



Research on Financial Risk Assessment and Integration Strategies in Corporate Mergers and Acquisitions

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SUMMARY: *In the context of heightened globalization and competition, mergers and acquisitions (M&A) have become indispensable tools for organizations seeking growth and competitiveness. This research is focused on the evaluation of financial risks in mergers and acquisitions and seeks to construct a model for evaluating financial risks. Through the use of the improved Analytic Hierarchy Process (AHP), where each indicator will be evaluated by its corresponding value, financial risks in the M&A process of companies X and Y will be determined and financial integration strategies for M&A will be suggested. Results indicate that the stage of an industry's life cycle significantly influences M&A financial risks: - Companies in growth industries are primarily affected by financing risk (0.265) and integration risk (0.272). - Companies in mature industries face greater pricing risk (0.259) and debt repayment risk (0.288). - Companies in declining industries are most impacted by integration risk (0.418). During Company X's acquisition of Company Y, financial risk was assessed at a moderate level with a score of 2.57, indicating a 30% probability of moderate financial risk occurrence. Acquiring companies should select appropriate financial integration strategies based on their own circumstances and the characteristics of the target company to enhance corporate value and achieve M&A objectives.*

KEYWORDS: *corporate mergers and acquisitions; financial risk assessment; analytic hierarchy process; fuzzy comprehensive evaluation method; evaluation indicator system*

1 Introduction

With the continuous progress and development of China's economy, market competition has become increasingly fierce, leading to a gradual increase in investment and merger and acquisition (M&A) activities among many enterprises [1, 2]. Corporate investment and M&A have emerged as the most direct investment approach in recent years. Through horizontal, vertical, and mixed M&A, enterprises fully leverage existing resources within related companies and the current stock of societal resources. This enhances resource utilization efficiency and output efficiency, thereby achieving optimal resource allocation and resource sharing [3-6]. As a major strategic decision, corporate M&A involves resource integration, business synergy, and the re-planning of future development directions between two or more enterprises [7, 8]. Throughout the entire process, risk assessment in finance is vital [9]. First of all, for the acquiring party, proper risk assessment of the company helps in not overpaying for it since it can avoid the overestimation of the company's worth [10, 11]. Additionally, financial risk assessment assists the company in rational use of finances as well as proper funding and use of finances associated with mergers and acquisitions [12, 13]. Merger and acquisitions

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require considerable amount of money to cover the expenses of purchasing as well as integrate acquired businesses into the company's system. Insufficient funding may result in cash flow problems which affect the regular functioning of the business [14-16]. Moreover, proper risk assessment in financial terms will make the process of collaboration with the acquired company easier [17, 18].

Corporate mergers and acquisitions can be seen as an investment behavior that has inherent risks. Hence, following the merger and acquisition process, companies need to consolidate the strategies, people, and finances of the business being acquired [19, 20]. In such consolidation processes, financial consolidation becomes the most important aspect and plays a crucial role in determining the success of the merger and acquisition investments [21-23]. Failure of the acquiring company to sort out the financial problems of the company being acquired after the merger and acquisition process could lead to more costs, possibly creating financial problems and hindering proper payment methods. Financial problems would then make it difficult for the acquiring company to carry out M&A [24-27]. It is important therefore to sort out financial problems effectively, which become the key foundation for maximizing capital benefits and efficient resource utilization [28-30].

The impacts of risk due to pricing, finance, debt payment, and financial integration on the financial risks in mergers and acquisitions activities have been explored in this study. It constructs an indicator system to measure financial risk and through its combination with industry life cycle and using improved analytic hierarchy process approach, weightings have been calculated for financial risk evaluation indicators for mergers and acquisitions activities. Using the financial risk assessment during the merger of Company X and Company Y as a case study, combined with fuzzy comprehensive evaluation methods, it analyzes the financial risks encountered during Company X's acquisition of Company Y. Finally, a series of financial integration measures are proposed, including standardizing consolidated financial statements, intensifying asset-liability restructuring, unifying financial systems and processes, and strengthening financial risk management. These recommendations aim to provide valuable reference for corporate M&A activities.

2 Construction of a Financial Risk Assessment Model

2.1 Evaluation Indicator System

Financial risks faced by corporations during mergers and acquisitions can be classified into four types: pricing risk (X1), financing risk (X2), debt repayment risk (X3), and integration risk (X4).

