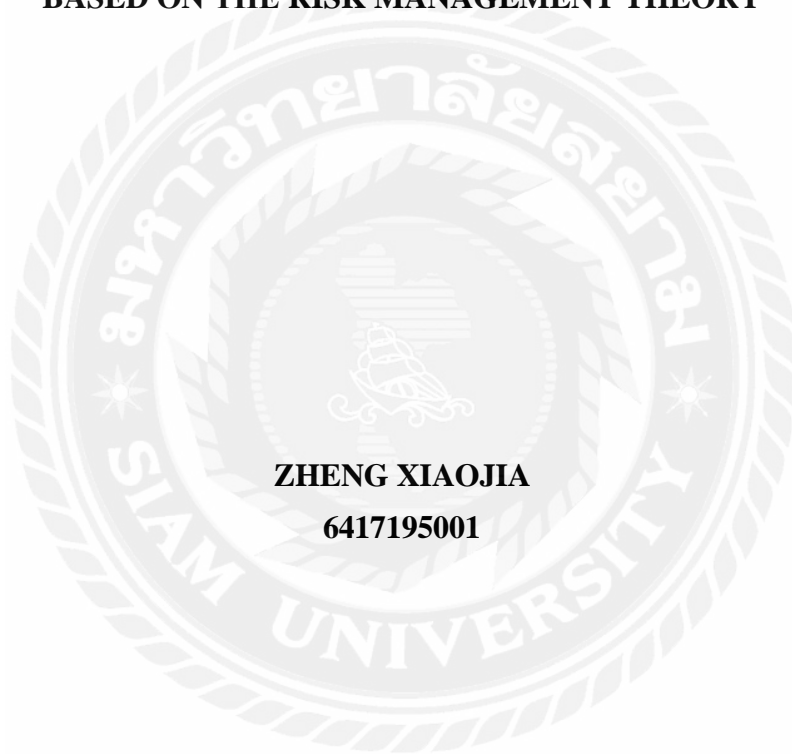




**RESEARCH OF THE FINANCIAL RISK EVALUATION MODEL  
BASED ON THE RISK MANAGEMENT THEORY**



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**6417195001**

**INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE MASTER'S DEGREE OF BUSINESS  
ADMINISTRATION GRADUATE SCHOOL OF BUSINESS  
SIAM UNIVERSITY**

**2022**



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**Thematic Certificate**

**To**

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This Independent Study has been Approved as a Partial Fulfillment of the Requirement  
of International Master of Business Administration in International  
Business Management

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Date: 06 / Jun / 2023

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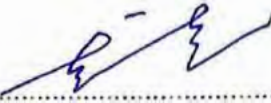
**Title:** Research of the Financial Risk Evaluation Model Based on the Risk Management Theory

**By:** Zheng XiaoJia

**Degree:** Master of Business Administration

**Major:** International Business Management

**Advisor:**



(Dr. Zhang Li)

06 / Jun / 2023

### ABSTRACT

The objective of this study explored the indicator that used fuzzy analysis to answer management policy. The scope of the study is in China in fifteen real estate enterprises. The research approach is quantitative methodology with secondary data analysis. The study was formulated by the fuzzy analytic hierarchy process to find the structural risk on firms and to optimize the evaluation of the risk system. In this study, the risk assessment of financial were clearly defined, and its key evaluate index for investment risk, operation risk, capital operation, and market risk, including the irrational index classification and design defects. The budget rate on structural business was determines and showed smaller firms can storage the risk in business construct. This study established a comprehensive risk evaluation system by using fuzzy analysis. Based on the formulation system, and compared to the percentage among companies. The ranking results support the result for diversified financial investment and the future in real estate economic will grow through investors. In particular, the study provides its factors and hierarchy and compares the risks on the company size, so, as to assist investors in identifying a sustainable future business.

