

Review of Competitive Interaction Research

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Abstract: Since the 21st century, the competition among enterprises has become increasingly fierce. The competition as an important direction of strategic management of enterprises has attracted widespread attention from scholars at home and abroad. From the analysis of competitors, the driving factors of competition, the interaction of competitive activities, and the impact of competitive interaction on corporate performance, review the existing research on competition and interaction, and put forward the direction of future development.

Keywords: Competitor Analysis; Drivers; Competitive Interactions; Corporate Performance.

1. INTRODUCTION

The study of Competitive Dynamics began in the early 1980s. Chinese scholars gradually introduced the relevant research theories and methods of dynamic competition in the late 1990s. It is still one of the most important and enthusiastic researches in the strategic management of domestic and foreign enterprises. [1] (Xie Hongming, 2003). As one of the main contents of dynamic competition, competitive interaction has caused in-depth research by a large number of scholars represented by Chen Mingzhe. Chen (Chen, 1988) clearly stated in his doctoral thesis that "Competitive Interaction" refers to a dynamic process in which enterprises compete with each other through a series of offensive and responsive behaviors [2]. The main research route is that the offensive behavior adopted by enterprises will cause a series of response behaviors of other competitors in the industry. The focus is on exploring and driving through the full analysis of competitors. The reason for the enterprise to adopt competitive behavior, the law of the two sides in the process of competitive interaction and the corresponding results. Therefore, this paper will focus on four key elements in the research route: competitor analysis, competition drivers, competition interaction rules and the impact of competitive interaction on firm performance.

2. COMPETITOR ANALYSIS

The competitor analysis mainly discusses the one-to-one competition relationship between the market level and the enterprise level, and studies the degree of corporate contact. Before a company adopts a competitive behavior, if it can correctly evaluate and predict the response

behavior that the competitor will take, it can adjust accordingly before the implementation of the behavior, and expand the first mover advantage, otherwise it will be quickly followed by the respondent and missed some. Machine [3, 4]. Therefore, competitor analysis is critical to the choice of competitive behavior.

As early as 1996, Chen incorporated market commonality and resource similarity into the study of corporate competitive relations. He defined market commonality as “the degree of market overlap between enterprises and competitors.” This feature is often used to assess whether a company is There are motives for participating in competition [5]; and multi-market contact was first proposed by Edwards in 1955. He believes that multi-market contact means that companies compete with competitors in multiple products, multiple markets, and multiple regions. In this case, this indicator is mostly used to determine the extent to which the two sides of the company are competitors. He found that the high degree of contact of the enterprise can effectively reduce the intensity of competition and may even restrain each other [6]. Many studies of multi-point competition confirm this view. For example, Jayachandran validates the impact of multi-market exposure on the intensity of competition among enterprises. It is found that two companies with multiple market contacts may compete repeatedly in different markets in the future, and the benefits of today's competitive behavior may lead to competition. The opponent's more revenge in another market, this worry about the future will reduce the number and intensity of competition [7]; Baum and Korn through empirical research show that the market entry rate and exit rate of the enterprise when multi-market contact increases Will increase, and the resistance will be reduced [8]. Deng Xinming (2017) also found through the data analysis of the domestic appliance market that market commonality has a significant negative impact on corporate competition [9]. However, with the further study, some scholars, Mester, 1987) found through research that the increase in multi-market contact will lead to more intense market competition [10]; while Baum found in subsequent research: multi-market contact and The competitive strength of enterprises has a non-linear relationship, but a U-shaped relationship. In the initial stage, the intensity of competition among a few enterprises increases with the increase of contact with each other. With further understanding, the intensity of competition will gradually increase. It tends to decline [11]; Rohoades has found through research that there is no direct correlation between multi-market exposure and competition intensity [12]. Domestic scholars (2008) summarized the relevant literature and proposed that under the conditions of multi-market contact, the five aspects of controlling enterprise resource similarity, scope of influence, market density, relative scale of enterprises, internal integration and reward mechanism can reduce competition. Intensity [13]; Fang Shi (2010) also starts from the internal and external factors of the enterprise, and proposes internal cooperation and coordination mechanism, resource similarity and company scale, and external relative market importance, market density will produce competitive strength. Impact [14]. From the current research point of view, there is still no unified statement about whether market contact can reduce the intensity of competition, and it is necessary to further explore its influencing factors and related relationships.

