Competitive Evaluation of Multinational Enterprises: A New Method and Case Studies

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Abstract. The global political and economic landscape is in a state of constant flux, rendering traditional competitiveness evaluation systems obsolete in the face of emerging challenges. This paper addresses the need for a new competitiveness evaluation system tailored to the dynamics of multinational enterprises. We present the design of an innovative competitiveness evaluation framework and apply it to analyze two industry giants, Apple in the United States and CATL in China. Our findings reveal that, within the current world paradigm, Apple exhibits greater competitiveness compared to CATL.

Furthermore, our study underscores the dynamic nature of the competitiveness relationship between the two companies, suggesting that it evolves in tandem with shifts in the global landscape. As such, any characterization of their competitive standing cannot be generalized but is contingent on the prevailing world order. Additionally, we emphasize that a company's overall competitiveness stems from the amalgamation of various indicators. Notably, while Apple lags behind CATL in terms of financial capacity and ESG evaluation indicators, it ultimately attains a higher competitiveness score.

Keywords: Multinational Companies; Corporate Competence; Geopolitics; Potential Competitors; Evaluation System.

1 Introduction

Hamel and Prahalad highlighted the significance of core competencies, defining them as the organizational capability to effectively allocate diverse technologies and skills, thereby enhancing overall value creation within the firm [1]. Furthermore, the characteristics of core competitiveness can be delineated into four distinct dimensions: Firstly, it involves delivering products that align with customers' expectations, ensuring that the value provided meets their requirements. Secondly, core competitiveness extends to a company's ability to generate a variety of commodities through competitive advantages, thereby addressing diverse consumer needs. Thirdly, it encompasses the notion of specialty, denoting that a company's competencies are exclusive and not shared by other enterprises. Lastly, the concept of dynamic core competencies recognizes that

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competencies evolve in response to technological advancements and scientific innovations. This dynamic nature underscores the need for continual adaptation and development to remain competitive in a changing landscape [2].

To underscore the significance of studying companies' core competence, it is imperative to delve into the international political environment that encompasses these enterprises. Historically, the roots of globalization can be traced back several centuries to 1405 when the first Chinese armada set sail for the West, marking the initiation of global interconnectedness. However, it wasn't until the early 19th century that globalization assumed greater economic relevance. In contemporary terms, globalization is widely recognized as the dissemination of technology and products [3]. Simultaneously, numerous companies are actively engaged in promoting the worldwide dissemination and sales of their products, contributing to a 7.2% increase in global trade volume in October 2020 [4]. Nevertheless, the trajectory of international trade has encountered impediments due to conflicts between nations, resulting in a noticeable decline in trade volume. A report from the World Trade Organization (WTO) projects a modest growth of approximately 3.3% in trade volume for the year 2024, indicating the impact of geopolitical tensions on global economic interactions [5]. This underscores the intricate relationship between international politics and the economic activities of companies operating on a global scale.

Over the past decade, a notable paradigm shift has unfolded in the cross-border dynamics governing the flow of capital, technology, and goods. This departure from the historical trend of unilateral exportation from developed to developing nations signifies a transformative evolution in global economic interactions. Notably, an increasing number of governments in developing countries have turned their attention to the development status of domestic enterprises, actively striving to elevate them to the status of large enterprises in developed nations. This endeavor has led to a gradual convergence of the roles played by domestic and foreign enterprises, signifying a reciprocal exchange in their role relationships. In the competitive landscape, enterprises that were once vulnerable to those from developed countries are now posing threats in return. A compelling example is the evolution of China's products, once regarded as low in quality and non-threatening. However, recent advancements in technology have facilitated the production of high-tech products, such as TikTok, which has garnered widespread acceptance among consumers. In some cases, these products have outperformed their counterparts from developed countries to such an extent that local governments find it necessary to implement policies to curb this trend [6].

Therefore, the analysis of core competence emerges as a crucial tool to aid emerging companies in adapting more effectively to this evolving environment. By doing so, these companies can not only generate substantial profits but also successfully outperform their competitors.

2 Literature Review

A comprehensive body of literature has thoroughly examined corporate core competence from various vantage points. Lu et al. delved into the entry process of Baosteel

Group into the automotive panel market, underscoring organizational capability as the foundational source of competitive performance disparities among enterprises [7]. Offering a distinct perspective, Yu and Yan advocated for senior management's concentrated efforts in establishing and enhancing innovation systems to fortify competitive advantages [8]. Their research, incorporating questionnaire surveys, validated the positive impact of the interplay between technological innovation and business model innovation on enterprise competitive advantage. In a different vein, Xu and Dan underscored the significance of creatively aligning resource modules by Emerging Market Multinationals (EMNEs) to elicit synergistic effects, thereby adding value in identified opportunities [9]. Through a multi-case comparative study, they investigated how EMNEs navigate uncertain emerging market environments while contending with resource constraints, ultimately gaining a competitive edge. This insightful exploration contributes to a deeper understanding of how companies in emerging markets strategically maneuver within challenging contexts to achieve and sustain competitiveness.