**Keywords:** risk management theory, financial risk assessment, fuzzy analytic hierarchy process

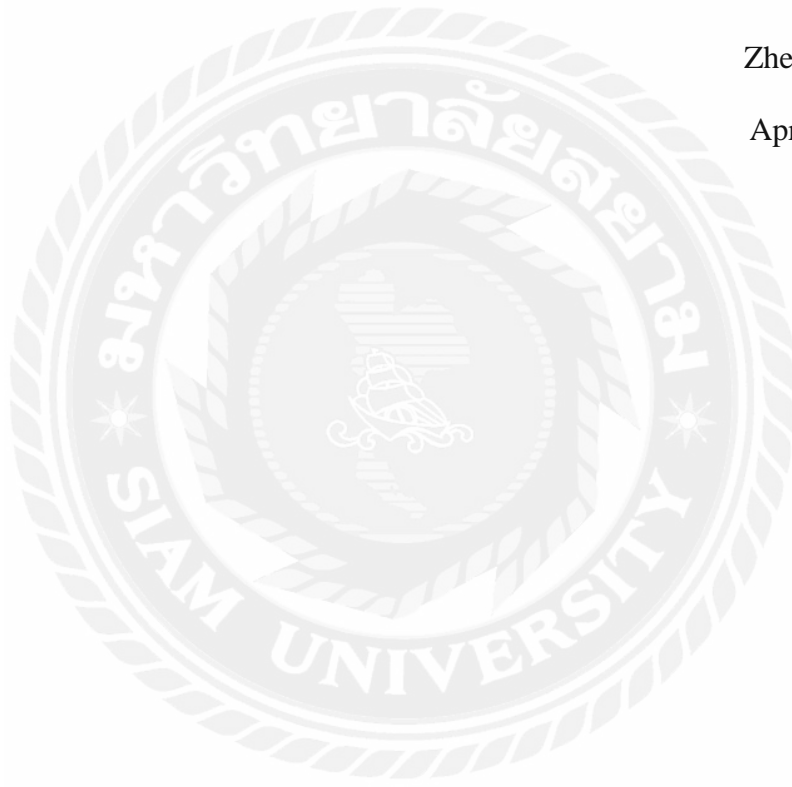


## ACKNOWLEDGEMENT

In this section, I would like to express my gratitude to Dr. Zhang Li, advisor and Dr. Jomphong Mongkhonvanit, Dean, Graduate School of Business, Siam University, Bangkok, Thailand for their thoughtful and caring supervision by means of his educational excellence. I am most grateful to them especially for their deep understanding of the Independent Study and his good communication skills.

Zheng XiaoJia

April 18, 2023



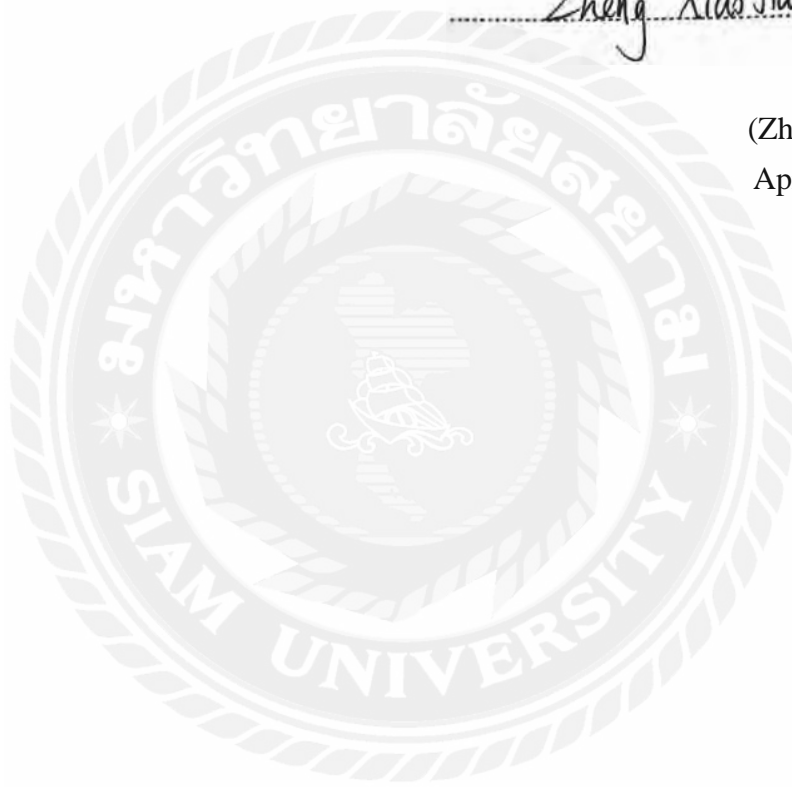
## Declaration

*I, Zheng XiaoJia, hereby certify that the work embodied in this independent study entitled “Research on Financial Risk Evaluation Model Based on Risk Management Theor” is result of original research and has not been submitted for a higher degree to any other university or institution.*

Zheng XiaoJia

(Zheng XiaoJia)

April 18, 2023



# CONTENTS

ABSTRACT.....	I
ACKNOWLEDGEMENT .....	II
DECLARATION .....	III
TABLE CONTENTS .....	V
1. Introduction .....	1
1.1 Research Background .....	1
1.2 Research Problems .....	2
1.3 Objectives of the study .....	2
1.4 Scope of the study .....	2
1.5 Research Significance .....	3
2. Literature Review .....	4
2.1 Risk Management Theory .....	4
2.2 Financial Risk Assessment .....	4
2.3 Fuzzy Analytic Hierarchy Process .....	5
3. Research Methodology .....	7
3.1 Identification of influencing factors .....	7
3.2 Risk Assessment .....	8
4. Findings and Conclusion .....	13
5. Recommendations. ....	15
References .....	16

