A Strategic Environmental Analysis Framework Based on Business Ecosystem Theory

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Abstract. As the complexity of the internal and external environment increases, companies are increasingly demanding strategic management decisions. At present, the analysis of corporate strategic environment is dominated by qualitative methods. Advances in technologies such as big data analysis and text information analysis have brought new methods and tools to strategic management. Based on the theory of business ecosystem, this paper attempts to use these tools to build a strategic environment analysis mining machine. It will support corporate strategic decision-making and improve the scientific level of strategic management.

Introduction

With the rapid development of new generation information technologies such as cloud computing, traditional industries and the Internet have accelerated integration. Industrial organizations, business models and resource allocation methods have undergone profound changes. Due to the increasingly fierce cross-border competition, companies have to actively integrate into the "Internet +" development trend. They should use the "Internet +" thinking to plan new business, innovate new operating mechanisms, and expand a new profit model. It is urgent to construct a complete dynamic analysis method of strategic environment, strengthen the timely tracking, monitoring and analysis of the external environmental dynamics, and accurately judge the company's strategic environmental situation. However, the research on corporate strategy is mainly based on qualitative analysis and expert discussion. Few studies use quantitative tools, especially data mining, text information analysis and other advanced tools to analyze corporate strategies.

Based on the theory of business ecosystem, this paper describes the “ecological circle” in which enterprises are located. Then it constructs a corporate strategic environment scanning analysis response framework, which is divided into four stages: environment layer, scanning layer, analysis layer and output layer. It realizes the scientific output of enterprise strategic environment scanning monitoring, strategic environment dynamic identification, strategic environment visualization analysis and decision-making suggestions. Finally, it proposes the strategy environment analysis from several aspects.

Theoretical Basis and Model Construction

Business Ecosystem Theory

American strategist Moore (1967) first proposed the concept of "commercial ecosystem." He believes that the business ecosystem is an economic union based on the interaction of organizations and individuals. The business ecosystem consists of interrelated, dynamic business organizations including suppliers, vendors, social public service organizations, and consumer customers. From the structural characteristics, the business ecosystem mainly includes core products and service providers, complementary alternative products and service providers, industry (standardization) associations, scientific research institutions and industrial policies. Among them, core products and
service providers are the foundation of the business ecosystem and the builder and maintainer of the business ecosystem. Complementary alternative products and service providers are the backbone of the business ecosystem and the expanders and builders of the business ecosystem. From the perspective of functional effects, the function of the commercial ecosystem is mainly to foster a platform for value sharing. Core products and service providers play a leading role in fostering value sharing platforms. It is not an exclusive value, but a value trigger. Complementary alternative products and service providers play a supporting and supporting role in fostering value sharing platforms. It is both a value occupant and a value-increasing container.

**Strategic Environment**

The strategic environment consists of three parts, the overall environment, the industry environment and the competitor environment. The overall environmental analysis is the trend and impact of the environment. The focus of the industry's environmental analysis is to understand the factors and conditions that affect the company's profitability. The analysis of competitors is mainly to predict the actions, reactions and intentions of competitors.

The overall environment consists of all the factors that influence the industry and the company in society, population, economy, political law, social culture, technology, globalization and sustainable natural environment. Companies often cannot directly control the overall environment. Therefore, the company pursues the trend of identifying each of the factors in the overall environment and predicts the impact of each trend on the company. The industry environment is a set of factors that directly affect the company and its competitive actions and reactions. It includes new entrant threats, supplier forces, buyer power, threats to alternatives, and the intensity of competition among existing competitors. Competitor analysis is the collection and interpretation of competitor information. An understanding of the competitor's environment is a necessary complement to the study of the overall environment and the industry environment. Competitors analyze companies that focus on direct competition, such as Coca-Cola and Pepsi, Amazon and Google. The information the company understands in the competitor analysis includes: the future goals of the competitors, the current strategy, the perception of the industry, and the ability.

**Analytical of Enterprise Ecosystems**

Based on the theory of business ecosystem, the “ecosphere” in which the company is located is a collection of interactive entities and their relationships. There are strong links and weak links between different subjects in the “ecosphere”. According to the strength and weakness of the relationship with the company, it can be divided into core interactive subjects, platform related subjects and macro environmental elements. The core interactive entities of the company can be divided into supply side, demand side, policy and system side, competition side and other stakeholders. The company and the core interactive entities jointly built a network platform to attract all kinds of small and micro-subjects to play a role together to maintain and promote the stable development of the ecology. The macro environmental factors mainly include the economic environment, the natural social environment, the scientific and technological environment, the political environment, and the international environment. The volatility changes of macro-environmental elements, together with other external environments, constitute opportunities and challenges in the analysis of corporate strategic situation. The ecological circle in which the company is located is shown in the figure below.
Figure 1. Strategic environmental analysis framework based on business ecosystem theory.

Analysis Process of Enterprise Strategic Environment

The strategic environment scanning analysis framework of the business ecosystem-based company constructed in this paper mainly includes four levels: environment layer, scanning layer, analysis layer and output layer.

The first layer is the environmental layer. Fluctuations and changes in the external environment are the input to the company's strategic environmental analysis system. Combined with the analysis of the company's ecosystem in the previous section, the elements of the environmental layer refer to what needs to be tracked and monitored in the company's ecosystem, and what specific aspects are included in the environmental dimension and detailed categories.

The second layer is the scanning layer. The company quickly captures and identifies fluctuations in the external environment through different channels. The main body of the environmental scan is both inside the company system and external third-party forces. The scanning monitoring mechanism, content, channels and methods for environmental tracking of different scanning subjects have their own characteristics.

The third layer is the analysis layer. On the basis of identifying environmental changes, enterprises mobilize public resources, select appropriate methods in the environmental analysis method library for specific problems, and study the potential impact of external environmental changes on the company's specific business links.

The fourth layer is the output layer. Strategic environmental analysts give an overall assessment of the recent environmental situation of the company, as well as forming response plans and proposing countermeasures.

Summary

Based on the theory of business ecosystem, this paper first analyzes the “ecological circle” in which enterprises are located. Then a framework for the analysis and response of the enterprise strategic
environment was constructed. It realizes the scientific output of enterprise strategic environment scanning monitoring, dynamic identification of strategic environment, visual analysis of strategic environment and decision-making recommendations.

Reference


