

## Research on Marketing Risk Evaluation Method Based on Consumer Behavior Analysis

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**Abstract:** in the Process of Marketing, Enterprises Will Be Affected by Different Factors, Such as Economic Policies, Market Demand, Science and Technology, and Their Own Limitations. There Are Some Foreseeable and Unforeseeable Risks Arising from This. the Main Manifestations of These Risks Are Product Risks, Pricing Risks, Etc. as the Main Body of Marketing, Enterprises Are Bound to Bear All the Benefits or Losses Brought about by Marketing Risks. in General, the Influence Brought by Marketing Risks is Mostly Negative, That is, the Losses Suffered by Enterprises Due to Their Own Mistakes or Objective Problems. If the Company Ignores or Fails to Deal with Various Risks Correctly, It Will Be Subject to Significant Losses, and Even Bankruptcy Will Be Eliminated. to Anticipate and Properly Handle Various Risks, Information Analysis of Risks Must Be Conducted to Serve Risk Management and Risk Decision-Making. Based on the Analysis of Consumer Behavior, This Paper Explores the Methods of Risk Assessment in Marketing and Actively Seeks Strategies to Deal with Marketing Risks.

### 1. Introduction

The Aim of Enterprise Production and Management is to Maximize Its Own Interests and Value. However, There Are Many Risks in the Pursuit of Profit and Value Maximization, Such as Survival Risk, Failure Risk of Continuous Operation, and Risk of Fulfilling Social Responsibility. Enterprise Marketing Risk is That the Enterprise Cannot Reach the Expected Marketing Goal Due to Various Factors in Marketing Activities, Including Loss of Profits, Moral Loss, Image Loss, Etc. [2]. There is No Doubt That Enterprises, as the Main Body of Marketing, Are Bound to Bear All the Gains or Losses Brought about by Marketing Risks. in General, the Influence Brought by Marketing Risks is Mostly Negative, I.e. the Losses Suffered by Enterprises Due to Their Own Mistakes or Objective Problems [3]. If an Enterprise Ignores or Fails to Correctly Handle Various Risks, It May Suffer Heavy Losses, Even Go Bankrupt and Be Eliminated [4]. Although the Buyer's Psychology is Complex and Unpredictable, All These Mysterious and Unobservable Psychological Activities Can Be Reflected to Make People Know [5]. Due to the Differences in the Level of Economic Development in Different Regions, the Psychology of Consumers and the Behaviors They Exhibit Are Also Very Different. Enterprises Should Be Treated According to Specific Situations [6]. Objectively Understanding Risks and Comprehensively Considering the Various Influencing Factors and Characteristics of Risks Are Extremely Important for Assessing Risks and Effectively Preventing Risks.

Consumer Behavior Has an Important Impact on the Formulation of Corporate Marketing Strategies. to Anticipate and Properly Handle Various Risks, Information Analysis of Risks Must Be Conducted to Serve Risk Management and Risk Decision-Making. Consumer Behavior is Based on Consumer Psychology, Accurately Grasping Consumer Psychology, and Paying Attention to the Important Role of Consumers in the Market, is the Premise to Ensure the Direction of Corporate Marketing Strategy [7]. Marketers Can Find Common Aspects from the Many Factors That Influence the Behavior of Buyers, and Thus Further Explore the Formation Process of Buyer Behavior, and Use Marketing Incentives Freely in the Case of Predicting the Buyer's Reaction [8]. Enterprise Marketing Risk is That When the Company is Marketing, It May Be Affected by Various

Foreseeable or Unforeseen Factors. the Possibility That the Actual Income and the Expected Income Do Not Match the Complexity of the Marketing Risk. the Characteristics of Variability, Uncertainty, Scientific Assessment of Risks, and the Development of Effective Risk Prevention Measures in Combination with Marketing Practices Are Effective Ways to Improve the Ability of Enterprises to Resist Risks and Reduce Various Losses That Enterprises May Face in Marketing Risks [9]. . Based on the Analysis of Consumer Behavior, This Paper Explores the Methods of Risk Assessment in Marketing and Actively Seeks Strategies to Deal with Marketing Risks.