## TABLE CONTENTS

Table 3.1 Financial risk evaluation indicators .....	8
Table 3.2 Financial risk evaluation results .....	9
Table 3.3 Single factor evaluation index of financial risk evaluation .....	10



# 1. Introduction

## 1.1 Research Background

In the 1990s, the risk management theory was first proposed in the United States. With the continuous development of the economy, scientific theories are constantly enriched, and risk management theories are further improved. The economic action of a firm focus on financial risks that are unavoidable. The cause manages and prevention of financial troubles. The suitable chances are support for companies to activate high returns. Therefore, it can be said that the enterprise's financial risk has apparent two obvious sides. The increased financial risk may affect the company's financial crisis and even bring to the overrated of the firm capital chain. How to analyze the performance and cause of enterprise financial risk scientifically and systematically is the key to controlling and preventing enterprise financial risk.

As the primary carrier of market operation, the enterprise is an integral part of the national economy. As the production and operation environment of enterprises becomes more complex, they are faced with increasing uncertainties and risks (Sun & Wang, 2021). The risks faced by enterprises in the process of production and operation will not only impact the enterprises themselves but also have a significant impact on the government and industry of a country through the inter-departmental transmission channels. Financial risks are faced all the time in the whole process of operation, which will threaten the survival and development of enterprises (Chen, 2022). Because of its more diversified and harmful financial risks, higher requirements are also put forward for studying enterprise financial risk early warning. In order to reduce the enterprise's financial risk, based on the risk management theory, through constantly screening various indicators that can better reflect the enterprise's financial risk, the fuzzy AHP is adopted to build the financial risk index system and the early warning model with a better fitting degree and higher prediction accuracy, to identify and evaluate the factors affecting the enterprise's risk. The results show that the financial risk of the real estate investment industry is medium to large. If it exists in this situation for a long time, it will bring significant threats to the finances of the enterprise and even affect the operation of the whole industry. We should strengthen enterprise risk management and deepen the ability to identify and forecast enterprise's financial risk.

The financial risk evaluation model has been an evolution in each time. It cannot effectively meet the needs of enterprise financial risk analysis. Financial risk evaluation mainly adopts a univariate model to conduct a comprehensive research of enterprise financial ratios. This method can reflect insufficient information and is prone to one-sided assessment. If the multivariate linear evaluation model is adopted, the growth ability of the enterprise is not considered, and the condition is assumed that



the variables obey the multivariate normal distribution, and the correlation problem between variables is not solved.

Therefore, it is helpful to analyze and evaluation of the risks in the diversified financing of real estate companies for the sustainable development of business in China, and the guarantee of the safety of investors' assets, and extraordinary stress needs to be laid on the solving of the problem. Through the study of financial risk management, this paper explores the key influencing factors of financial risk assessment. It evaluates and compares their risks on fuzzy method, thereby assisting investors in deciding decisions the chances of diversified financial risk assessment and making the optimal choice for investors.

## **1.2 Research Problems**

At present, there are few researches and practices on the financial risk evaluation system of enterprises, and the financial risk evaluation of enterprises lacks a solid theoretical basis, which has the following problems:

1. The Application of Fuzzy Logic in Financial Risk Management of Chinese Real Estate Enterprises.
2. Indicated the formula by using involved variables.
3. The necessity of using risk management to explain risk assessment systems.

## **1.3 Objectives of the study**

1. Get the appropriate financial risk evaluation model through the judgment of fuzzy hierarchy comprehensive evaluation analysis method.
2. Screen out useful indicators for financial risk assessment.
3. Calculate the risk value of enterprises in the real estate investment industry and the weight of financial indicators through the financial risk evaluation model, determine whether there is financial risk in the industry, calculate the degree of risk, which indicators are mainly evaluating the financial risk and the weight of these indicators.

## **1.4 Scope of the Study**

1. Identification of factors affecting financial risks: various economic indicators in the balance sheet, cash flow statement, income statement, notes to financial information, and word of changes in owners' equity (or changes level in shareholders' equity).

