

# CREDIT DECISION MAKING FOR SMALL AND MEDIUM ENTERPRISES BASED ON INTERPLAYED THEORY

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With the promotion of the degree of marketization of China's economic system, small and medium-sized enterprises (SMEs) have been booming, and their financing needs have increased rapidly. Relevant government departments have introduced various preferential policies to support the financing of SMEs, encouraging financial institutions to lend to SMEs.

In the application principle, this paper expounds the fundamentals of enterprises and credit projects can be in five elements of fire, soil, metal, water, wood represented by the properties, divided into their five elements. These five elements maintain the balance between business fundamentals and the status quo of credit projects through a relationship that is both promoting and binding. This paper further points out that this relationship can be used to carry out loan risk assessment, and establish interplayed credit decision-making model for reasonable credit decision-making.

According to the conclusion of empirical research, this paper illustrates that credit personnel can clarify their thinking and improve their efficiency by conducting enterprise investigation according to the interplayed theory, and credit institutions can make credit decisions according to interplayed credit decision-making model, which can establish a unified evaluation and decision-making standard, enhance the rationality of decision-making, and effectively reduce the loan risk rate of credit institutions.

**Keywords:** SME; Five Elements; Interplayed Theory; Risk Assessment Model; Credit Decision Making.

This paper holds that the credit evaluation should be the same as the old doctor of traditional Chinese medicine (TCM). There should be no operation, no film, no test, through the four methods of looking, smelling, asking, and pulsing, which can be accurately diagnosed, and prescribed to cure the disease. The theoretical basis of traditional Chinese medicine is interlinked with ancient Chinese philosophy. «Medicine is easy to be homologous» is an objective understanding of this interconnectedness. The yellow emperor's Canon, the theoretical classic of TCM, has fully absorbed the essence of the Book of Yiing [1], so the theoretical basis of TCM is the Interplayed Theory of the Five Elements.

According to the theory of mutual inclusion of five elements, each line of the five elements can be subdivided into five elements. The five elements of a loan project can be subdivided into their own five elements, so as to achieve a dynamic balance of one element. Among them, this paper analyzes the loan risk by subdividing the five elements of the enterprise fundamentals.

The five elements correspond to the five elements of enterprise fundamentals and their interrelation of mutual promotion is shown in the following figure:

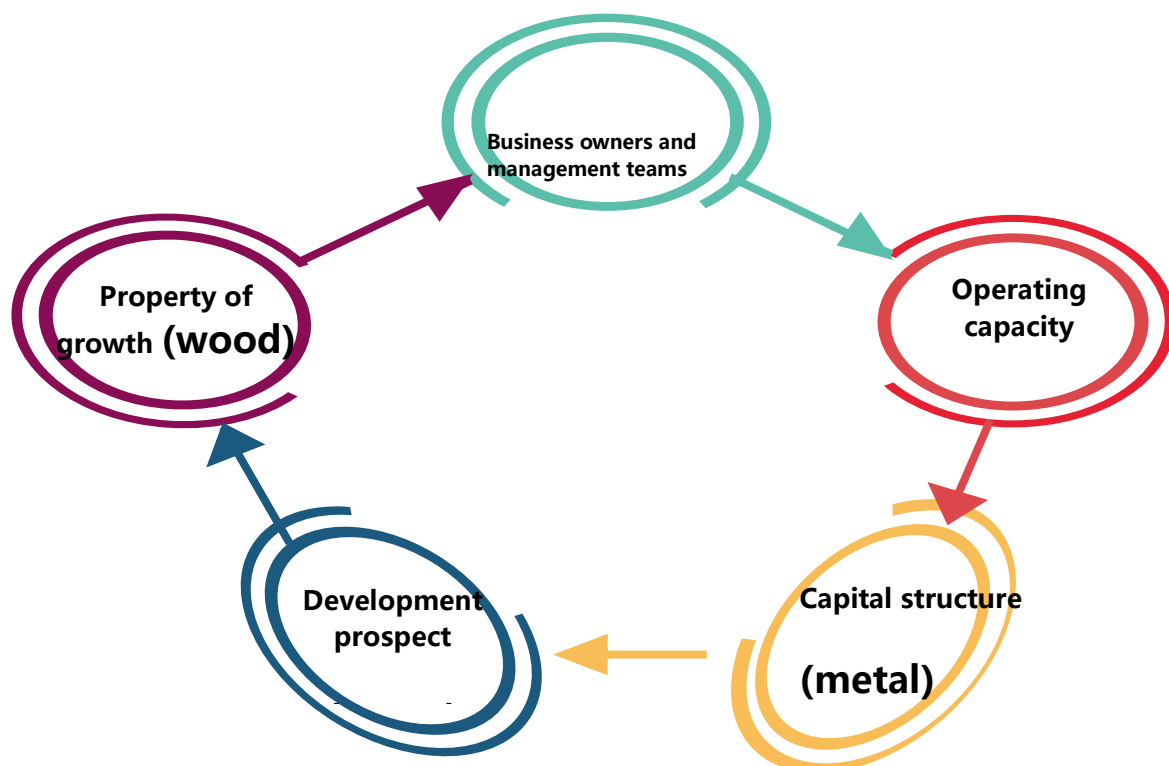


Fig. 1. Schematic Diagram of the Five Elements of an Enterprise of Mutual Promotion