Moreover, various theories posit the crucial role of geopolitics. Fadye contended that local government restrictions on a company, such as prohibitions on marketing products in specific locations, can significantly impact the company [10]. However, the company can overcome such challenges by innovating and progressing in technological products, making it challenging for local government departments to sever ties with the company. Fadye's examination included a discussion on the sanctions imposed on Huawei by the US government, revealing that Huawei's development of high-tech products, such as 5G, has rendered the sanctions less effective.

Bambang Sukma Wijaya emphasized the pivotal role of brand image in corporate development [11]. Brand image, influencing brand reputation and credibility, plays a decisive role in shaping consumer perceptions and preferences, ultimately determining consumer loyalty to a brand. This underscores the intricate interplay between brand perception and long-term consumer allegiance. Building on the significance of evaluation systems, Zhang and Zuo asserted that the Enterprise Evaluation Competitiveness Index System serves as a critical foundation for enterprise development [12]. Recognizing the limitations of the original competitiveness evaluation system in adapting to contemporary changes, they advocated for a continuous process of improvement through ongoing discussion. They recommended the establishment of a comprehensive, specific, and scientific enterprise competitiveness evaluation index system and model. Furthermore, Hafeez et al. discovered that, even if a company identifies its core business as manufacturing engineering, its core competitiveness may lie in sales and marketing [13]. Their analysis using a unique evaluating system revealed that a new and distinct competitiveness evaluation system can unveil aspects that traditional evaluation systems may overlook. This underscores the importance of developing innovative evaluation frameworks to capture nuanced dimensions of a company's competitiveness.

In light of the evolving global landscape, the existing evaluation system can only provide a partial reflection of the competitive dynamics among multinational enterprises. To address this limitation, there is an urgent need for the development of a new evaluation system.

3 The Development of a Competitive Evaluation System for Multinational Enterprises

Drawing insights from existing literature, the competence of multinational corporations hinges on various factors. Firstly, profitability signifies the quantity and level of revenue accrued within a specific period, delineated into six components: operating profit margin, cost profit margin, surplus cash guarantee multiple, return on total assets, and return on net assets. Secondly, the financial capacity of enterprises reflects their overall strength and vitality, encompassing three factors: asset-liability ratio, net cash flow ratio, and long-term debt ratio. Thirdly, enterprise innovation capability denotes the extent to which enterprises systematically undertake various innovation-related activities, with the proportion of funds invested in R&D being a key component. Fourth, the internationalization level serves as an indicator of the knowledge, ability, accomplishment, and proficiency in dealing with the international community that enterprises possess. This metric includes two indicators: the number of overseas companies and the ratio of overseas profits to total profits. Fifth, brand competitiveness measures the ability of enterprises to excel in market competition and consistently garner excess profits. This aspect further encompasses brand loyalty and customer satisfaction[14]. Sixth, ESG evaluation indicators gauge a company's environmental, social, and governance capabilities. Tiago Cruz Goncalves et al. thought that the social section in ESG has a vital impact on a company's financial performance [15].

In the preceding section, we established the evaluation index for the core competitiveness of multinational enterprises. Consequently, in this section, we present a table designed for the evaluation of the competitiveness index. This table aims to illustrate the distinct competitive advantages of various enterprises more effectively and assign corresponding scores to them.

The table encompasses factors influencing the competitiveness of multinational enterprises, along with their corresponding competitiveness indicators. Additionally, it delineates the positive or negative impact of these indicators on competitiveness, accompanied by the respective weights and index scores assigned to different multinational enterprises.

Weights are expressed as numerical values ranging from 0 to 100 percent (or 0 to 1), where 0 signifies insignificance, and 100 indicates utmost importance. These weights are determined through a comprehensive review of pertinent literature and consultations with experts in the relevant fields. The assigned weight reflects the significance of a competitiveness index relative to other indicators within the same factor. It is essential to note that the cumulative sum of weights for all indicators within each factor equals 100 percent, denoted as 1.

The metric score for each company is represented by a whole number ranging from 0 to 10, determined through a comparative analysis of values extracted from their 2022 annual reports. As an illustration, if Company A reports an annual net income of 1.5 million and Company B reports an annual net income of 1 million, Company A would receive a score of 8, while the corresponding score for Company B would be 6.