## **2. the Main Forms of Enterprise Marketing Risk**

### **2.1 Product Risk**

Product Risks Mainly Include the Following Two Types: First, Product Design Risks. the Design Here May Be More Avant-Garde Than the Customer's Demand At That Time, or It May Be in a Backward State. the Second is the Risk of Product Functional Quality, That is to Say, the Enterprise Products Are Insufficient or Surplus in Functional Quality, Resulting in Products That Are Difficult to Meet Consumer Needs. Consumer Behavior Refers to the Behavior Process of Consumers Seeking, Purchasing, Using, Evaluating and Disposing Commodities in Order to Meet Their Needs. If the Marketing Risk Leads to the Interruption of the Enterprise's Production Link, the Loss is Very Huge. Even If It Does Not Lead to the Survival Crisis of the Enterprise, the Cost of Resuming the Interruption and Occupying the Market is Very Heavy. the Individuation of Consumers Indirectly Forms the Difference of Consumption Demand, and in Addition, the Influence of Other Factors Also Tends to Differentiate Mass Consumption [10]. More and More Consumer-Oriented Forms of Consumption Are Being Formed in the Market. Consumers' Requirements for Commodities Are Also Higher and Higher. in the Face of Different Groups, There Are More and More Requirements for Commodity Prices, Styles and Even Supporting Services, after-Sales Protection, Etc. a Person Comes from Birth to Finally Leave This World. At Different Stages of Life, His Values, Pursuit of Goals and Ability to Act Determine the Difference in His Consumption. an Accurate Understanding of Consumer Behavior Can Help Enterprises Formulate Corresponding Marketing Strategies by Studying Consumer Needs, Habits and Behaviors.

### **2.2 Pricing Risk**

The so-called pricing risk is restricted by a variety of factors, and there are improper ways for enterprises to set product prices. As a result, problems such as damage to the interests of enterprises, damage to the interests of consumers, and fierce competition among enterprises are easily caused. Pricing risks are roughly reflected in the following aspects: first, low-price risks, which lead consumers to distrust or doubt the quality of products based on low prices. If price reduction is used in marketing, the sales volume of products may not necessarily increase. It may also cause price competition among industries, resulting in vicious price competition, which is not conducive to the development of enterprises. The second is the risk of high prices. If the price is too high, we will lose the low-income group. When pricing a product, an enterprise sets a higher sales price. The enterprise has a better income and will attract some investment funds. However, the excessively high price affects the sales of the product, making it difficult to realize the expected income from poor sales. Third, the risk of price changes is often caused by improper competitive measures taken in the marketing process, such as vicious price wars. In the purchasing activity, it can be said that there is no certain difference in the purchasing behavior between any two consumers [11]. Risk has variability and complexity. On the one hand, the influencing factors of risk have variability and complexity. In risk research, these factors may change at any time and the process, rule and relation of change are very complex.

## **3. Evaluation Index System of Marketing Risk.**

The change of product sales from product-centered to market-oriented is mainly due to the increasingly important role of consumers in the market. Their consumption psychology determines

their consumption behavior, which in turn determines the formulation of business marketing strategies. In order to enable enterprises to sustain marketing and operation despite of marketing losses, it is necessary to carry out correct information analysis on marketing. Modern emerging enterprises are mainly consumer-oriented, using relatively low costs to promote, using a variety of goods to attract consumers to achieve the purpose of marketing. Risk is formed under the joint action of many factors, and its evaluation is a comprehensive and whole-process behavior, which is complex and variable. Therefore, the understanding of risks should maintain a dynamic and flexible concept, respond to the occurrence of risks anytime and anywhere, minimize the possible losses faced by enterprises, and maximize the interests of enterprises [12]. Consumers in different regions pay different attention to different hot spots. When formulating marketing strategies, enterprises should grasp consumers' purchasing psychology and consider the impact of hot spots on consumer behavior. Market demand and competition pattern are changing rapidly. It is hard to imagine that only through correct analysis of marketing risk information can enterprises survive and develop in such a fierce and turbulent market environment.

Sensitivity analysis can be carried out on each influencing factor of a single project, and risk management can be carried out on the project from the analysis results. Take Project 2 as an example. When each risk factor changes by 10%, the changed risk evaluation value is shown in the table. The analysis results in Table 1 show that the project is the most sensitive to management risks and the least sensitive to financial risks. The relationship between risk evaluation and changes in risk factors is shown in Figure 1.

Table 1 Risk Assessment Sensitivity Analysis

|                     | Evaluation value | Post-change score |
|---------------------|------------------|-------------------|
| Environmental risks | 0.585            | 0.745             |
| Production risk     | 0.674            | 0.693             |
| Managing risks      | 0.537            | 0.769             |
| Technical risk      | 0.748            | 0.737             |
| Market risk         | 0.612            | 0.623             |

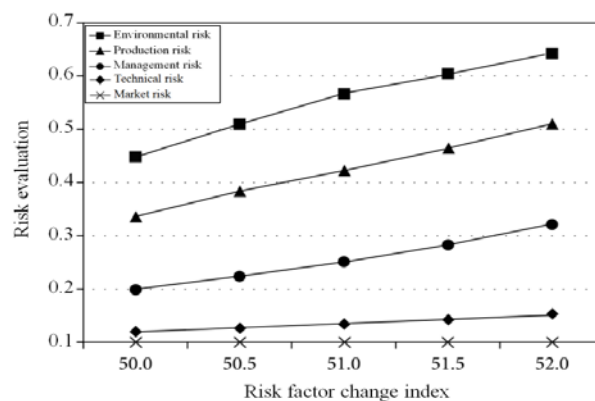


Fig.1 Relationship between Risk Assessment and Risk Factors

Perform hierarchical single-ordering and verify the consistency of the pairwise comparison matrix, and if necessary, make corrections to achieve consistency that can be corrected. Hierarchical single sorting is to determine the degree of influence of a certain level of factors on a certain factor of the previous level, and sequentially discharge the order. According to the matrix theory, the eigenvector of the judgment matrix is obtained by mathematical calculation. This eigenvector represents the degree of influence of some factors of the hierarchy on a certain factor of the upper level. Using the square root method, the approximate value of the index weight is calculated.