Based on the relationship between the five factors, it can be inferred that if the operating capacity is not good nor is the profitability, the reason will conduct from either the operation is not good, or the enterprise is in recession in the growth stage, and the owner is likely to default. If the operation ability is very good, at the same time the profitability is general or poor, it is likely to be large hidden liabilities, financial leverage will be too high. On the contrary, if the operating capacity is very good, and the profitability is also very good, the hidden liabilities are not large, and there is a certain debt bearing capacity. And so on, it can be expressed in the following table 1.

**Five Elements for Inferring Enterprise Fundamental Elements**

Known indicators		Inferred conclusion			
Operation ability (Soil)	Profitability (Water)	Liabilities (Metal)	Growth stage (Wood)	Operation ability (Fire)	Probability of default (fire)
Good	High	Low	Growth	Good	Low
Good	Medium	High	Growth	Good	Medium
Good	Bad	Very high	Growth	Good	High
General	High	Low	Steady	General	Medium

End of table

Known indicators		Inferred conclusion			
Bad	High	Low	Steady	Bad	High
General	Medium	Medium low	Steady	General	Medium
Bad	Medium	Medium low	Declining	Bad	High
Bad	Low	High	Declining	Bad	Very high

In practice, every credit project investigated and reviewed by credit institutions can be divided into five major elements: loan purpose, enterprise fundamentals, source of repayment, loan risk and guarantee measures. These five elements also have a mutually reinforcing relationship, each element can be corresponding to a certain line of the five elements.

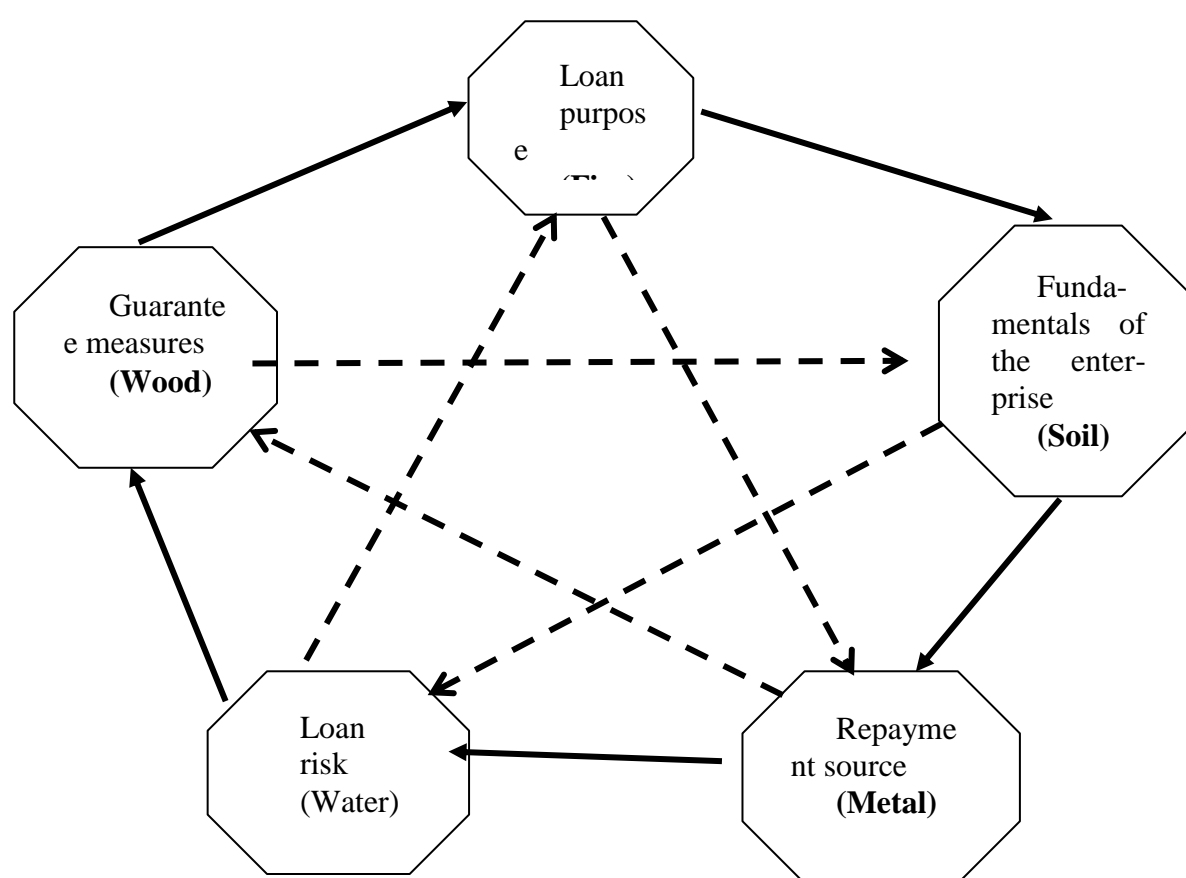


Fig. 2. Corresponding relations between the Five Elements of five elements of Credit Project and Interplayed relationships