Firstly, pricing risk refers to the danger of incurring losses by the acquiring corporation resulting from incorrect assessment of the value and profit of the target organization. Regardless of how effective the target corporation is, overvaluation can prevent it from realizing its profits from the deal. The main sources of such pricing risk can be attributed to two factors: financial statement risk of the target (X11) and valuation risk of the target (X12).

Secondly, financing risk during mergers and acquisitions includes the dangers related to the possibility of raising enough money and using it effectively after the completion of the operation. The financing risk can be divided into two subcategories of capital acquisition risk (X13) and capital carrying risk (X14).

Thirdly, debt repayment risk occurs because of the uncertainty in the future flow of income of the newly formed corporation. This may lead to financial difficulties with servicing the debt, resulting in capital structure problems and debt ratios increase. Short-term debt repayment risk (X15) and long-term debt repayment risk (X16) may be used to define the level of debt repayment risk.

Finally, integration risk is a danger associated with financial integration, which is crucial during M&A transactions. Not only does it determine whether the strategic goals of M&A will be met, but also affects the possibility of exercising influence on the target corporation. The level of scientific and rational financial integration may be analyzed in terms of three factors: profitability (X17), operational ability (X18), and developmental capability (X19).

In summary, the financial risk assessment indicator system for M&A enterprises is illustrated in Figure 1.

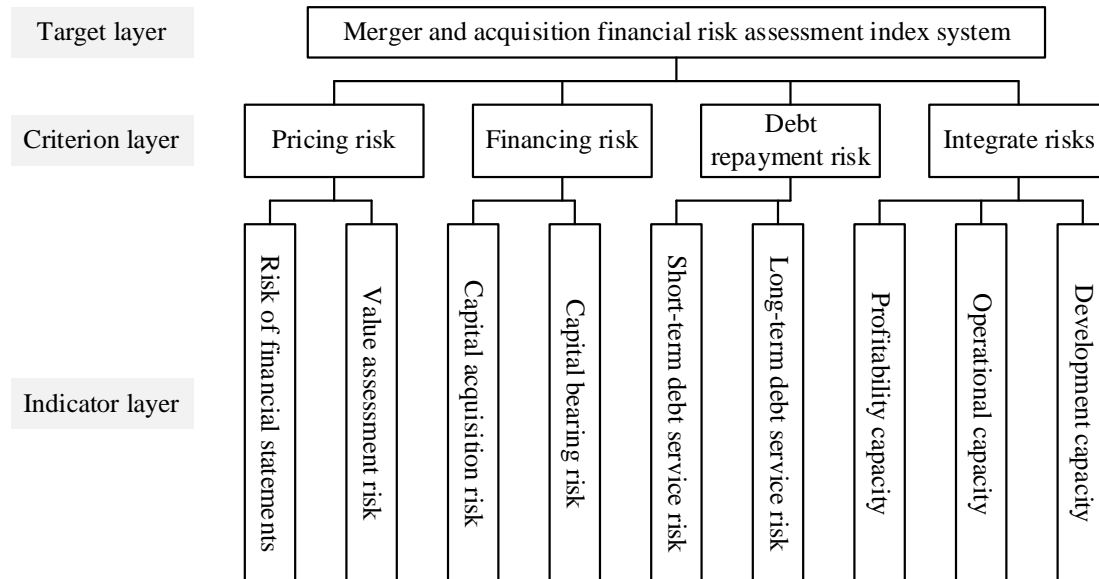


Figure 1: The financial risk assessment index system in M&A enterprises

2.2 Financial Risk Assessment Methods

2.2.1 AHP Evaluation Procedure

(1) Establishing a Hierarchical Structure Model

The hierarchical structure model consists of three parts: the top layer, the middle layer, and the bottom layer. The top layer represents the overall objective of the decision-making problem, the middle layer comprises sub-objective factors at each level, and the bottom layer contains alternative solutions for problem resolution.

(2) Constructing the Judgment (Pairwise Comparison) Matrix

Starting from the second level (intermediate layer) of the hierarchical model, pairwise comparisons of relative importance can be made between factors at the same level under the same superior factor. Judgment values are assigned using the 1-9 scale method to construct the judgment (pairwise comparison) matrix A :

$$A = (a_{ij})_{n \times n} = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} \quad (1)$$

Here, $a_{ij} = \frac{a_i}{a_j}$ denotes the importance comparison result of the i -th factor relative to the j -th factor.