Calculate the product of the elements of each row of the judgment matrix:

$$R_i(p_{1i}, Q_i) = p_{1i} \cdot \min(I_i + Q_i, D_i) - (p_{0i} \cdot Q_i + C_i \cdot AI_i) + R_{i-1} \quad (1)$$

Calculate the power root of the feature quantity:

$$E_{RME} = \sqrt{\frac{1}{P} \sum_{p=1}^P (E_p)^2} \quad (2)$$

Normalize the vector:

$$I_{t+1} = I_t + Q_t - \min(I_t + Q_t, D_t) = \max(I_t + Q_t - D_t, 0) \quad (3)$$

The vector  $n$  is the weight vector obtained, and the maximum eigenvalue  $P$  of the matrix is found:

$$p(x, y) = \frac{\sum x_1 y_1 - n \bar{x} \bar{y}}{(n-1)s_x s_y} = \frac{n \sum x_1 y_1 - \sum x_1 \sum y_1}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum y_1^2 - (\sum y_1)^2}} \quad (4)$$

After establishing the risk evaluation index system of the target enterprise, the analytic hierarchy process can be used to comprehensively evaluate the risk of the project. Compare the relative importance of each factor in the same level with respect to the same factor of the previous level, and construct a pairwise comparison matrix. Compare the peer indicators and give the scale score according to the relative importance of the indicators. After processing, a judgment matrix of weights is constructed. According to the sample data, the statistical results of the comparison of the first-level indicators and the two-level comparisons of the two-level indicators are shown in Table 2.

Table 2 Market Environmental Risk Comparison Data Results

|                           | System data security risk | Financial risk | Industrial policy risk |
|---------------------------|---------------------------|----------------|------------------------|
| System data security risk | 1                         | 0.52           | 0.51                   |
| Financial risk            | 0.73                      | 1              | 0.58                   |
| Industrial policy risk    | 0.68                      | 0.71           | 1                      |

Enterprises should analyze the psychological and behavioral characteristics of consumers according to different consumer groups, and grasp the main factors in the psychological factors of consumers. Information analysis of marketing risks refers to the analysis of relevant information of marketing risks by specific methods, so that enterprises can reduce the loss and dispersion of system risks, avoid the loss of company-specific risks, and thus obtain maximum benefits [13]. Beliefs can be based on knowledge or opinions or trust. The price factor is the first consideration when an enterprise formulates a product marketing strategy, and the price of the product should be determined according to the actual situation. The goal of long-term marketing risk analysis is often focused on risk early warning, so its information analysis method is mainly based on information early warning analysis. Compared with commodities they do not know, consumers are more willing to choose what they know so as to reduce the risk of purchase. Therefore, the promotion of commodities is also a link to create value for commodities. The quality of products should also be guaranteed. Pursuing the actual use value of products is a factor that every consumer values. Therefore, the quality must be guaranteed. This is also an effective way to accumulate public praise. Perfecting the enterprise marketing risk management system can make the enterprise risk prevention measures come true, various departments can cooperate more closely, scientifically and effectively evaluate the possibility, time and consequences of risk occurrence, improve the enterprise's ability to deal with risks, and also make the responsibility of risk prevention come true.

#### 4. Conclusion

The risk of marketing exists objectively, but it cannot hinder the development of the enterprise. In the process of enterprise operation, we should pay attention to the evaluation of enterprise marketing risk and scientifically and accurately estimate the occurrence probability, occurrence time and consequences of the risk. There is no fixed pattern of consumer purchasing behavior. With the development of social economy, people's consumption habits and purchasing behavior will inevitably change. Consumer psychology and consumer behavior have an important influence on the formulation of enterprise marketing strategies. Enterprises can summarize different consumer

psychology and consumer behavior according to the economic development of different cities, and then formulate more targeted marketing strategies. It is recommended to pay attention to the role of employees, strengthen employee training, especially in terms of moral quality and business ability. When necessary, employees' quality training should be taken as a long-term task of the company. Formulating an effective risk prevention strategy is of great significance for improving the competitiveness of the enterprise market and enhancing the corporate image. Market demand and the competitive landscape are changing rapidly. It is hard to imagine that only with the correct analysis of marketing risk information can enterprises survive and develop in such a fiercely volatile market environment.

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