

## Research on the Construction of Evaluation Index System of Marketing Competitiveness Based on Consumer Purchase Behavior

Yanxia Zhang, Xiang Gao\*

Guangzhou College of Technology and Business, Guangzhou, Guangdong Province, China

\*Corresponding Author

**Keywords:** Market Economy, Marketing Competitiveness, Evaluation Index System, Purchase Behavior

**Abstract:** with the Continuous Development of Market Economy and Information Technology, Marketing Competitiveness Has Become the Basis for Enterprises to Survive, But There is No Perfect Index Evaluation System for Marketing Competitiveness. under the Background of Market Economy, Major Enterprises Must Go Deep into the Market and Actively Face the Adjustment Given by the Market Environment and Other Similar Enterprises. Enterprise's Marketing Competitiveness is That Enterprises Use Their Own Resources to Formulate Marketing Strategies and Tactics. in Addition, It is Effectively Implemented in a Competitive Market Economy, So as to Obtain Comparative Advantages, Create Value, Realize Interest Growth, and Enhance the Dominant Position of Enterprises in the Market. Modern Enterprises Need to Use a Variety of Scientific and Effective Research Methods. When Measuring the Comprehensive Competitiveness of Enterprises, the Evaluation Index System Can Be Applied. Based on the Analysis of Consumers' Purchase Behavior, This Paper Studies the Construction Strategy of the Evaluation Index System of Marketing Competitiveness, in Order to Give Full Play to the Marketing Competitiveness of Enterprises.

### 1. Introduction

For Enterprises, Marketing Competitiveness is a Very Important Resource, Which Plays a Very Important Role in the Fierce Market Competition and is Also the Embodiment of the Advantages of Enterprises [1]. Marketing Competitiveness Refers to the Ability of an Enterprise to Obtain Comparative Advantages in Market Competition through Systematic Marketing Efforts, Create Customer Value, Achieve Mutually Beneficial Exchange, and Realize the Goals of the Enterprise and Relevant Stakeholders According to the Marketing Environment and Its Own Resource Conditions [2]. When Determining the Future Development Plan, Modern Enterprises Need to Take into Account Various External Factors That Will Affect the Transformation of Enterprises as Well as Their Own Factors. Market Research is a Preparatory Work for the Development Plan Formulation Process [3]. Consumer Shopping Behavior Analysis is the Basis of Marketing Success. by Understanding How Consumers Generate Demand, Find Information, Evaluate Behavior, Determine Purchase and Post-Purchase Behavior, It is Important for Product Positioning and Marketing Strategy Formulation [ 4]. on the Basis of the Overall Law of the Market Economy, the Principle of Enterprise Marketing Competitiveness Evaluation is Scientific and Practical. Marketing Competitiveness is an Emerging Theory of Enterprise Competitiveness. Practice Has Proved That Marketing Competitiveness Constitutes an Important Part of Core Competitiveness, and Core Competitiveness is the Basis for Enterprise Survival and Development [5].

Marketing Competitiveness Plays a Very Important Role in the Theory of Enterprise Competitiveness. More and More Evidence and Research Show That Core Competitiveness is the Deep Foundation for Enterprises to Survive and Develop in the Long Run, and Marketing Competitiveness is the Most Important Component of the Core Competitiveness of Enterprises [6]. the Correct Marketing Competition Behavior Can Be Given after Clearing Its Own Marketing Competitiveness. the Application of the Evaluation Index System Can Help the Staff to Fully

Clarify the Inadequacies of Marketing Competition [7]. through Analysis and Understanding of the Personality Trends and Purchasing Behaviors of Various Consumers, Different Consumer Groups Can Be Used to Formulate Different Product Combinations and Price Combinations for Different Consumer Groups, and More Reasonable Design of Marketing Plans to Develop the Most Consistent Marketing Strategy of the Market [8]. under the Current Situation, How to Build a Marketing Competitiveness Evaluation Index System Has Become an Important Research Topic. Emphasis on Marketing Competitiveness Will Play a Key Role in the Position of Enterprises in the Market. the Theoretical Circles Began to Explore the Establishment of Enterprise Marketing Competitiveness Evaluation Index System. the Purpose of the Evaluation Index System Design is to Improve the Marketing Competitiveness of Enterprises [9]. Based on the Analysis of Consumer Purchasing Behavior, This Paper Studies the Marketing Competitiveness Evaluation Index System Construction Strategy, Aiming At Better Exerting Marketing Competitiveness for Enterprises.

