

Risk Identification and Risk Evaluation on Real Estate Development Strategy

Hao Yukai, Wang Wei

School of Management, Wuhan University of Technology, Wuhan, P.R.China, 430070

School of Arts and Law, Wuhan University of Technology, Wuhan, P.R.China, 430070

(E-mail: haoyukai@163.com, dina0994@126.com)

Abstract This thesis firstly proposes an analysis concerning the involution of strategy risk of real estate as well as its characteristics, while discloses the reasons and the constitution of the risk. The paper takes fishbone-diagram to explain the real estate strategy-making and its implementation of China's enterprises while gives reasons for such strategy risk from ten aspects, constructs ten spokes wheel-boss model, and define the main risk of the real estate strategy. Benefiting from the External Factor Evaluation Matrix, The thesis constitutes Strategy Risk Composition Evaluation Model (SRC).

Key words Real estate; Strategy risk; Risk evaluation

1 Introduction

Since the high avails of real estate, in recent years, a large number of enterprises invest the money into this industry with an attempt to obtain great achievements; however, during the process of investment of high-profit industries, the avails also equal to high risks. The real estate investor, sometimes has shown much of their solicitude for the possibility of great avails that would come about when the decision of investment was made, while they often has ignored some potential risks. Actually, in certain condition, an enterprise carries out real estate investment can get abundant profits, while some investors may possibly suffer some loss. Therefore, the risk analysis is essential for the signification and affection of investment.

2 Strategy Risk and Characteristics of Real Estate Investment

2.1 Connotation of strategy risk in real estate investment

Strategy risk in real estate investment can be defined as that the possibilities of the real estate investment strategy suffers great fails, burden heavy losses, or even be in danger of huge calamity owing to a series of non-natural, uncertain causes. Formula 1 is the probability of significant risks and their function losing consequences. The mathematical formula can be:

$$R=F(P, C) \quad (1)$$

Where:

R is strategy risk

P is Possibilities of strategy risk

C is Consequences of strategy risk

2.2 Main Characteristics of real estate investment

The strategy risk of real estate investment has its distinct characteristics except some general ones:

(1) Interest rate risk

Real estate investment combines the characteristics of huge capital and long-term period construction that exists the risk following the alteration of capital market interest rate. Generally, if market interest rates have tiny alteration, the real estate avails may be changed abnormally. Interest rate comes to lower level, the sales of real estate would be higher, and so both assume right about change.

(2) Cash-in risk

The possibility of real estate investment cash-in is relatively poor, this because the cash-in capability of non-monetary assets itself is lower than monetary assets. And there are some more reasons can be illustrated in the following discussion: firstly, the period of real estate investment is long while the building products marketing is more harder than other commercial products; secondly, the conversion from land investment to cash always experiences certain losses that because the investment of land and the entire real estate construction should pass a period of time to be assets into the marketplace; Another reason is: real estate market is confined in a certain region that this locality can not be moved to another place for a higher price.

(3) Social risk

The social risk is to the investment risk that takes place since the political, economical changes,

social customs, society economy sustained as well as the mental state of people. Real estate business is that one combines affect of policies, law and regulations.

3 Causes and Construction of Real Estate Investment Strategy Risk

3.1 Causes of real estate investment

The cause study of strategy risk needs to be started from the formation of strategy and its application. And the methods of risk identification are plentiful: detailed list analysis, field survey, financial statement analysis, cause and effect analysis, AHP, and so on. And this thesis takes cause and effect analysis to identify the strategy risk of real estate via the application of cause-effect figure (fishbone figure) to analyze the potential causes that lead to strategy risk during the strategy formation and its implementation. See figure 1 and figure 2.

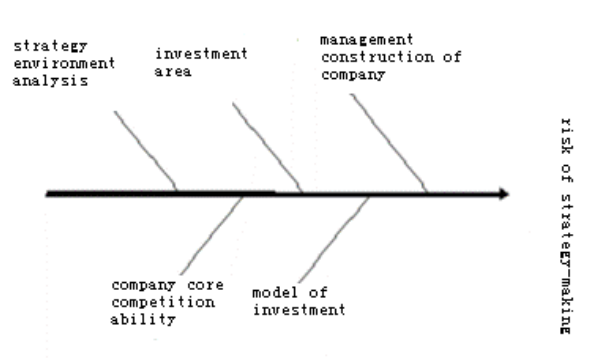


Figure 1 Cause of Strategy Risk in the Process of Strategy-making

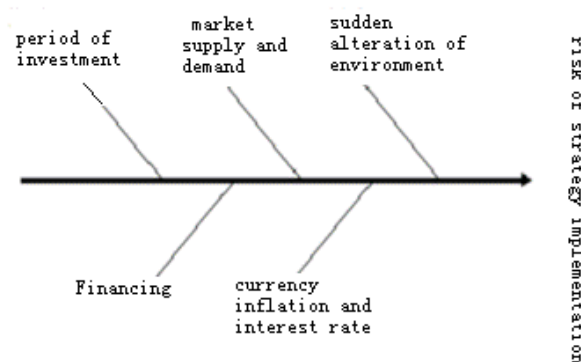


Figure 2 Cause of Strategy risk in the process of strategy-implementation

Taking cause-effect figures to analyze the process of real estate strategy-making and strategy-implementation, the thesis can find the main causes of real estate investment strategy risk.

