. The rating has a serious impact.

As shown in Table 10, under the promotion of the national fitness strategy, the structure of mass consumption has been upgraded, and the relationship between scientific and technological elements and the sports industry has become closer.

Table 12: Exchange of information between each other.

Item	Ready	Implement	Promote	Guide	Remind
Efficiency value	2.62	3.37	1.07	2.57	3.14
Sensitivity	5.13	2.57	4.67	5.86	2.73
Performance	2.54	3.52	5.57	2.31	5.22
Output	4.73	3.31	3.96	1.66	2.86
Input	4.89	6.15	6.67	6	3.11

As shown in Figure 11, while ensuring stable development, adding value, and efficiency, it is necessary to pay more attention to development and services, compare short-board indicators, and modify plans and implementation plans.

As shown in Table 11, this is reflected in the enhancement of the equipment R&D and manufacturing capabilities of the sports goods manufacturing industry and the more intelligent sports venues in the sports competition performance industry. The extensive use of wearable devices in the leisure industry has promoted the deep integration of technology and the sports industry.

As shown in Figure 12, the management of entrepreneurial projects is complex and diverse. Comprehensive operational performance monitoring includes multitopic, multilevel, and multidimensional comprehensive monitoring. Internal and external environments and factors are intertwined. As shown in Table 12, there is an extensive exchange of information between each other, and the monitoring process covers a wide range and cycle.

As shown in Figure 13, the results of the competitive strength evaluation show the average level of the development of competitive sports. In order to further clarify the evolution of the difference in antisports strength, the absolute difference and relative difference are used to measure

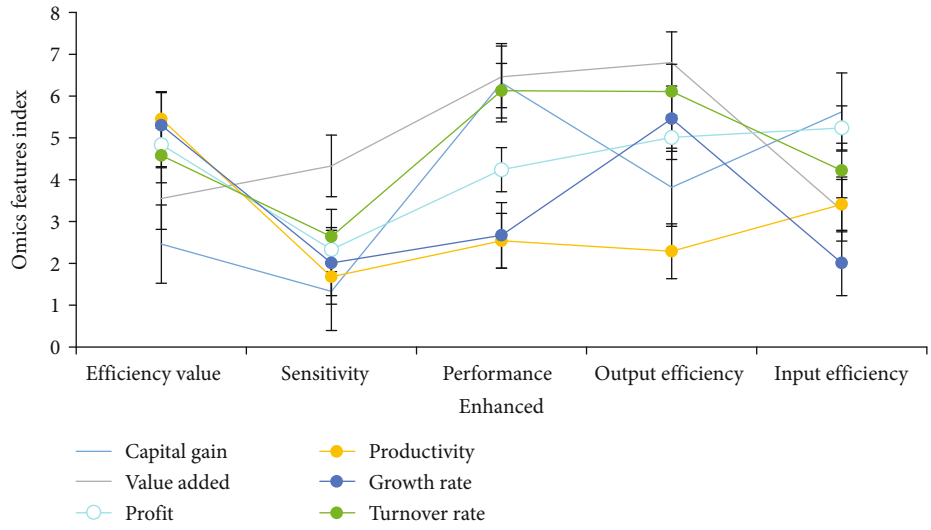

Figure 13: Results of the competitive strength evaluation.

Table 13: Simulation model of the wireless sensor network.

Item	Capital gain	Profit	Value added	Productivity	Growth rate	Turnover rate
Efficiency value	2.46	4.84	3.55	5.45	5.3	4.58
Sensitivity	1.33	2.33	4.33	1.68	2.01	2.64
Performance	6.32	4.24	6.46	2.54	2.67	6.13
Output efficiency	3.82	5.01	6.8	2.29	5.46	6.11
Input efficiency	5.62	5.24	3.27	3.41	2.01	4.22