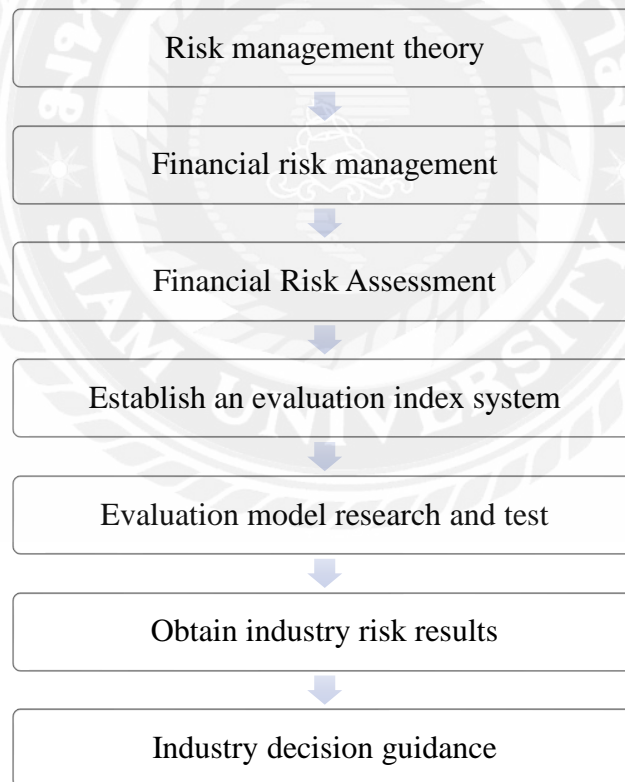
2. Industry samples for running the model: The average financial data of the evaluation indicators corresponding to the annual financial reports of 15 enterprises in

China's real estate investment industry in 2020 and 2021 are used as industry samples for this study.

## 1.5 Research Significance

Enterprises are the primary carrier of market operation and an essential part of the national economy. The risks faced by enterprises in the process of production and function will not only impact the enterprise sector itself but also have a considerable impact on the government and households of a country through inter-departmental transmission channels. Therefore, the research on enterprise risk is of great significance to the economic development and stability of a nation. Financial risk is one of the most prominent and most influential risks enterprises face in production and management. An effective risk assessment model is helpful for enterprises to adjust their decisions in production and management, reduce financial risks and ensure sustainable development of enterprises.

Theoretical framework



The theoretical framework explained the process of utilizing risk management that applied to financial issues. This research has to survey the option of evaluating by using fuzzy logic to explain the phenomenon from an industrial. Although, the study is just the primary concept to find out the solution in possibly way from formula to utilize before giving information to the industry make a decision.

## **2. Literature Review**

### **2.1 Risk Management Theory**

Risk management theory refers to minimizing the adverse impact when an enterprise faces risks (Zhang & Zhou, 2014). A relatively complete risk management theory mainly includes five aspects: risk planning, identification, evaluation, response, and monitoring. Its core content is risk assessment, and accurate risk assessment cannot be separated from selecting risk factors. Risk factors are the possibility of guiding the occurrence or change of risks and the potential causes of risk accidents (Lu, 2020). There are two characteristics of risks (external and internal). Internal risks can be categorized as organizational risks. The external risks can be generated as market risks and supplier risks. Operational risks differ from other risks as they deal with established processes rather than managing unknown circumstances. It can be defined as the risks associated with losses that may result from inefficiencies or non-conformances within the operational process of an organization, including quality, cost, production, schedule, and workforce. Technology risks deal with the internal technology level, such as skills to handle technology and learning abilities of project team members, and external technology, such as technology changes. Organizational risks are related to the organization's management system and strategy (Park, 2010).

Patel, Haupt, and Bhatt, (2020) define risk management in the field as specific to many risks factors. The evaluation has a significantly affects on essential outcome measures which manage or protect the risks in the project and export to external parties. Risk is relevant to physical, financial, and social characteristics, and the evolution of probability. Risk management is always started with association risk.

### **2.2 Financial Risk Assessment**

Financial risk means that during various economic activities, due to the influence of different factors that can't forecast or control, the economic situation is uncertain, and the firm has the possibility of suffering losses (here refers to the pure risk). Financial risk evaluates involve accountant issues, income statements, and cash flow statements. It has to analyze the changing trend of the firm's financial situation and the relationship between assets, liabilities, and income, from the accounting information of financial statements to digging into the enterprise's internal financial relationship.

Risk management has to apply the capability of budget and implement the program cost-effective. It allows budgeting and allows management to examine financial plans in-depth for both the overall state of the economy and the economic interrelationships among all construction companies and agencies. Budget planning certifies the companies' ability to prepare critical resources on time and in quantity to

assist in the accomplishment of expected actions and the fulfillment of planned purposive (Omosidi, Oguntunde, Oluwalola, and Ajao, 2019).

The financial issue is positively related to individual participants in the financial markets. The awareness and basic knowledge involved financial could support the investors' decision-making concept. However, the investor risk behavior is the investment behavior construct, their trades are differently from the others which the individual decision. Financial literacy supports investor involvement in the stock market. It plays a pivotal role between personality traits and stock market participation. Over time research explains and demands the upcoming directions related to emotions, personality, and financial literacy. Financial literacy helps investors to minimize the entry barriers for financial products. Individuals with a higher level of financial literacy can actively participate in financial markets. It is positively associated with stock market participation and is negatively associated with an informal way of borrowing (Akhtar, and Malik, 2022).