In mathematical theory, a consistent matrix is a positive anticommutative matrix satisfying $a_{ij} \times a_{jk} = a_{ik}$, ($i, j, k = 1, 2, \dots, n$). The judgment matrix A possesses consistent matrix properties but also permits inconsistencies within a certain range.

(3) Calculate single-sorting weight vectors and perform consistency checks

Hierarchical single sorting refers to the process of calculating relative importance weight values for factors at a given level relative to their parent-level factors.

For practical simplicity, simplified formulas are typically used to compute the maximum eigenvalue λ_{max} and weight vector ω of the judgment matrix A :

$$A\omega = \lambda_{max}\omega \quad (2)$$

The calculation process for the power vector ω is as follows: Normalize the column vectors and row vectors of the eigenvector of λ_{max} using the sum method.

Define the consistency index:

$$CI = \frac{\lambda_{max} - n}{n - 1} \quad (3)$$

Use formula (3) to test the consistency of hierarchical single-sorting, specifically to verify whether the inconsistency index (CI) of the judgment matrix A falls within the specified deviation range. If the consistency index is 0, then consistency is achieved perfectly. As CI gets closer to zero, the level of consistency satisfaction improves. On the other hand, when CI moves away from zero, there is greater deviation from consistency.

Define the consistency ratio as the ratio of the consistency index CI to the random consistency index RI, expressed by the formula:

$$CR = \frac{CI}{RI} \quad (4)$$

When CR is less than 0.1, the consistency test for single sorting passes. Otherwise, it fails, requiring readjustment of the elements a_{ij} in the judgment matrix A . Repeat the above process until consistency requirements are met.

(4) Calculate the overall ranking weight vector and perform consistency testing

Unlike single-sorting, hierarchical overall ranking involves calculating the weight values for relative importance at the highest level. This calculation proceeds top-down. After completing single-sorting calculations for each layer, the consistency ratio for hierarchical overall ranking can be computed.

The consistency ratio for hierarchical overall ranking is defined by the formula:

$$CR = \frac{a_1CI_1 + a_2CI_2 + \dots + a_mCI_m}{a_1RI_1 + a_2RI_2 + \dots + a_mRI_m} \quad (5)$$

Similarly, when CR is less than 0.1, the consistency test passes through hierarchical total ordering. Otherwise, the elements a_{ij} of the judgment matrix A are adjusted. After the final

consistency test, rational decisions can be conveniently made based on the ranking values at the lowest level.

2.2.2 Improved AHP Procedure

(1) Establishing an Improved AHP Judgment Matrix

The improved AHP builds upon the original Analytic Hierarchy Process by introducing a three-scale method (-1, 0, 1) to derive the optimal transmission matrix. This maximum eigenvalue was calculated based on this matrix and its corresponding eigenvector gave out the weights for each factor. As compared to the AHP model, the proposed method involves less verification and adjustments processes, makes calculations easier and is more accurate.

Expert opinions were sought on how important the risk factors influencing corporate mergers and acquisitions are. Since these factors might be significant at different times and places, importance measurement was done assuming normal situations only, with any abrupt situation being ruled out. In this way, judgment matrices were developed for objective, criterion and plan level objectives.

(2) Calculating Optimal Transfer Matrices for Each Judgment Matrix

The formula for calculating elements in the optimal transfer matrix is:

$$r_{ij} = \frac{1}{n} \sum_{k=1}^n (a_{ik} + a_{kj}) \quad (6)$$

(3) Transformation Matrix

The formula for calculating the elements in the identity matrix is:

$$d_{ij} = \exp(r_{ij}) \quad (7)$$

(4) Single-Layer Sorting

Calculate the relative weights of factors at this layer relative to factors at the previous layer based on the consistency matrix D. This involves finding the eigenvector corresponding to the largest eigenvalue of the consistency matrix D. The calculation formula is:

$$DW = \lambda_{\max} W \quad (8)$$

Common methods for finding feature vectors include the square root method and the sum-product method. Among these, the square root method is widely recognized by experts and scholars as a relatively mature approach. Therefore, this paper adopts the square root method for solution. The solution process of the square root method is as follows: 1) Multiply the elements of D row-by-row to obtain a new vector. 2) Raise each component of the new vector to the nth power. 3) Normalize the resulting vector to obtain the weight vector. Then:

$$W_i = \frac{\left(\prod_{j=1}^n a_{ij} \right)^{\frac{1}{n}}}{\sum_{i=1}^n \left(\prod_{j=1}^n a_{ij} \right)^{\frac{1}{n}}}, i = 1, 2, \dots, n \quad (9)$$