3. THE DRIVING FACTORS OF COMPETITION

Influencing the company's actions and actions is not only closely related to the external environment, but also inextricably linked to various factors within the company. In the face of the intricate competitive situation, what factors are driving companies to make effective competition strategies? Miller, Chen (1994) first explored this issue. They used the competitive data of the US aviation industry to find an analysis model that reflects the possibility of competitors responding to attacks: the nature of actions, competitors, and competition. Factors can influence whether competitors react and how to react [15]. Tan Weiqiang (2008) and Lu Yadong (2013) explored the impact of market diversity, resource endowment, experience accumulation and organizational performance on corporate competitive behavior under the research paradigm [16, 17], but these studies are still limited to enterprises. On the objective factors of resources, markets, products, etc., they do not pay attention to the subjective feelings of corporate decision-makers and stakeholders as the subject of competitive tension perception. Chen et al. (2007) argue that the competitive decision-making of enterprises is determined by the unique competitive tension perception of enterprises. When competitors' attack actions have a strong impact on the perception of corporate competitive tension, it will trigger corresponding enterprises. Tactical response [18]. Livengood and Reger (2010) analyze the competitive behavior in dynamic competition from the perspective of psychological cognition. They believe that the counterattack strategy adopted by enterprises in the face of competitors' attacks is not only driven by pure economic interests. The result is the optimal decision-making action made by corporate decision-makers after considering all possible factors such as corporate development strategy, competitors' intentions and market changes [19]. Feng Guiping (2010) and Cheng Cong (2015) studied the factors of enterprise competition from the subject of competitive tension perception. Feng Guiping summarized the six main factors of external orientation, structural complexity, market dependence, past performance, idle resources and research and development capabilities into three dimensions: action consciousness, action motivation and action ability, which not only explained "who is affecting action". He also answered the question "Who is affecting action" [20]; while Cong Cong used the classic Awareness-Motivation-Capability (AMC) model through Alibaba's and Tencent's longitudinal case analysis. From the perspective of identity domain, the decision-making mechanism and effect of corporate competitive action are clarified: when competitive behavior occurs within the scope of corporate identity domain, enterprises can usually obtain a considerable competitive effect by virtue of core technology and market experience; The action is flat [21].

4. THE LAW OF COMPETITION AND INTERACTION

4.1 Market behavior

Different from the analysis of competitors at the enterprise level and the market level, competitive interaction pays more attention to the competition behavior and state of the enterprise itself. The frequent and complicated competition behavior between enterprises

makes it urgent for academics and industry to understand their interaction rules, in order to better guide enterprises to formulate competition strategies and occupy market highlands. In the early research of competitive interaction, scholars mainly examine the offensive and response actions between enterprises from the perspective of market behavior. Ken G. Smith, Curt Grimm et al. define "offensive" in competitive interaction as specific and compelling market behaviors, such as price cuts or promotions [22]. Correspondingly, a "response" is also a market behavior, a counterattack behavior taken by competitors to offset offensive behavior [23]. Generally, scholars regard corporate or corporate behavior as the research object, trying to grasp the law between a certain kind of competitive behavior and another competitive behavior and its characteristics.