### **2.3 Fuzzy Analytic Hierarchy Process**

FAHP Evaluation method is a kind of Fuzzy Comprehensive Evaluation (FCE), and Analytic Hierarchy Process (AHP) combined evaluation method in system evaluation, efficiency evaluation, and System optimization, has a wide range of applications. Generally, AHP is applied for the primary variables, and then the fuzzy evaluation effect is used for a clearly understanding evaluation in fuzzy analysis. Can & Toktas (2021) used fuzzy logic to the advantage of fuzzy set theory in engineering concepts. They explained that risk appraisal has a fuzzy perspective because it coping linguistic parameters. It can translate as the level of the workforce and tasks by improving an expert system reference on fuzzy logic—the relation of personal and organizational constructs realizing working conditions and environments for a an undefined model.

The process of risk assessment from Saaty (2008) with fuzzy AHP can be discussed as four steps: (1) Build the project and determine the sought knowledge to follow the project objectives; (2) Create the decision hierarchy as a structure for the individual alternatives aspects; (3) the method involved with variable sets of matrices and comport pairwise comparison and (4) Use the priorities gained to weigh the significances in the hierarchy with their relevant positions.

Probability models have been made in uncertain circumstances with reasonable ideas. The decision situations are required to the standard of re-defined constructs and inaccurate data. The theory of Fuzzy set is a modest and potentially valuable choice. The fuzzy random constructs are difficult to predict to model systems (Dincer, 2019).

The conventional AHP process may not replicate a human perception design. The decision-makers often give confidence in providing their judgments through individual numeric assessment. The result of fuzzy AHP can support extents to solve alternative problems. (Reza Sadeghi, Mohammad Moghimi, and Ramezan, 2013). The ambiguous can support the decision system to fulfill the escape of investors with rational choice.



### **3. Research Methodology**

This paper adopts a quantitative research method and uses fuzzy AHP to study the financial risk evaluation model. In a fuzzy set theory, the main objective of the membership function is the translation of real-world values to undefined values. A trapezoid membership function is used. This represents a trapezoid curve as a function of vector  $x$  and depends on four scalar parameters  $r_1$ ,  $r_2$ ,  $r_3$ , and  $r_4$ . The parameters for the input membership function of probability and impact have been mentioned with range. Also, the output membership function of risk will show with range.

The concept of Jain, Walia, and Gupta (2020) explained the, a fuzzy set present idea of parting from the conceptual framework that is similar in many dimensions of the model structure used in the case of usually normal sets of undefined. The typical pattern characteristic and information processing realized that a realistic setting consistent with an ambiguous situation. This expands AHP to the vague location, which can overcome the deficiency of AHP. The fuzzy set theory involves to aspect of fuzzy numbers. The differences in fuzzy numbers are markedly designated.

#### **3.1 Identification of influencing factors**

The selection of a financial index has excellent greatly influences on the accuracy of enterprise financial risk evaluation. At present, there is no unified index system for risk assessment. Based on the principles of practicality, comprehensiveness, and feasibility, and based on the relevant financial risk evaluation of various countries, the factors affecting the financial risk of enterprises are summarized (Li, 2008), and 11 second-level indicators and four first-level indicators are mainly selected to form the index system of financial risk evaluation.

Regarding investment risk, operating profit rate and earnings per share are selected as two indicators. The operating profit rate is a standard index to measure enterprise risk. Investors will choose earnings per share to judge the profitability of the enterprise and its potential growth ability and then make decisions as one of the essential financial indicators. Regarding operating conditions, we choose three indicators: accounts receivable turnover rate, working capital turnover rate, and inventory turnover rate. In the total assets of an enterprise, accounts receivable account for a relatively high turnover rate can well reflect the business status of the enterprise. The turnover rate of working capital refers to the amount of turnover and the speed of capital flow completed by an enterprise in a certain period, which can reasonably measure the operating condition of an enterprise. The inventory turnover ratio is mainly used to reflect the turnover speed of enterprise inventory. Whether the proportion of industry inventory in the capital ratio is reasonable is an essential

supplement to the working capital. In terms of capital operation, three indexes of cash flow return rate, total asset turnover rate, and capital accumulation rate are selected.

Return on cash flow is mainly used to measure the relationship between initial cash investment and annual cash income. The turnover rate of total assets, the stronger the enterprise sales ability, the better the asset benefit. The capital accumulation rate is used to describe the capital accumulation ability of an enterprise, mainly used to evaluate the development potential of other aspects. Regarding market risk, we choose three indexes: macro-control risk, land purchase, and brand advantage. Among them, macro-control risk and brand advantage are common indicators to measure enterprise market risk. Land purchases can well reflect whether an enterprise can reinvest. The details are shown in Table 3.1.