(5) Hierarchical Overall Ranking

Hierarchical overall ranking refers to the relative importance of each factor in the scheme layer C to the objective layer A . It is essentially a weighted combination of hierarchical single rankings. That is, $V = W_i * W, i = 1, 2, 3, 4$.

2.2.3 Fuzzy Comprehensive Evaluation Method

Conduct a comprehensive evaluation of the assessment system constructed above. During the fuzzy comprehensive evaluation process, the fuzzy rating set serves as its core component, enabling a reasonable and clear classification of financial risk levels in corporate mergers and acquisitions.

(1) Determining the Evaluation Factor Set

First, identify the various evaluation factors for the subject. Assuming there are n evaluation factors, they constitute the evaluation factor set:

$$U = \{u_1, u_2, \dots, u_n\} \quad (10)$$

Each factor U_i exerts a certain influence on the evaluation results.

(2) Determining the Evaluation Grade Set

Establish evaluation grades, typically divided into multiple levels (e.g., very high, high, average, low, very low). These grades constitute the evaluation grade set:

$$V = \{v_1, v_2, \dots, v_m\} \quad (11)$$

Evaluation grades are used to measure the overall status of various factors.

(3) Determining the Weight Set

Based on the importance of each evaluation factor, determine the weight of each factor to form the weight set A where the weight values satisfy:

$$A = \{a_1, a_2, \dots, a_n\}, \sum_{i=1}^n a_i = 1 \quad (12)$$

Among these, a_i denotes the weight of evaluation factor u_i .

(4) Constructing the Fuzzy Evaluation Matrix

For each evaluation factor u_i , assign its membership degree to each evaluation grade based on the actual circumstances of the evaluation object. The membership degree reflects the extent to which the evaluation object belongs to a specific evaluation grade under that factor, denoted as r_{ij} , representing the membership degree of factor u_i for grade v_j . The membership degrees of all factors form the fuzzy evaluation matrix:

$$R = (r_{ij})_{m \times n} = \begin{bmatrix} r_{11} & r_{12} & r_{13} & \dots & r_{1n} \\ r_{21} & r_{22} & r_{23} & \dots & r_{2n} \\ \dots & \dots & \dots & \dots & r_{11} \\ r_{m1} & r_{m2} & r_{m3} & \dots & r_{mn} \end{bmatrix} \quad (13)$$

(5) Fuzzy Synthesis Operation

Using the weighted average method or weighted maximum-minimum method, perform fuzzy synthesis operations between the weight set A and the fuzzy evaluation matrix R to obtain the fuzzy synthesis evaluation result B :

$$B = (a_1, a_2, \dots, a_m) \begin{bmatrix} r_{11} & r_{12} & r_{13} & \dots & r_{1n} \\ r_{21} & r_{22} & r_{23} & \dots & r_{2n} \\ \dots & \dots & \dots & \dots & \dots \\ r_{m1} & r_{m2} & r_{m3} & \dots & r_{mn} \end{bmatrix} = (b_1, b_2, \dots, b_m) \quad (14)$$

Among these, b_j denotes the membership degree of the comprehensive evaluation result belonging to the j th evaluation grade.

(6) Determining the Comprehensive Evaluation Result

Based on the result B obtained through fuzzy comprehensive operations, the final grade of the evaluation object can be determined using either the maximum membership degree principle or the weighted average method. The maximum membership degree principle selects the evaluation grade corresponding to the largest b_j as the evaluation result. The weighted average method calculates the weighted average of each evaluation grade to obtain a comprehensive score.

For sections requiring expert scoring, the author invited relevant experts to evaluate, with five fixed comment options: $V = \{V_1, V_2, V_3, V_4, V_5\} = \{\text{Very High, High, Average, Low, Very Low}\} = \{1, 2, 3, 4, 5\}$.