## **2. Marketing Strategies Before Consumer Purchase Behavior**

### **2.1 Make Consumers Produce Consumption Motivation**

Consumers' Buying Behavior is First Stimulated, Such as the Product Itself, Advertising, Income, Self-Needs, Etc. Enterprise Marketing Resources Come from a Wide Range of Sources, Which Are Uniformly Allocated by Enterprises, Thus Forming Marketing Competitiveness. Marketing Can Create Value and Enable Customers to Maintain Cooperative Relations with Enterprises. Broadly Speaking, Marketing Includes Business Activities, Advertising Campaigns for Activities, Services for Customers, Etc. in Marketing, It is Necessary to Timely Grasp the Information Trends, Collect Market Intelligence, and Use Information Feedback Channels Such as Distributors and Stores to Understand the Market Situation and the Current Situation of Competitors [10]. the Marketing Strategy is to Strengthen Consumers' Sense of Inadequacy, to Further Stimulate Consumption Needs, to Try to Make Them Reach Sufficient Intensity, and to Provide Targeted Products That Can Meet Their Needs, So as to Finally Transform Consumption Needs into Purchase Motives. Marketing Resources Have Double-Sided Characteristics. Not Every Marketing Resource Plays a Role in Marketing Strategy. However, Some Marketing Resources Are Idle and Useless to Enterprises, and These Resources Are Ineffective Resources. the Core of Marketing Work is the Customers Owned by the Enterprise, Providing Customers with High-Quality and Reliable Marketing Services, While Forming Stable and Harmonious Commercial Relations with Customers is Crucial for Enterprise Competition. What the Interpretation of Contradictory Cases Really Defends is Not the Existing Marketing Theory and Index System, But the Development of Truth and Truth Recognized in the Field of Marketing.

### **2.2 Promote Consumers to Convert Their Purchasing Motivation into Purchasing Behavior**

Sales work is the key work of most modern enterprises, which is directly related to the final income of enterprises. The sales work of modern enterprises is also more complicated. Without the restriction of management personnel, sales work is easy to get out of control. When consumers begin to collect information about products after they have consumption needs, then as sellers, they should try their best to pass the information about products to the target consumer group and strive for a good reputation. Human beings often attach great importance to the relationship between people in their life in society, hoping to become visible or invisible members of a certain group or organization and gain people's attention and friendship. When consumers have enough information, they will start to analyze and evaluate the products, continue to publicize the products, try to understand and relieve consumers of all kinds of purchasing worries, and try to make consumers feel the functions of the products themselves before purchasing [11]. Enterprises can predict and evaluate their marketing competitiveness according to the situation of market competitors. Based on the analysis and consideration of the results, not only can we get the status quo of the marketing competitiveness of enterprises, but also help enterprises to formulate relevant strategies. The purpose of enterprise marketing is to improve the profitability of the enterprise and its dominant

position in the market, so marketing performance should be used to determine whether the marketing competitiveness is successful. In order to make consumers feel that the perceived value of the product is obviously higher than the price of the product, and then take appropriate preferential promotion measures to strengthen the consumer's purchase determination, so as to urge the consumer to finally put the purchase decision into action, that is, the purchase behavior occurs.

### 3. The Basic Framework of Evaluation Index System for Enterprise Marketing Competitiveness

#### 3.1 The Components of Enterprise Marketing Competitiveness

or occurs.

Product innovation and development cannot be separated from technological innovation, but product innovation and development can be successful only when technological innovation is consistent with market demand and human nature and has advantages different from competitors. Under the background of global economic development, domestic enterprises are facing severe adjustments and the degree of environmental development is also increasing. From the perspective of the long-term development of the enterprise, every employee has creative ideas and potential. The so-called managers' responsibility is to stimulate and tap the potential of employees. In essence, the change of marketing mode is the process from mass marketing to focus marketing. With the continuous development of the market economy and changes in consumer demand, market refinement oriented by consumer's individual needs has become an inevitable trend in marketing [12]. The ability of product innovation and development is essentially the ability of enterprises to use market segmentation and market positioning strategies to control the direction and speed of technological innovation and application. Judging from the transmission of customer value and the realization of commodity value, supply chain management not only provides product power for enterprise marketing competition, but also provides sales power for enterprise marketing competition together with sales management.

In the enterprise marketing, the marketing behavior always decides whether the goal of the marketing activity is successfully realized and whether the measures established by the marketing purpose are finally implemented. The data mining process in financial analysis generally consists of five main stages: determining financial analysis objects, data preparation, data mining, result analysis and knowledge assimilation, as shown in Figure 1.