**Table 3.1 Financial risk evaluation indicators**

First-level indicators	Second-level indicators
Investment risk ( $A_1$ )	Operating profit margin ( $A_{11}$ )
	Earnings per share in equity ( $A_{12}$ )
Operating Status ( $A_2$ )	Accounts receivable turnover ( $A_{21}$ )
	Working capital turnover ( $A_{22}$ )
	Inventory turnover ( $A_{23}$ )
Capital operation ( $A_3$ )	Return on cash flow ( $A_{31}$ )
	Total asset turnover ( $A_{32}$ )
	Capital accumulation rate ( $A_{33}$ )
Market risk ( $A_4$ )	Macro-control risk ( $A_{41}$ )
	Land purchase volume ( $A_{42}$ )
	Brand Advantage ( $A_{43}$ )

### 3.2 Risk Assessment

In the process of financial risk evaluation, the enterprise has complexity, the environment also has variability, and the risk has specific fuzzy characteristics. Therefore, the undefined hierarchical analysis method is introduced to analyze, model, and evaluate the financial risk. Through a questionnaire survey of 12 experts and scholars in this field, the enterprise risk evaluation index system is compared and analyzed, and the judgment matrix M is obtained by taking its average value, as shown in Table 3.2.

**Table 3.2 Financial risk evaluation results**

Name of Matrix	Content of matrix				
$A - A_i$	$A_i$	$A_1$	$A_2$	$A_3$	$A_4$
	$A_1$	1	3	6	4
	$A_2$	1/3	1	3	2
	$A_3$	1/6	1/3	1	2
	$A_4$	1/4	1/2	1/2	1
$A_1 - A_{1i}$	$A_1$	$A_{11}$	$A_{12}$		
	$A_{11}$	1	3		
	$A_{12}$	1/3	1		
$A_2 - A_{2i}$	$A_2$	$A_{21}$	$A_{22}$	$A_{23}$	
	$A_{21}$	1	5	7	
	$A_{22}$	1/5	1	3	
	$A_{23}$	1/7	1/3	1	
$A_3 - A_{3i}$	$A_3$	$A_{31}$	$A_{32}$	$A_{33}$	
	$A_{31}$	1	4	6	
	$A_{32}$	1/4	1	3	
	$A_{33}$	1/6	1/3	1	
$A_4 - A_{4i}$	$A_4$	$A_{41}$	$A_{42}$	$A_{43}$	
	$A_{41}$	1	4	5	
	$A_{42}$	1/4	1	3	
	$A_{43}$	1/5	1/3	1	

The judgment matrix in Table 3.2 is solved for the maximum eigenvector value, and the weight of the corresponding judgment matrix is as follows:

The weight  $A - A_i$  is

$$B = (b_1, b_2, b_3, b_4) = (0.5577, 0.2288, 0.1154, 0.0981), \lambda_{\max} = 4.1756;$$

The weight  $A_1 - A_{1i}$  is

$$B_1 = (b_{11}, b_{12}) = (0.7509, 0.2491), \lambda_{\max} = 1.9950;$$

The weight  $A_2 - A_{2i}$  is

$$B = (b_{21}, b_{22}, b_{23}) = (0.7316, 0.1883, 0.0801), \lambda_{\max} = 3.0537;$$



The weight  $A_3 - A_{3i}$  is

$$B = (b_{31}, b_{32}, b_{33}) = (0.6905, 0.2177, 0.0919), \lambda_{\max} = 3.0593;$$

The weight  $A_4 - A_{4i}$  is

$$B = (b_{41}, b_{42}, b_{43}) = (0.6741, 0.2255, 0.1004), \lambda_{\max} = 3.0833.$$

The calculated CR values in Table 3.2 are 0.0658, 0, 0.0516, 0.0571, and 0.0801, respectively, all of which are less than 0.1, satisfying the consistency of the judgment matrix.

To further on single-factor fuzzy evaluation, a dozen experts and scholars further evaluate the influence factors of selecting a system, the evaluation process, the selection of evaluation language sets

$$V = \{\text{high, significant, medium, small, minor}\} = \{5, 4, 3, 2, 1\}.$$

The evaluation results of experts were collected to obtain the single-factor evaluation set, as shown in Table 3.3.

**Table 3.3 Single factor evaluation index of financial risk evaluation**

Indicators	$A_{11}$	$A_{12}$	$A_{21}$	$A_{22}$	$A_{23}$	$A_{31}$	$A_{32}$	$A_{33}$	$A_{41}$	$A_{42}$	$A_{43}$
$V_1$	0	1	0	1	0	1	0	3	7	4	3
$V_2$	0	3	2	4	8	3	5	3	3	5	5
$V_3$	1	7	6	3	2	5	4	4	2	2	3
$V_4$	4	1	3	2	1	2	3	1	0	1	1
$V_5$	7	0	1	2	1	1	0	1	0	0	0