The final evaluation result E is calculated as follows:

$$E = \sum_{i=1}^5 b_i \cdot Level_i (Level_i \text{ is the corresponding risk level}) \quad (15)$$

Finally, the risk is confirmed based on the comprehensive evaluation result E .

3 Financial Risk Assessment Analysis in Corporate Mergers and Acquisitions

3.1 Weighting of Indicators

Corporate mergers and acquisitions are high-risk business activities, with risks permeating the entire M&A process. Among these, financial risks significantly influence the success of M&A transactions. Considering that a company's stage in the industry life cycle affects its M&A financial risks, which in turn impacts M&A performance, this paper introduces the industry life cycle into the assessment of M&A financial risks. This approach aims to more effectively mitigate financial risks and maintain them within acceptable limits.

3.1.1 Questionnaire Survey

To obtain the weighting of financial risk assessment indicators for mergers and acquisitions based on industry life cycle—that is, the degree to which each financial indicator influences financial risk during M&A activities for enterprises in growth, mature, or declining industries—this study conducted a questionnaire survey.

To ensure the objectivity and scientific rigor of the survey, 50 experts and scholars from diverse fields were invited to evaluate the relative importance of the assessment indicators. Respondents included 18 academics specializing in the field of finance at universities, 12 industry specialists working for securities firms, 8 certified public accountants working for accounting firms, 6 banking specialists, and 6 corporate finance specialists. Out of a total of 46

respondents, 41 met the criteria of consistency in their responses, and this yielded a validity ratio of 89.13%.

The design of the questionnaire allowed for 5 points for evaluating importance of the indicators on all tiers: 1 point stood for “equally important,” 3 for “slightly important,” 5 for “significantly important,” 7 for “strongly important,” and 9 for “extremely important.” The sub-level scores 2, 4, 6, and 8 were used to indicate the degree of importance between adjacent importance scales.

3.1.2 Indicator Weighting Results

Using an improved AHP method, the different weights assigned by all experts to the same indicator were calculated and then averaged arithmetically to obtain the indicator weights for each level. The weights for each indicator obtained from the first questionnaire (i.e., weights generated using traditional methods without considering the industry life cycle) are shown in Figure 2. The resulting weights for the indicators Pricing Risk X1, Financing Risk X2, Debt Repayment Risk X3, and Integration Risk X4 are 0.183, 0.157, 0.296, and 0.364, respectively.

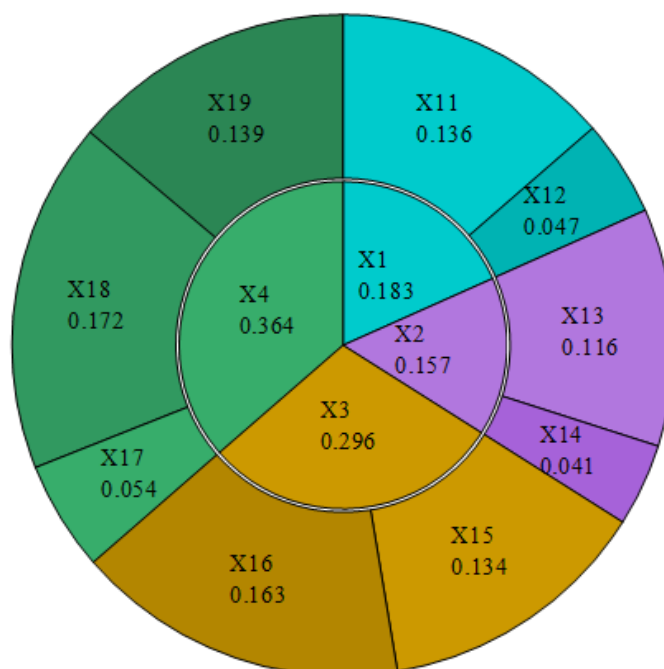


Figure 2: The weight of the evaluation index of M&A financial risk

The second set of questionnaires collected yielded calculated weights for financial risk indicators during corporate mergers and acquisitions across industries at different lifecycle stages. The weights for indicators during M&A in growth-stage industries are shown in Figure 3. The weights for indicators during M&A in mature-stage industries are shown in Figure 4. The weights for indicators during M&A in decline-stage industries are shown in Figure 5. Comparative analysis of the weighting results reveals that enterprises at different industry lifecycle stages face distinct pricing risks, financing risks, debt repayment risks, and integration risks.