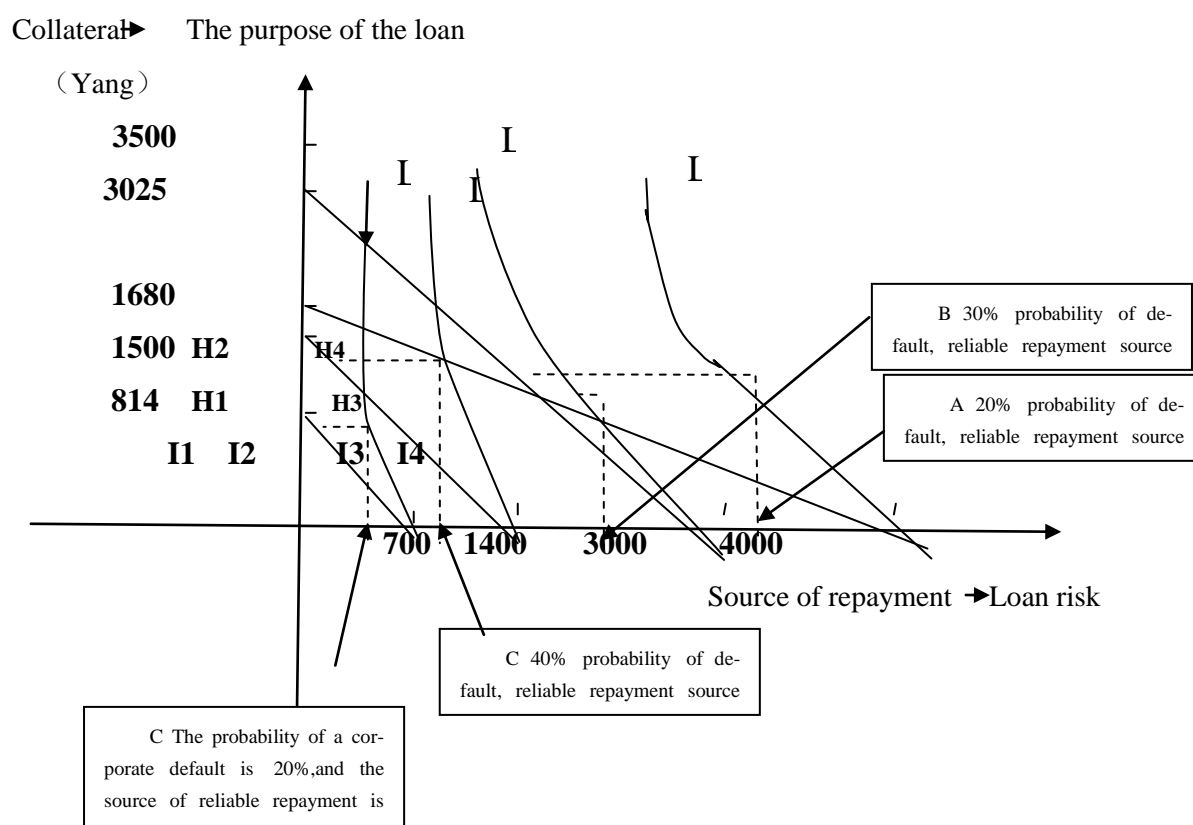


Fig. 3. A sample test diagram of the Five Elements Credit Decision Model

Figure 3 illustrates A, B, C, D four enterprises from the source of controlled repayment straight up to their respective loan lines to apply for the loan line, after intersecting from the intersection level to the left, and their respective credit resources constraint lines intersect in H4, H3, H2, H1. This indicates that the business surface of the four enterprises and the collateral provided can provide loans for the amount of application. The intersection of H2 and H1 between C and D companies is closer to the intersection of the credit resource constraint line on the vertical axis, indicating that the loans provided to the two companies are close to the ceiling relative to the collateral.

This shows that according to Five Elements of the relationship between the two can accurately infer the business situation and debt tolerance, the probability of enterprise default assessment is reliable. The loan conditions are reasonable by judging the credit model.

## References

1. Qin J. Zhouyi Guajie. Beijing: Capital of the Country, 2016.