The fuzzy comprehensive evaluation matrix can be obtained from Table 3.3 as follows:

$$M_1 = \begin{bmatrix} 0.58 & 0.34 & 0.08 & 0 & 0 \\ 0 & 0.08 & 0.58 & 0.26 & 0.08 \end{bmatrix};$$

$$M_2 = \begin{bmatrix} 0.08 & 0.25 & 0.5 & 0.17 & 0 \\ 0.17 & 0.17 & 0.25 & 0.33 & 0.08 \\ 0.08 & 0.08 & 0.17 & 0.67 & 0 \end{bmatrix};$$

$$M_3 = \begin{bmatrix} 0.08 & 0.17 & 0.42 & 0.25 & 0.08 \\ 0 & 0.25 & 0.33 & 0.42 & 0 \\ 0.08 & 0.08 & 0.33 & 0.25 & 0.25 \end{bmatrix};$$

$$M_4 = \begin{bmatrix} 0 & 0 & 0.17 & 0.25 & 0.58 \\ 0 & 0.08 & 0.17 & 0.42 & 0.33 \\ 0 & 0.08 & 0.25 & 0.42 & 0.25 \end{bmatrix}.$$

The first-order fuzzy comprehensive evaluation obtained from the fuzzy complete evaluation matrix is:

$$R_1 = B_1 M_1 = [0.4355 \quad 0.2752 \quad 0.2046 \quad 0.0648 \quad 0.0199];$$

$$R_2 = B_2 M_2 = [0.0969 \quad 0.2213 \quad 0.4265 \quad 0.2402 \quad 0.0151];$$

$$R_3 = B_3 M_3 = [0.0626 \quad 0.1792 \quad 0.3922 \quad 0.2870 \quad 0.0782];$$

$$R_4 = B_4 M_4 = [0 \quad 0.0261 \quad 0.178 \quad 0.3054 \quad 0.4905].$$

The second-level fuzzy comprehensive evaluation can be further obtained as follows:

$$Z = BR = B \begin{pmatrix} R_1 \\ R_2 \\ R_3 \\ R_4 \end{pmatrix} = [0.2723 \quad 0.2274 \quad 0.2744 \quad 0.1542 \quad 0.0717].$$

The comprehensive results show that the financial risks of enterprises are divided into 27.23%, 22.74%, 27.44%, 15.42%, and 7.17% of the subjects with high, significant, medium, small, and minor risks.

The final evaluation value of the whole is obtained as follows:

$$Q = ZV^T = [0.2723 \quad 0.2274 \quad 0.2744 \quad 0.1542 \quad 0.0717] \begin{bmatrix} 5 \\ 4 \\ 3 \\ 2 \\ 1 \end{bmatrix} = 3.4741.$$

The result related to Table 3.2 utilized the percentage of financial risk for enterprises size. The study demonstrated the financial from each title, i.e., investment

risk, operation status, capital operation, and market risk. All the issues could happen in organizations. The smaller size a possibility can avoid the risk. The higher percentage is in the large enterprise because many factors can affect the organization, excluding the external environment. The number 3 table presents the set of numbers that are closely to high awareness in medium size earnings per share in equity ( $A_{12}$ ).



## 4. Findings and Conclusion

On the relevant literature of financial risk evaluation, summarize the factors affecting the financial risk of enterprises, and select the universally recognized economic evaluation indicators, including four first-level indicators, including investment risk, business status, capital operation, market risk, and 11 subordinate second-level indicators.

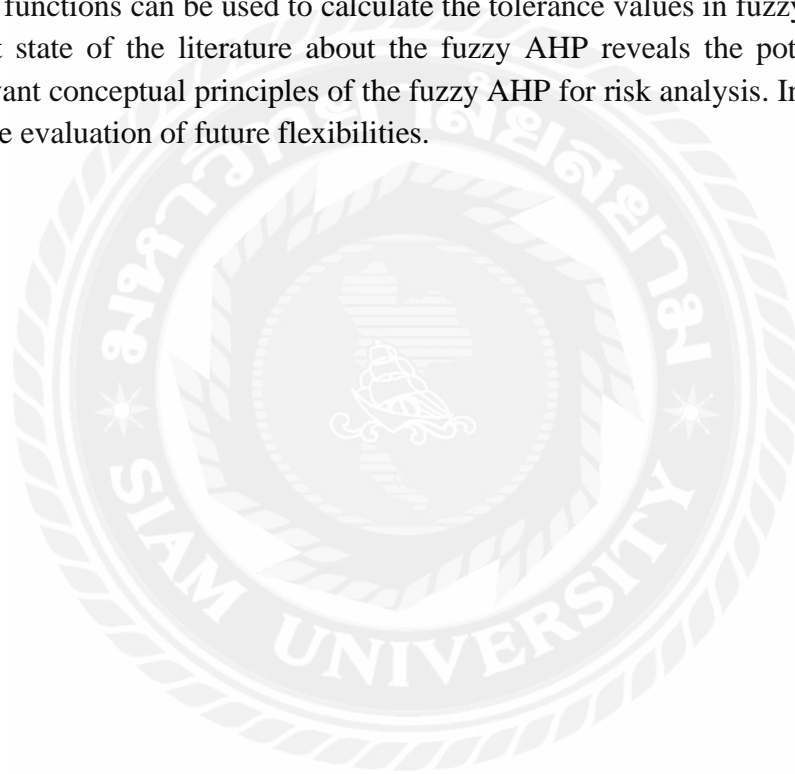
The financial index evaluation system determined this time has passed the judgment matrix consistency test of the fuzzy hierarchy comprehensive analysis method. Its results are all less than 0.1, indicating that it is reasonable and practical, and an effective financial risk evaluation model has been established for the real estate investment industry.