In growth-stage industries, the weights for financing risk (X2) and integration risk (X4) are relatively high at 0.265 and 0.272, respectively, while pricing risk (X1) and debt repayment risk (X3) are comparatively lower. For mature industries, the weights for financing risk (X2) and integration risk (X4) are lower than those for growth industries, at 0.223 and 0.229 respectively. The weights for pricing risk (X1) and debt repayment risk (X3) are higher than for growth

industries, at 0.259 and 0.288 respectively. Companies in declining industries exhibit a high weight for integration risk at 0.418. Financing risk and solvency risk have comparable weight levels, while pricing risk carries the lowest weight at 0.162.

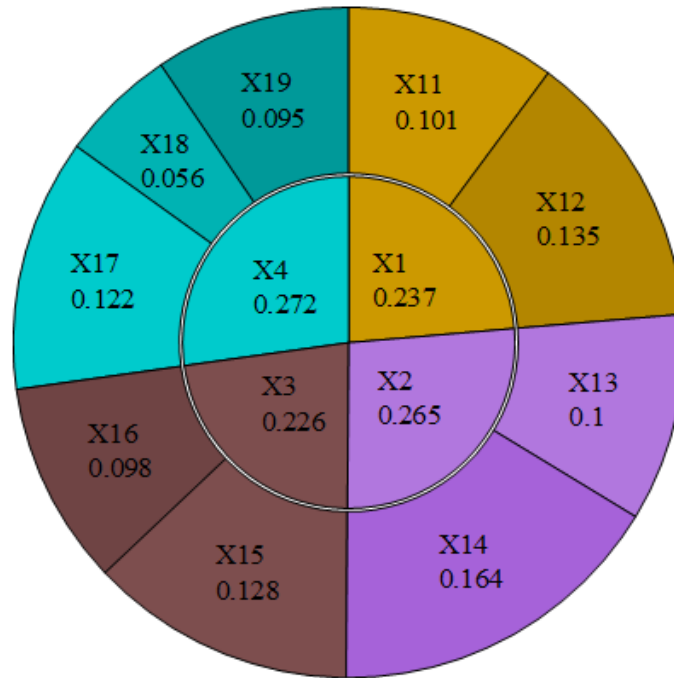


Figure 3: The weight of the evaluation index of M&A financial risk(Growth industry)

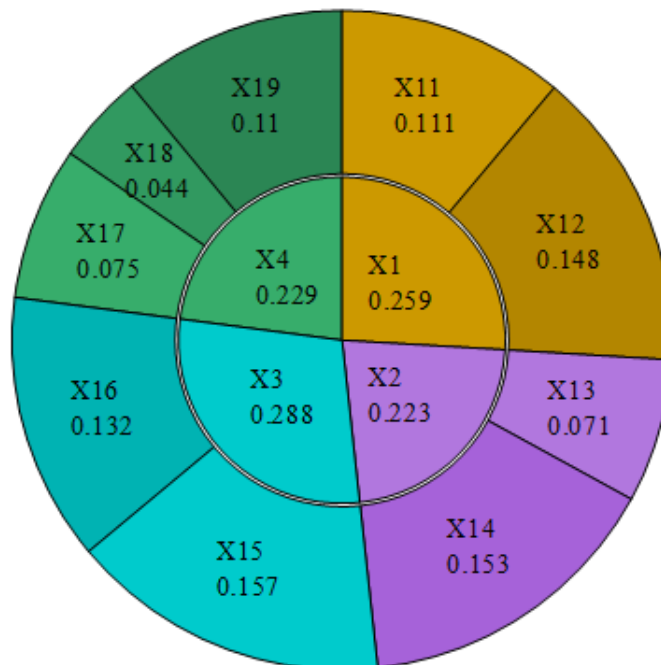


Figure 4: The weight of the evaluation index of M&A financial risk(Mature industry)