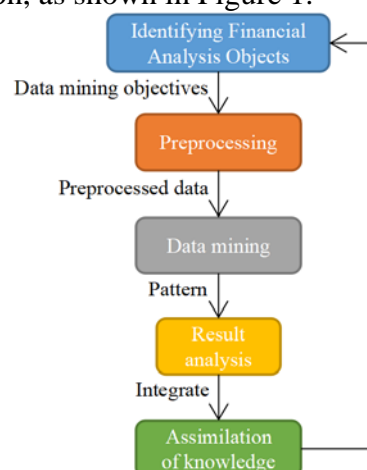


Fig.1 Data Mining Process in Financial Analysis and Management

#### 3.2 Evaluation Index of Enterprise Marketing Competitiveness

The operability of the marketing competitiveness index evaluation system can be explained from two aspects: on the one hand, the system should be practical and feasible; On the other hand, it should be theoretically practical. Ability determines performance, performance reflects ability, and certain marketing competitiveness corresponds to certain marketing performance. As for the ability

to achieve the goal, that is, the ability to achieve the expected goal in the market competition. Marketing executive ability is the ability to accomplish marketing tasks through the optimal allocation of enterprise resources [13]. Only relying on the conventional sales management method cannot ensure the comprehensiveness of the management task, so the index evaluation method should be selected to determine whether the sales management work is reasonable. In order to eliminate the influence of different dimensions of original data, data preprocessing is carried out based on data mining. The collected original data need to be standardized. The standardized formula is:

$$n = \sum_{i=1}^R P_i W_{i,j} + b \quad (1)$$

Need to meet:

$$n = W * P + b \quad (2)$$

The degree of closeness between the two indexes can be measured by the distance between two points in the P-dimensional space. Define distance formula:

$$y_i = f \left( \sum_j w_{ij} x_j - \theta_i \right) \quad (3)$$

Next, after an in-depth analysis of the financial parameters of the five sample enterprises, data processing is carried out on the parameters with several important characteristics. Give the capital evaluation value, so that the basic learning sample table of the capital evaluation model can be obtained. After the sample form is established, the opinions of the expert judges are required, and appropriate amendments are made to obtain the final financial analysis as shown in Table 1.

Table 1 Enterprise Financial Analysis Condition Parameter Learning Sample

| Serial number | Liabilities | Profit | Loan  |
|---------------|-------------|--------|-------|
| 1             | 0.335       | 0.488  | 0.431 |
| 2             | 0.529       | 0.512  | 0.493 |
| 3             | 0.456       | 0.554  | 0.364 |
| 4             | 0.494       | 0.612  | 0.536 |
| 5             | 0.621       | 0.694  | 0.673 |

In order to establish the testing mechanism of the model, the fourth and fifth sample enterprise financial analysis parameters are used as input data for financial analysis value evaluation. And picked up the output data and learning sample data for comparative analysis, as shown in Table 2.

Table 2 Enterprise Financial Analysis Model Test

| Serial number | Sample result | Relative error (%) | Model output |
|---------------|---------------|--------------------|--------------|
| 4             | 0.623         | 5.28               | 0.674        |
| 5             | 0.646         | 2.59               | 0.713        |

Taking the variance contribution rate of each factor as the weight, the comprehensive evaluation index function is obtained from the linear combination of each factor. When the cumulative contribution rate of the factors is 80%, the first N factors can be taken to reflect the original evaluation index:

$$O_i = f \left( \sum_i T_{li} - \theta_i \right) \quad (4)$$

Divide the financial situation of the enterprise so as to make a reliable estimation of its future development. The model is:

$$w_{ij}(k+1) = w_{ij}(k) + \eta \delta_i x_j \quad (5)$$

In the whole circulation system, the financial strategy is the core strategy of the enterprise's functional strategy, providing financial support for the enterprise's strategy and managing to improve the value of economic activities. According to the system architecture and data operation level in the previous section, financial analysis data as shown in Table 3 are obtained.

Table 3 Financial Analysis And Evaluation of Enterprises

| Factor     | Liabilities | Profit | Loan  |
|------------|-------------|--------|-------|
| Evaluation | 0.478       | 0.632  | 0.621 |

In order to deeply explore the evaluation rule of marketing competitiveness index, we must grasp the universality and particularity of marketing competitiveness rule. Corresponding to the constituent elements of enterprise's marketing competitiveness, the evaluation indexes of enterprise's marketing competitiveness can be divided into the following five categories: 1. Evaluation indexes of product innovation and development capability; 2, quality management ability evaluation index; 3, brand management and marketing communication ability evaluation index; 4, supply chain and sales management capability evaluation index; 5, service and customer relationship management ability evaluation index. In a period of time, change a certain marketing competitiveness variable of a certain enterprise while other conditions remain unchanged, and determine and adjust the weight of a certain marketing competitiveness index according to the degree of change in the marketing performance of the enterprise.