Based on the assigned weight and score for each factor, the comprehensive competitiveness score, denoted as C, is calculated as the weighted sum of scores across all factors.

In the formula, we employ abbreviations for clarity, representing profitability as P, enterprises' financial capacity as F, international level as I, enterprises' innovation capability as C, brand competitiveness as B, and ESG evaluation indicators as ESG.

Here is the Formula:

$$C = \frac{1}{6}\left(\sum_{n=1}^{n} P_n W_n + \sum_{n=1}^{n} F_n W_n + \sum_{n=1}^{n} I_n W_n + \sum_{n=1}^{n} C_n W_n + \sum_{n=1}^{n} B_n W_n + \sum_{n=1}^{n} ESG_n W_n\right) \quad (1)$$

Table 1. Factors and Indicators Affecting the Competence of Multinational Enterprises

Factors	Indexes	Positive/Negative	Weight	Apple	CATL
Profitability	Operating Profit Margin	+	15%	8	5
	Cost Profit Margin	-	15%	4	9
	Surplus Cash Guarantee Multiple	+	10%	5	8
	Return On Total Assets	+	30%	8	3
	Return On Net Assets	+	30%	8	2
Enterprises Financial Capacity	Asset Liability Ratio	-	40%	6	8
	Long-Term Debt Ratio	-	20%	3	9
	Net Cash Flow Ratio	+	40%	3	9
Internationalization Level	The Number of Overseas Companies	+	50%	7	6
	The Ratio of Overseas Profits to Total Profits	+	50%	8	6
Enterprise Innovation Capability	The Proportion of Funds Invested in R&D	+	50%	8	5
	The Number of Patent	+	50%	8	6
Brand Competitiveness	Sales Revenue	+	40%	8	4
	Market Share	+	20%	6	8
	Brand Value	+	40%	10	5
ESG Evaluation Indicators	ESG Score	+	100%	6	8

In the comparative analysis presented in Table 1, we examine two distinct companies. The first is an American multinational technology giant, predominantly engaged in the design, development, and marketing of mobile phones, consumer electronics, computer software, online services, and personal computers. The second is a Chinese battery manufacturer and technology company specializing in the production of lithium-ion batteries for electric vehicles, energy storage systems, and battery management systems.

The specific data for the two companies were sourced from their respective annual reports for the year 2022. The methodology employed is outlined as follows: initially, data was extracted from the companies' annual reports. Subsequently, the data was subjected to calculation and scoring based on our competitiveness index system. As previously explained, the individual scores, ranging from 0 to 10 points, were then multiplied by their respective weights. Finally, the weighted scores for each component were aggregated and averaged to yield the overall competitiveness score, denoted as C.

Table 2. Data Integration

	Apple	CATL
Profitability	7.1	4.4
Enterprises Financial Capacity	4.2	8.6
Internationalization Level	7.5	6
Enterprises Innovation Capability	8	5.5
Brand Competitiveness	8.4	5.2
ESG Evaluation Indicators	6	8
C	6.87	6.28

The data and analysis presented in Table 2 indicate that, within the current global landscape, Apple holds a competitive edge over CATL. Specifically, Apple outperforms CATL in key dimensions such as profitability, internationalization level, corporate innovation capability, and brand competitiveness. It is noteworthy, however, that Apple's scores in corporate financial capacity and ESG evaluation indicators are lower than those of CATL, particularly in terms of financial strength. It is important to highlight that, at present, this difference in financial strength has not exerted a significant impact on the overall results.

4 Conclusion

This study, informed by existing literature and an understanding of contemporary political and economic trends, introduces a novel competitiveness evaluation system tailored for multinational corporations. The comprehensive system encompasses six crucial aspects: profitability, enterprise financial capacity, internationalization level, enterprise innovation capacity, brand competitiveness, and ESG evaluation indicators. Employing this system, we conducted a quantitative analysis on two selected companies, Apple Corporation—an American technology giant, and CATL—a Chinese technology giant, revealing that Apple holds a competitive advantage in today's global landscape.

The contribution of this paper is twofold. Firstly, it addresses a gap in the original competitiveness evaluation system by integrating ESG and considering the impact of the globalization trend. Secondly, it provides insight into the future trajectory of competitiveness evaluation system development.

Examining the evolution of the current competitiveness evaluation system underscores the dynamic nature of the global landscape, suggesting that the existing system may not align with future patterns. Consequently, the construction of competitiveness evaluation systems is an ongoing and evolving process. It is important to note that the sample size in this study comprised only two companies. Therefore, future endeavors in competitiveness evaluation system construction should explore a more extensive, multi-sample, and cross-temporal analysis to enhance the robustness and applicability of the developed systems.

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