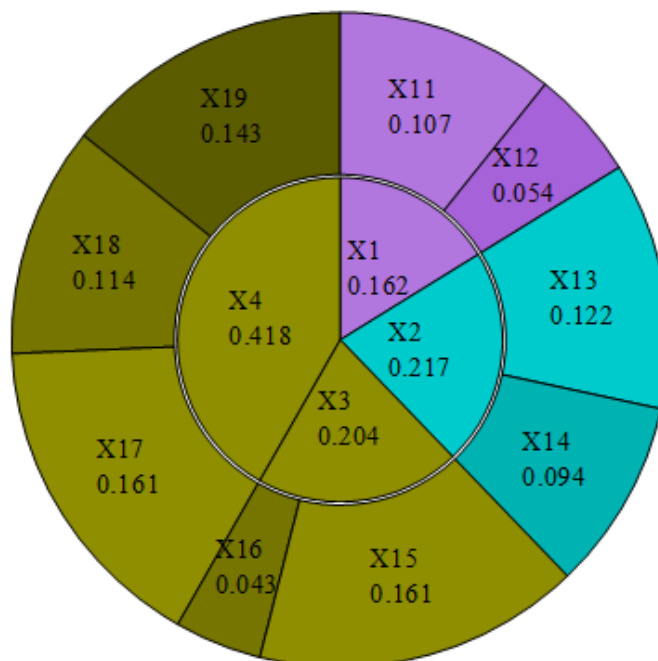


Figure 5: The weight of the evaluation index of M&A financial risk (Recession industry)

3.2 Empirical Research

This study conducts an empirical analysis of two enterprises, X and Y, at different stages of their life cycles. Corporate M&A financial risks are categorized into five levels: low risk, relatively low risk, moderate risk, relatively high risk, and high risk. Financial risk outcomes are calculated using weighted financial risk indicators and the fuzzy comprehensive evaluation method. Data sources include assessments from 25 experts across various fields during the M&A process of both enterprises.

Through computational analysis, fuzzy evaluation results for the intermediate layer of M&A financial risk can be obtained. The fuzzy evaluation outcomes for the target layer and criterion layer regarding M&A financial risk are presented in Table 1.

Following fuzzy comprehensive evaluation and computational analysis, the probability of Company X acquiring Company Y being at moderate risk is deemed highest at 30%, followed by low risk at 27%, very low risk at 21%, high risk at 13%, and extremely high risk at 9%. Quantifying these risk data yields a risk score of $0.08*5 + 0.13*4 + 0.30*3 + 0.27*2 + 0.21*1 = 2.57$. This indicates the financial risk of this M&A transaction falls between moderate and low risk.

Pricing Risk Evaluation Results: The pricing risk for Company X's acquisition of Company Y has the highest probability of moderate risk at 30%, followed by very low risk and low risk at 24%, high risk at 16%, and very high risk at 6%.

Financing Risk Evaluation Results: The financing risk for Company X's acquisition of Company Y has the highest probability of being very low risk at 42%, followed by low risk at 31%, moderate risk at 16%, high risk at 8%, and the lowest probability of being very high risk at 3%. The risk of financing is normally one of the major risks that occur during mergers and acquisitions. In particular, the risk of financing is very minimal in this case, largely because of the nature of the cash merger process and also due to the large capital base held by Company X.

Results on the Evaluation of Risk of Debt Repayment: The probabilities of very low risk, low risk, moderate risk, high risk, and very high risk are 32%, 30%, 22%, 11%, and 5%

respectively. Just like in financing risk, the payment risk involved in the process of mergers and acquisitions is characterized by relatively low probability rates owing to the nature of payment.

Results of Integration Risk Assessment: In the case of the acquisition of Company Y by Company X, the probability rates of moderate, low, high, very low, and very high integration risks are 33%, 25%, 17%, 14%, and 11% respectively. From this assessment, it can be concluded that the level of integration risk involved in this particular acquisition is just above moderate, requiring more caution on the part of Company X.

Table 1: Fuzzy evaluation results of M&A financial risk

Index		Fuzzy evaluation results(%)				
		Very high risk	High risk	General risk	Low risk	Very low risk
Target layer		9	13	30	27	21
Criterion layer	X1	6	16	30	24	24
	X2	3	8	16	31	42
	X3	5	11	22	30	32
	X4	11	17	33	25	14

4 Financial Integration Strategies for Corporate Mergers and Acquisitions

The phenomena of mergers and acquisitions result in business growth, structural optimization, and market share increase. However, such actions create a number of financial problems. That is why post-acquisition financial integration has become an important issue for corporations.