#### 4. Conclusion

The marketing competitiveness of an enterprise is to make use of existing resources, formulate effective marketing strategies, and effectively implement them in the fierce market competition, so as to enhance the dominant position of the enterprise. With the development of marketing theory, new concepts, viewpoints and methods have emerged and been applied in the marketing practice of enterprises, and have been tested and developed in practice. Based on the analysis of consumers' purchasing behavior, this paper constructs an evaluation index system of marketing competitiveness, aiming to truly realize the competitive advantage of enterprises, realize the profit goal of enterprises, and realize the goal of providing effective products for consumers. The evaluation system of marketing competitiveness index accurately predicts the overall marketing competitiveness of enterprises and the weak links in the marketing development process, which plays a directional guiding role in reducing the marketing risks of enterprises, realizing benefit exchange, accumulating brand assets and establishing perfect communication channels. We should constantly absorb and learn from the new marketing theories and methods that have been tested in practice to perfect the evaluation index system of enterprise marketing competitiveness. Managers can change their marketing methods according to the existing marketing competition defects, keep up with market changes, and flexibly handle marketing tasks, so as to promote enterprises to obtain stable and reliable opportunities for progress in a competitive market environment.

#### Acknowledgement

Project Fund: 2018 General Project of the 13th Five-Year Plan for the Development of Philosophy and Social Science in Guangzhou, No.2018GZYB134.

#### References

- [1] Doncic D, Nenad Perić, Prodanovic R. Holistic marketing in the function of competitiveness of the apple producers in Bosnia and Herzegovina[J]. Economics of Agriculture, 2015, 62(2):309-323.
- [2] Dotoli M, Epicoco N, Falagario M, et al. A Nash equilibrium simulation model for the competitiveness evaluation of the auction based day ahead electricity market[J]. Computers in Industry, 2014, 65(4):774-785.
- [3] Ming G, Yan C. Evaluation Methods and Application of Environmental Protection Enterprises'

- Market Competitiveness[J]. Journal of China University of Petroleum, 2014, 18(1):1-16.
- [4] Zhongfu W, Yanhong F. Evaluation model of economic competitiveness based on multi-layer fuzzy neural network[J]. Cluster Computing, 2018(39):1-8.
- [5] Fauzan M I R, Yuniaristanto, Hisjam M, et al. Assessment of University Spin-Off Company Competitiveness Based on Products Performance and Expert Opinion: A Case Study on Bioproduct Based Spin-Off Company[J]. Journal of Computational and Theoretical Nanoscience, 2017, 23(9):8737-8740.
- [6] Dunnan L, Yaru M. Analysis on Competitiveness of Electricity Retailers Considering Non-price Factor[J]. Automation of Electric Power Systems, 2017, 41(23):53-60.
- [7] Setyawan A A, Isa M, Wajdi M F, et al. An Assessment of SME Competitiveness in Indonesia[J]. Journal of Competitiveness, 2015, 7(2):60-74.
- [8] Segundo Castro-González, Jesús C. Peña-Vinces, Guillen J. The competitiveness of Latin-American economies: Consolidation of the double diamond theory[J]. Economic Systems, 2016, 40(3):373-386.
- [9] Eduardo Parra-López, Juan Ramón Oreja-Rodríguez. Evaluation of the competitiveness of tourist zones of an island destination: An application of a Many-Facet Rasch Model (MFRM)[J]. Journal of Destination Marketing & Management, 2014, 3(2):114-121.
- [10] Fuyi C I, Yaping H U. A Study on Low Carbon Competitiveness Evaluation in the Ocean Economic Zone[J]. Applied Mechanics & Materials, 2015, 768(5):652-659.
- [11] Wang X, Liu J, Ma C. A research on the cluster competitiveness evaluation of the Chinese automobile industry based on cuckoo-AHP[J]. Chinese Management Studies, 2016, 10(4):746-769.
- [12] Zhao B, Zhang D S, Zhao Y Z. Construction Competitiveness Evaluation System of Regional BioPharma Industry and Case Study: Taking Shijiazhuang as an Example.[J]. International Journal of Advanced Pervasive & Ubiquitous Computing, 2017, 3(2):13-20.
- [13] Zhang W, Deng F, Liang X. Comprehensive Evaluation of Urban Competitiveness in Chengdu Based on Factor Analysis[J]. Advances in Intelligent Systems and Computing, 2015, 362:1433-1440.