Foreign scholars represented by Chen have studied the characteristics of competitive behavior. He believes that: (1) the greater the impact of offensive behavior, the greater the number of responses; (2) the greater the intensity of offensive behavior, the greater the number of responses; (3) The more resources required for offensive behavior, the larger the specification, the less the number of responses and the slower the response speed; (4) When the key market of the enterprise is attacked by competitors, the enterprise usually does not respond quickly [twenty four]. Combined with the social status quo of China's economic transformation, Chinese scholars have also made corresponding research. Xin Hanging empirically draws the relevant laws of competition behavior in the market of China's home appliance industry through the collection of data on China's home appliance industry: (1) Price competition is the most easy competition behavior of enterprises, but it is not the main behavior; (2) Market share and competition behavior of enterprises There is a strong correlation between the number of "into new industries" and "cooperative alliances", "acquisition and merger", "foreign investment", "bank-enterprise cooperation" and "important promotion". Enterprises usually enter new fields through cooperative alliances, mergers and acquisitions, foreign investment, bank-enterprise cooperation, etc., and will tend to use promotional activities to broaden the market after entering new fields; (4) Attack, response behavior and strategy, tactical behavior There is no correlation between them; but there is a correlation between alliance, cooperation and offense, and response behavior [25].

4.2 Non-market behavior

It can be seen that some scholars focus on market behaviors such as price promotion (for product and customer behavior) when studying the competitive interaction of enterprises, and largely ignore the non-market behaviors such as laws, regulations, and administrative subsidies. Industrial barriers and competitive advantages established for social and political environments [26] (Quasney, 2003). For example, in 1992, United Airlines, such as United Airlines and FedEx, prevented British Airways from encroaching on American Airlines through non-market activities such as public relations, lobbying, and media. Based on this, Professor Stanford Baron proposed that competition behavior should be divided into two categories: one is based on traditional competitive market behavior, the other is based on social and political non-market behavior, and emphasizes market behavior and non-market behavior in enterprise

competition and enterprise. The interaction and synergy in performance also makes non-market behavior a new part of strategic management research [27].

In the socialist market economy promoted in China, although the market mechanism plays a major role, the government's regulatory power cannot be ignored. Therefore, the inclusion of non-market behaviors into the competitive interaction system has led to extensive research by domestic scholars. Tian Zhilong and Deng Xinming (2007) take the Chinese household appliance industry as an example, and study the law of competition and interaction between market behavior and non-market behavior: (1) Although market behavior is the main aspect of competition and interaction between enterprises, it must be truly Grasping the overall picture of the competitive interaction of enterprises, the importance and value of non-market behavior and integration behavior can not be ignored; (2) There is no significant difference in the number of market behaviors implemented by enterprises with different market share, but non-market behavior is There are significant differences in quantity, and companies with relatively small market share tend to implement non-market behavior; (3) there is a significant correlation between corporate offense and response behavior, and further, market attack and market There is a significant correlation between response and non-market response; there is a significant correlation between non-market offense and non-market response, and the correlation between market response and market response is not significant; (4) the market behavior of enterprises is large Most are short-term goal-driven, lack of long-term consideration and planning tactical behavior, and more non-market behaviors are implemented. It is a long-term profit-oriented strategic behavior; (5) There is a significant correlation between the market and non-market offensive or response behaviors and individual or collective behaviors. Further, enterprises are more inclined to participate in separate actions. Market behavior is more inclined to participate in non-market activities through the "non-market alliance" collective action mode [28]. Tian Zhilong and Fan Shuai (2010), based on the case of the home appliance industry, found that (1) although the non-market offensives pose a greater threat to the opponents, the opponents still show a wait-and-see attitude or hesitation, and do not respond quickly in the short term; 2) Market-based offensive behaviors with higher requirements for upstream suppliers will still lead to more reaction behaviors; (3) Non-market behaviors that generate collective benefit results will also produce non-response, reflecting the non-market Special "competition relationship" in the environment [29]

4.3 Integration behavior

Although some scholars pay more attention to the characteristics and laws of market behavior and non-market behavior in the process of enterprise competition and interaction, it is undeniable that regardless of market behavior or non-market behavior, whether it is a low-cost strategy or public. The speech strategies are all aimed at enhancing the core competitiveness of the company and enhancing its strength. In today's complex and volatile competitive environment, market behavior and non-market behavior are inseparable, and non-market behavior will become worthless from specific products or services. There are also many scholars who have suggested that the degree of integration between market behavior and