4.1 Standardized Consolidated Financial Statements

The consolidation of financial statements can be defined as an important procedure in post-acquisition financial integration that ensures the consolidation of financial data and accuracy in financial decision-making for the acquired firms. The first step is to consolidate the balance sheets, adding assets, liabilities, and owners' equity. The second step is to consolidate the income statement, where you need to add operating revenues, cost of goods sold, period costs, and profit. Finally, consolidate the cash flow statement where cash inflow, cash outflow, and net cash flow are added.

4.2 Strengthen the pace of asset-liability restructuring

The restructuring of assets and liabilities is an essential aspect of financial integration after the merger, aiming at improving capital structures, asset use efficiency, and reducing financial risks. There are various aspects to be considered: 1) Appraisal and disposal of assets. Carry out a detailed evaluation of the assets of the merged entity, both tangible and intangible assets, to ensure a fair valuation of assets. 2) Restructuring of debt. Review the debts of the merged entity, and restructure the debts to lower the cost of borrowing and improve the debt structure. Seek to negotiate with creditors to explore ways of lowering the debt level through postponement of payments, cancellation of debts, or conversion of debts into equity. 3) Restructuring of asset-liabilities. Improve the asset structure by increasing the percentage of current assets to enhance solvency and modify the liabilities to improve the debt-equity ratio. 4) Divesting and integrating assets. Sell off assets not crucial to the business activities of the company to focus on core business operations and integrate assets of complementary nature between the merged entities. 5) Tax policy considerations. While restructuring the assets and liabilities, take into

consideration the tax policies and undertake tax planning to minimize the tax burden. 6) Risk management. Implement measures to reduce financial risks and improve financial stability through asset-liability restructuring, and create mechanisms to monitor and manage risks.

4.3 Unified Financial Systems and Processes

System integration is another important step. Ensure uniformity of accounting practices so that there will be no disparities between the financial data. Ensure uniformity of the accounting system as well as financial management system so that a complete financial management system is created that will fit the requirements of the business, including budget management, cost control, and capital management. Financial process integration is the other step to ensure smooth financial processes.

4.4 Strengthen Financial Risk Management

First is the risk of financial integration. The main risks involved in this area revolve around those associated with financial risks occurring during the process of financial integration in mergers and acquisitions (M&As) on account of reasons such as financial information asymmetry and suboptimal financial structures. The second risk is the risk of financing. It essentially involves difficulties faced by the parties to an M&A in relation to the financing activity. They include financing cost risks and financing channel risks. Lack of adequate funding or high costs of financing could impact M&A process and financial integration. The third risk category consists of tax risks. They consist of the following: (a) tax planning risks—failure of proper tax planning by either of the parties can lead to higher tax burden and greater financial risks; and (b) tax compliance risks—penalties may be imposed on non-compliance in respect of tax procedures by M&A parties. The fourth category is exchange rate risks.

5 Conclusion

Various financial risks could arise during the M&A process, posing threats to the process itself or the consequences arising from it. In this research, an improved version of the Analytic Hierarchy Process (AHP), together with a fuzzy comprehensive evaluation model, will be used to identify and evaluate financial risks in M&As of firms and discuss financial integration strategies.

(1) The life-cycle stage at which a firm finds itself in the industry significantly impacts the M&A financial risk profile, since different life-cycle stages result in specific risk behaviors. Financing risk and integration risk are the two main factors affecting M&A in industries that are in their growth stage, with weights of 0.265 and 0.272, respectively. In industries that have reached their mature stage, pricing risk and debt repayment risk weigh the most in the M&A financial risk profile, at weights of 0.259 and 0.288, respectively.

(2) The financial risk assessment score for Company X's acquisition of Company Y is 2.57, falling within the moderate risk range. The target entity's financial risk has a 30% probability of moderate risk, a 27% probability of low risk, and probabilities of 21%, 13%, and 9% for very low, high, and very high risks, respectively. Based on these indicators, the M&A risk is classified as moderate.

(3) It is imperative to actively investigate the primary causes of financial risks in corporate mergers and acquisitions. Standardizing consolidated financial statements, intensifying efforts in asset-liability restructuring, unifying financial systems and processes, and strengthening financial risk management are essential to mitigate financial risks in M&A transactions and enhance the success rate of mergers and acquisitions.

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