The fuzzy hierarchical analysis method is adopted to analyze the financial risk of enterprises. It is found that the membership degree of the financial risk of enterprises in the real estate investment industry for the high, significant, medium, small, and minor risks is 27.23%, 22.74%, 27.44%, 15.42%, and 7.17%, respectively, and the final risk evaluation value is 3.47. It indicates that the financial risk of enterprises in the above industries is medium to large. Among them, the importance of investment risk is 55.77%, the importance of business status is 22.88%, the importance of capital operation is 11.54%, and the importance of market risk is 9.81%.

The case study presents a systematic approach to risk identification, assessment, and prioritization. The study provides directions for the practical review of risks assessment process within the financial risk of enterprises in the real estate investment industry network. The fuzzy rule-based FMEA represents a practical methodology for improving the process quality and reliability by prioritizing the failure problems throughout the process. It demonstrates how results could provide a comprehensive understanding of the failure modes in financing processes. The assessment clearly shows that the focus of the the riskmanagement concept is to find the answer to every risk that is possible to happen (investment risk, operation risk, capital operation, and market risk). This may involve risking assessment and financial process. It is evident that detecting the non-conforming directing in the concept design or investment stage is vital for avoiding safety and security risks involved before it flows downstream the business cycle. The study shows the need to focus on processes and their associated risks. The related work from Ghadge, Fang, Dani, and Antony (2017) claimed that need for ensure quality performance in the global supply chain network. The fuzzy logic provides accurate and transparent insights into impending failures involved in the process design. The research shows that the approach presented in this paper can be used for identifying process quality risks within complex networks. The fuzzy logic-

based system allows using linguistic variables developed based on expert knowledge and experience.

The fuzzy AHP technique is a more versatile way of providing for uncertainties within the risk analysis framework. It also can reliably include more project variables, especially those without explicit numerical representation. This study confirms that the fuzzy AHP technique is pragmatic and easy to follow, and it can easily be used in a financial state. This study also found that the fuzzy AHP provides an enhancement of reasoning and making rational decisions in investment forecasts and incomplete information. This study also confirms that the fuzzy AHP has fewer axiomatic limitations than several other hybrid fuzzy techniques, as different probability distribution functions can be used to calculate the tolerance values in fuzzy estimations. The current state of the literature about the fuzzy AHP reveals the potential of the highly relevant conceptual principles of the fuzzy AHP for risk analysis. In this chapter, the objective evaluation of future flexibilities.



## 5. Recommendations

Based on the risk management theory, the financial risk evaluation index system is constructed, and the fuzzy comprehensive analytic hierarchy process is used to model the financial risk, which can make a reasonable evaluation of the economic situation and provide theoretical reference for enterprises to timely and accurately respond to the early financial warning. All walks of life should strengthen the application of financial risk assessment methods to facilitate managers to make reasonable judgments so that enterprises move from passive to active forecast risks, and crisis into safety.

Financial literature shows sufficient financial knowledge. This may induce neuroticism towards risky investments in people in the organization. An investor have an openness to experience personality traits and perceives new information with analytical abilities. The financial knowledge is necessary for the large size because the reason to prevent risk with innovative, adaptive, curious, and like new experiments. Due to their hunt for new things, financial literacy helps them to invest in risky assets as they are not afraid to explore new investment opportunities.

The discussion on analysis indicators cannot truly reflect the situation of enterprises. The current financial evaluation methods have irrational index classification and design defects, which cannot effectively meet the needs of enterprise financial risk analysis and easily cause distortion of financial information. The risk evaluation system lacks pertinence. The current implementation is a general financial risk assessment system, not combined with the characteristics of the industry to develop, resulting in the role of financial risk assessment system being difficult to give full play to the constraints of the financial risk system of risk prevention and risk prediction.

The fuzzy AHP process is applied to unreal situations in selecting the best position for investment. This is the amount of China competitors. Nevertheless, investors are more represented by different human resources, abilities, and technology. Therefore, an exceed of investor selection decisions must focus on finding the best enterprises which would most contribute to the well-being of the buyer company under risk limitation.

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