3.2 Construction of real estate investment strategy risk

Wheel boss mode of real estate investment strategy risk

Based on the causes analysis of real estate investment strategy risk, this thesis consumes that the strategy risk of real estate investment is a combination of ten specified risks: risk of strategy environment analysis, risk of core competition ability, risk of real estate investment area, risk of corporation model, risk of strategy decision, risk of investment period, risk of financing, risk of market supply and demand, risk of currency inflation and interest rate, risk of sudden alteration of political and economical change, etc. See the wheel boss figure 3, the left side concerns the risk of strategy-making, and the right is in relation to strategy-implementation and each side combines five rooms that forms ten-spoke wheel boss figure.

4 Strategy Risk Composition Evaluation Model

In consideration of all evaluation measures, the strategy risk composition evaluation can be classified into two patterns.

One is the evaluation in advance, which means the risk evaluation concerns probabilities and degree of losses that given before the application of strategy, such as coordinate pursues law, Mentcalo Method, and so on. The results of pre-evaluation should be important foundation of strategic decisions that produces significant effect on the choice of enterprise's strategy.

Another evaluation model is to be engaged in the process of construction, namely, during the implementation of strategy, according to certain model to analyze the strategy effect index (usually concerning financial targets) and compare the gained figures with the achievements that had already been made before by the same strategy or make comparison with the similar enterprises, and then form reasonable judgment for the strategy adjustment.

These both evaluation methods can be applied in special conditions, the latter one shall be applied in certain matured industries' risk evaluation, while the former one is applicable in the field that can not obtain enough experienced figures. And the strategy risk evaluation of real estate belongs to the former ones.



Figure 3 Ten Spokes Wheel Boss Model of Strategy Risk on Real Estate Investment

According to the ten spokes wheel-boss model (Figure 3), based on the External Factor Evaluation Matrix (EFE), the thesis establishes a strategy risk evaluation model for real prosperity. This model evaluates the branch items of strategy risk and entrusts weight items to each branch, then figures out the strategy risk, so this model can be named Strategy Risk Composition Evaluation Model that can be named SRC in short (Table 1).

Steps of SRC evaluation

- (1) Organize an evaluation. specialist sub-group. The member of such group may be composed of specialists from other enterprises and the experts of the company itself and the total number of the specialists should be odd as 5 or 7 in general.
- (2) Entrust different weight to each branch items of strategy risk.

There are many measures to ascertain index weight of strategy risk branch items; in sum, they can be concluded as: subjective entrust, objective entrust and the combination of both.

According to the obvious relative grade connection of every branch item of real estate investment risk, STC takes the measure of comparison in pairs to entrust each branch item, and the experts apply Delphi Method to give points to each risk item in accordance with the specific real estate project, and then figure out the W_i .

- (3) Points by the Experts group. Take the risk coordinate pursues law classified the risks into five grades for reference, SRC also sets five grades for the risk branch items while the 1 is the lowest and the 5 is the most serious one. The experts judge the risk grade after comparison and point each branch item S_i .

Table 1 Strategy Risk Composition Evaluation Model SRC

Strategy risk branch item (R)	Weight item (Wi)	Risk grade item (Si)					Weight mark of value
Strategy environment analysis	W1	1	2	3	4	5	R1=S1W1
Core competition ability	W2	1	2	3	4	5	R2=S2W2
Real estate investment area	W3	1	2	3	4	5	R3=S3W3
Investment corporation mode	W4	1	2	3	4	5	R4=S4W4
Management structure	W5	1	2	3	4	5	R5=S5W5
Investment period	W6	1	2	3	4	5	R6=S6W6
financing	W7	1	2	3	4	5	R7=S7W7
Market supply and demand	W8	1	2	3	4	5	R8=S8W8
Currency inflation and interest rate	W9	1	2	3	4	5	R9=S9W9
Sudden alteration of political and economical environment	W10	1	2	3	4	5	R10=S10W10
Total	1.00						T

(4) Add the weight marks of value, then figure out the risk point of the specified, and the formula is :

$$T = \sum_{i=1}^n Si \times Wi \tag{2}$$

where:

S is the grade of risk of branch item

Wi is Weight mark of value

i=1,2,...10

5 Conclusions

This thesis firstly proposes an analysis concerning the involution of strategy risk of real estate as well as its characteristics, while discloses the reasons and the constitution of the risk. Strategy risk in real estate investment can be defined as that the possibilities of the real estate investment strategy suffers great fails, burden heavy losses, or even be in danger of huge calamity owing to a series of non-natural, uncertain causes. Formula 1 is the probability of significant risks and their function losing consequences.

The first step of strategy risk management is strategy risk identification. Real estate strategy risk identification means enterprises shall identify and ascertain and confirm the strategy risk while analyze the causes of real estate strategy risk as well as its structure. The paper takes fishbone-diagram to explain the real estate strategy-making and its implementation of China's enterprises while gives reasons for such strategy risk from ten aspects, constructs ten spokes wheel-boss Model, and define the main risk of the real estate strategy. Benefiting from the External Factor Evaluation Matrices, The thesis constitutes Strategy Risk Composition Evaluation Model (SRC). Based on the causes analysis of real estate investment strategy risk, this thesis consumes that the strategy risk of real estate investment is a combination of ten specified risks: risk of strategy environment analysis, risk of core competition ability, risk of real estate investment area, risk of corporation model, risk of strategy decision, risk of investment period, risk of financing, risk of market supply and demand, risk of currency inflation and interest rate, risk of sudden alteration of political and economical change, etc.

Taking the External Factor Evaluation Matrix (EFE) as reference, the thesis establishes a strategy risk evaluation model for real prosperity, named Strategy Risk Composition Evaluation Model (SRC).

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