

The Internal Game Analysis of Enterprise Financial Risk Management

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Abstract: Due to the Rationality of Human Boundary and Opportunism, Enterprises Have Greater Financial Risk. One of the Effective Ways to Solve the High Risk is to Establish the Early Warning System of Financial Risk and Eliminate the Information Asymmetry between the Owner and the Operator.

1. Introduction

F0sier Defines Financial Risk as “the Application of Economic Entities and Large-Scale Restructuring Cannot Solve Serious Problems”, or Generally, the Financing and Utilization of Funds Cannot Fulfill the Meaning of Financial Payment. Many Empirical Studies Show That the Financial Risk of Enterprises Will Not Happen in the Short Term, But There Will Be a Long Waiting Time. in the Early Stage of the Formation of Financial Risk, Many Enterprises Can Not Carry out Effective Management Because of the Inefficiency of Financial Risk Management Caused by the Principe Problem[1]. from the Perspective of Financial Risk Management, We Can See the Outstanding Performance of the Problem, the Owner Completes the Business Indicators of the Issue, in Order to Maximize Their Own Income, the Operator for the Highest Performance, the Most Important Problem of Financial Risk If It is the Former, the Latter is the Former is Covered and Hidden. If the Owner Has Strong Supervision and Management Means, Then the Owner Can Quickly Pull the Broker Back, in Order to Maximize the Benefits and Minimize the Financial Risks, to Eliminate the Negative Impact of Institutional Problems.

However, At Present, the Main Methods Used in the Financial Risk Management of Chinese Enterprises Have Defects in Varying Degrees. There Are Few Static Analysis, Dynamic Analysis, Qualitative Analysis and Quantitative Analysis. the Recording Problem is Significant. the Financial Risk between the Owner and the Operator is Difficult to Achieve Complete Information Parity[2]. Operators and Owners Get Difficult Hidden Information. Therefore, the Operational Indicators Issued by the Owners Report Risks According to the Maximum Compensation for the Damage, and the Technical Means Covered by These Risks Should Not Be Used. in Order to Further Explain the Existence of This Moral Hazard, This Paper Uses Binary Game Theory and Coase Theorem, Trying to Analyze It in Depth.

2. The Existence of Moral Hazard and the Dual Game of Enterprise Managers

In the financial risk management of an enterprise, first of all, the contract between the operator and the owner indicates the potential risk and the appropriate measures to eliminate the financial risk in time. In addition, for the purpose of business stability of an enterprise, in order to achieve the proper size and idea of loans, several other business indicators are forced to give up[3]. According to the incomplete contract theory of Williamson (Oliver, Williamson, 1975): the human limit determines that the contract is not omnipotent. These theories are mainly based on the fact that people are “limited” and reasonable. (if people's computing power is limited, people's profits in the uncertain future will be more than the current profits and promotion taste), then “opportunism” (people in the market economy) or enterprises (when their default income is greater than their performance income). Default selection). For an enterprise, when the potential financial risks are factual, it should be disclosed in a timely manner according to the contract risks of the relevant

owners, which is the impact of the business policy of the enterprise, and the income (promotion) of the completion standard has an impact. If the owner does not have an effective monitoring mechanism, such as through technical measures, some risks will not erupt within 2 or 3 years (or longer). When the risk is stressed, the loss will be borne by its successor or owner.

Operator and owner enter into the contract of two players similar to game set (only operator's income matrix is considered here). In terms of the completion of indicators, potential financial risks. If the operator expresses the risks, the financial situation of the company shows dissatisfaction according to the risk management indicators established by the owner. Therefore, the company is punished to some extent[4]. The owner provides specific remuneration (expressed by “L”) to achieve various operational indicators and financial conditions of “good quality”. In the case of failing to achieve the target, operators are subject to double punishment (indicated by “one 2”) by revealing the risk that they affect the completion of the target; if they conceal the risk, they will only be punished once (indicated by “one 1”). Represents the return matrix of the operator game [5].

Table 1 Income Matrix Of Operator Game

	Reveal	Not reveal
Completion indicators	-1	1
Unfinished target	-2	-1

From the perspective of the game return matrix of operators, no matter whether it can complete the business indicators, its undisclosed potential financial risks are greater than the earnings. In addition, as long as the owner's comprehensive and effective supervision mechanism is not established, the game will continue in some operators [6].

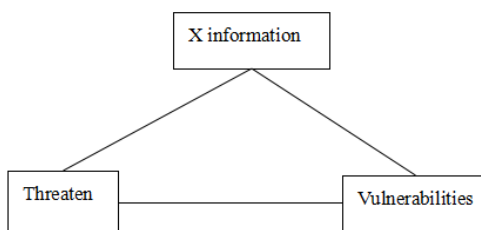


Fig.1 Risk Measurement Method

3. The Scheme Provided by Coase Theorem

Table 2 Types and Characteristics of Enterprise Groups

Type	Description of operating characteristics	Management feature description
Business operation type	The whole group carries out production and operation activities around a certain core business, and each enterprise is a link in the group's core business chain	Seek the coordinated production of the whole group, so as to obtain the production synergy and scale benefit..
Strategic control type	The whole group is engaged in the production and operation of home appliances in a certain field or building materials and real estate in several related fields	Provide support for the development of each unit through sharing technology, sharing business and excellent group headquarters functions, and seek for financial and business and technical synergies
Financial investment type	There is no business relationship among the group's subordinate enterprises. They are engaged in non industry and product operations and are independent of each other.	Generally, only financial target control is adopted

The reason why the game is established is that the current financial risk management mechanism is static, backward, and limited by rationality and opportunism. Specifically, enterprises attach importance to business development, fail to fully invest in financial risk management, and some financial risks are not effectively monitored, resulting in losses. Financial risk has a specific

incubation period, and the final loss has a certain delay[7]. As a result, most of the losses caused by financial risks are not borne by the company's operators, which leads to the phenomenon of "externality internalization". In theory, whoever caused the financial loss should bear it. In practice, most of the loss is borne by the owner and others. As the following analysis shows, externality will lead to economic inefficiency.