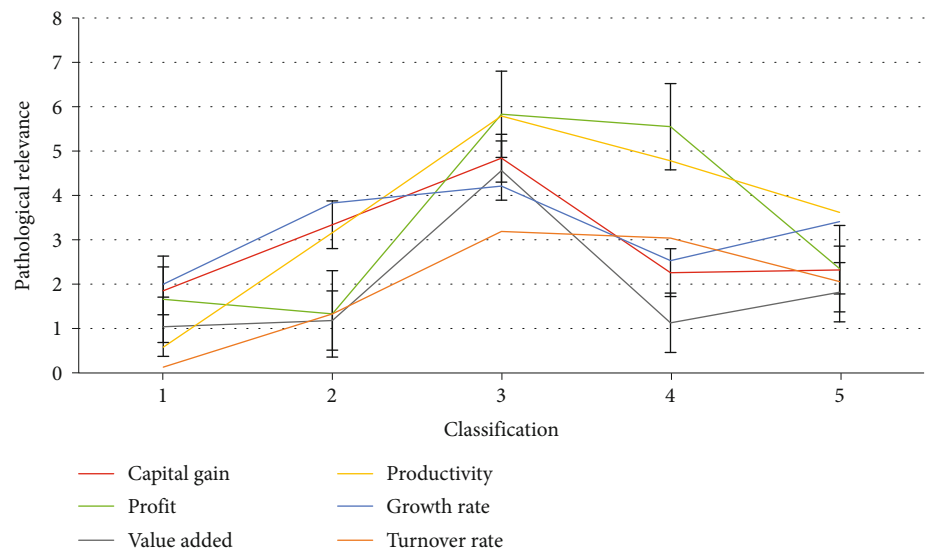

Figure 14: Changes in entrepreneurial performance.

and calculate the range and the coefficient of variation of the competitive sports strength of each province each year.

As shown in Table 13, the amount of data is large and the information changes rapidly. Without strong, up-to-date information technology support, performance monitoring is scientifically feasible, time-consuming, and efficient. The simulation model of the wireless sensor network entrepreneurship performance early warning management system can comprehensively monitor and comprehensively analyze and promote performance and issue alerts in time to improve the business performance of entrepreneurial performance.

As shown in Figure 14, after applying the simulation model of the wireless sensor network entrepreneurship

Table 14: Integration of the sports industry.

Item	Capital gain	Profit	Value added	Productivity	Growth rate	Turnover rate
1	1.85	1.66	1.04	0.58	2	0.13
2	3.34	1.33	1.18	3.16	3.83	1.33
3	4.84	5.83	4.56	5.79	4.21	3.19
4	2.26	5.55	1.13	4.78	2.53	3.04
5	2.32	2.35	1.82	3.62	3.41	2.06

performance early warning management system, the entrepreneurial performance of entrepreneurial projects continued to rise quarterly. By the fourth quarter, the product growth rate, labor productivity, and net asset income all reached 20% increase, while the turnover rate is maintained in the range of 20%-25%.

As shown in Table 14, to improve the modern sports industry system, build a fitness and leisure industry and competition performance industry as the core, radiate to drive the development of stadium services, sports training, and education, and enhance the core competitiveness of the sports industry, by deepening the supply-side structural reform of the sports industry and improving sports quality of industrial supply, the integration of the sports industry into economic and social development, and the continuous play of the active role of the sports industry in economic growth in accordance with the requirements of high-quality development.

5. Conclusions

(1) The research background of this article is that as entrepreneurship has become the choice of many young people today, many sports entrepreneurs have joined them, but the entrepreneurial performance of sports entrepreneurs cannot be effectively guaranteed, so the design of the simulation model of the entrepreneurial performance early warning management system work is imminent. The Internet based on wireless sensor provides an important guarantee for model design. Therefore, it is necessary to study the simulation model of the wireless sensor network entrepreneurship performance early warning management system based on wireless sensor

(2) The purpose of this article is to start with the research on the simulation model of the wireless sensor network entrepreneurship performance early warning management system based on wireless sensor, select entrepreneurs from a sports university in our city as the analysis object, and establish the wireless sensor network entrepreneurship performance early warning management system simulation model. Then, the value dimension, development dimension, service dimension, and efficiency dimension are compared vertically, and the efficiency value and sensitivity are horizontally compared in several groups of entrepreneurial projects. The results show that the value dimension and development dimension have an impact on the comprehensive evaluation of sports entrepreneurship performance large, fluctuating in the 15 and 20 intervals, respectively

(3) Experimental data shows that after applying the simulation model of the wireless sensor network entrepreneurship performance early warning management system, the entrepreneurial performance of entrepreneurial projects has continued to rise quarterly. By the fourth quarter, product growth rates, labor productivity, and net asset income have all increased. The increase is about 20%, and the turnover rate is maintained in the range of 20%-25%. This shows that the construction of a simulation model of the wireless sensor network entrepreneurship performance early warning management system has practical guiding significance for the comprehensive performance improvement and value creation of sports entrepreneurship operations

Data Availability

No data were used to support this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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