Under the assumption of X, the venture capital stock of an enterprise is x, and the return rate of an enterprise is p. Because there is no loss in the current period of time and it is not borne by the operators (in order to simplify, some of them are all simplified) E_x is an external problem. Operator and owner's benefit equation is: C_x , which is the benefit equation of the enterprise operator and the common cost used to manage financial risk. Since the loss cost is not borne by the operator, the operator's benefit equation will not be bound by[8]. The necessary conditions for the best interests of the operator are obtained by deriving the formula once. Obviously, C 'is only the operator's personal marginal cost, excluding marginal cost. If is the constraint of operator, its total profit is:

$$\Pi_1 = MAX(Px - C(x)) \quad (1)$$

$$\Pi_2 = -e(x) \quad (2)$$

The first condition of this problem is:

$$\begin{aligned} \Pi_1 = P - C(x) &= 0 \\ P &= C(x_q) \end{aligned} \quad (3)$$

Because $C'(x)$ is a convex function, and because P-E' (dynamic less than $C'(Zha)$, $X_{bar} <$ where, that is, after externality is internalized, it will increase the enthusiasm of business operators to reveal and resolve financial risks. This can be analyzed from Figure 2.

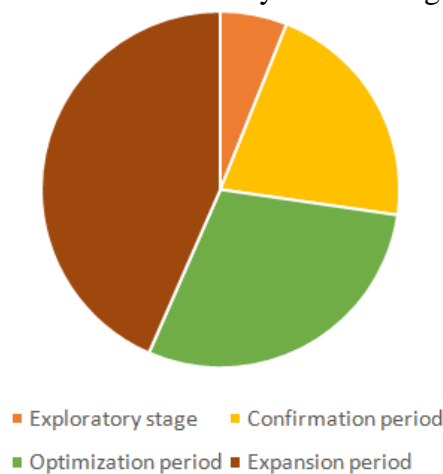


Fig.2 Proportion of Risk Period

In Figure 2, M_r is the marginal income obtained by the operator of the enterprise due to the disguise of financial risks. MC is the marginal cost of the operator under the condition of externality, and X is the equilibrium risk capital stock under the cost item. As the potential financial risk of the enterprise is revealed in time, MC will move to MC when the operator bears the loss of the current financial risk. , the corresponding equilibrium risk capital stock is X . And X plant X . The difference is the reduction of risk capital when the potential financial risk is revealed. It can be seen that to realize the movement of MC to MEC , mobilize the enthusiasm of managers to pay attention to the potential financial risk management of enterprises, and achieve the purpose of controlling the financial risk of enterprises, it mainly depends on the degree to which the externalization problem can be solved.

According to Coase theorem, in order to solve external problems, the initial state of property right does not need to be considered. As long as the information asymmetry in the transaction

process is completely eliminated, the externality problem can be internalized[9]. The establishment of an effective financial risk early warning system is a practical way to solve the problem of information asymmetry. Its purpose is to use information technology to build the information bridge between operators and owners, so as to eliminate the information asymmetry between them. Through the initial early warning information system, the information gap between the owner and the operator can be built, the degree of connection can be greatly strengthened, and the initiative of comprehensive control of financial risks can be grasped. If the initial alarm system is very efficient. Whether the operator discloses the risk or not, the potential financial risk of the enterprise will be disclosed in time. The operator bears the present risk of loss. The marginal cost curve is MC in Figure 2. In this way, we can control the potential risk loss and achieve the best regression in theory.

4. Conclusion

The comprehensive budget management system establishes the importance of close use of the budget and the group's unified budget for investment and fund raising, budget management to repay the cash flow of the loan and the guarantee relationship between the attachments. Its budget and debt actions can solve the risk research[10]. Set up operation management center in the group headquarters to improve and implement the supporting process control system. When the sales price is obviously lower than the market price, such as the implementation of "stop mechanism", stop the activities of providing customers with improper receivables subsidiaries that have lost cash flow. Formulate evaluation and reward countermeasures, and modify budget objectives according to budget situation and changes in market. According to the budget implementation of the subsidiary, evaluate the person in charge of the contract and strictly implement the budget.

In order to avoid the formation of a destructive security chain, please control the majority mutual insurance relationship with the relevant political parties. Based on the complete understanding and analysis of the guaranteed party, the company will provide low reliability, low turnover conditions and major litigation to the third party if the guarantee is required. It is necessary for the guarantee company to pay great attention. After the guarantee enterprise signs the guarantee contract with the guarantee enterprise, the supervision and management of the guaranteed enterprise shall be strengthened. The secured party may provide written information about the monthly financial statements or the use of the funds. Through the analysis of the financial details and information of the guaranteed company, they can maintain the lag of business development and find problems when taking timely measures. Guarantee or termination to reduce the risk of guarantee, etc.

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