non-market behavior will have an impact on the success or failure of enterprises [30-32]. Therefore, the integration of market behavior and non-market behavior has become a new research direction in the field of competitive interaction. Boron (1995) proposed that enterprises must integrate market behaviors with non-market behaviors in order to succeed. Only when the rationality of the two is effectively realized can enterprises be promoted to obtain market and non-market benefits and improve the overall operation of enterprises [33]. Tian Zhilong (2007) found that there is a significant dynamic correlation between corporate market behavior and non-market behavior. Whether taking market or non-market behavior will cause competitors to react, and the competitor's reaction will further counteract the enterprise. Therefore, enterprises should improve the integration of market and non-market to maintain the balance between market and non-market environment [28]. Weiwu (2009) found through empirical analysis of the top enterprises in China's various industries that integration has a significant regulatory effect on the relationship between non-market, market behavior and financial performance, and market performance. This is due to the competition of Chinese enterprises. The more intense, the greater the intensity of competition, the higher the competitive means. Enterprises often associate their non-market with market behavior in the process of competition, and think together about the strategic choices of the company. The combination of market and market competition behaviors will increase the difficulty of counterattacks and prolong the time for counterattacks of opponents, thus forming a very strong integration force with the non-market and market environment, jointly maintaining the vested competitive advantage and achieving the expected performance results [34]. It shows that most of Chinese enterprises have realized the importance of integrating non-market and market behaviors to business activities.

5. THE IMPACT OF COMPETITIVE INTERACTION ON CORPORATE PERFORMANCE

Whether it is to adjust market prices, promotions or other market behaviors, or to adopt non-market behaviors such as lobbying and speech, companies are creating or sustaining competitive advantages in a series of competitions and responses, and this dynamic will ultimately determine the company. Profitability [22, 35]. Therefore, the research of related scholars no longer stays on the characteristics and laws of corporate competitive behavior, but further explores the impact of competitive behavior on corporate performance. Chen (1995, 1996) found that the competitive response of enterprises has a positive correlation with performance, and the more active the company is to take action to attack or respond, the better the company's performance [5, 36]; Young (1996) also confirmed the enterprise Performance is directly proportional to the number of competitive response actions [37]. In addition to the competitive behavior itself, scholars usually consider the relationship between the characteristics of competitive behavior and performance. For example, Sambamurthy (2003) and Gnyawali (2006) explore the relevance of competition behavior, capacity and performance [38]; Wei Wu (2009) incorporates the breadth, scope, threat, complexity, cooperation and

integration of competitive behavior into the analytical framework. The results show that these six characteristics have strong correlations between corporate finance and small and market performance. However, it has little impact on social performance, and these behavioral characteristics can have a certain regulatory effect on the relationship between market and non-market behavior and performance [34]; and Deng Xinming (2015) also empirically demonstrates the complexity of corporate market actions. There is also a significant adjustment between abnormality, regulation, and obvious action-to-action. On this basis, he further considers the impact of competitor response on firm performance. The conclusions show that competitive action has significant positive performance on firm performance. To regulate, but it also has a negative effect due to the response of the competitor, but the total effect is still positive, so the enterprise It is still necessary to actively adopt competitive behavior to enhance corporate performance [39], which further deepens the relationship between competitive action and corporate performance.

6. CONCLUSIONS AND PROSPECTS

Through the theory of competitive interaction, we can find that many scholars have made useful explorations along the framework of competitors' analysis and competition with enterprises. In the analysis of competitors, most of the existing research focuses on the influence of market commonality and multi-market contact on the intensity of competition in the industry, and the influence of multi-market contact on the intensity of competition under different conditions is very different; when discussing the driving factors of competition, Considering the external environment and internal factors: the external environment mainly considers the objective conditions of enterprise resources, markets, products, etc., while the internal factors use the AMC perspective to consider the influence of the competition subject's consciousness, motivation and ability on the competitive behavior of the enterprise; competitive interaction behavior As the main research part of competitive interaction, the law has attracted the attention of most scholars: they not only study market behavior, but also further expand the research on non-market behavior and the impact of integration behavior on enterprises, and summarize the characteristics of enterprise competition interaction through a large number of empirical cases. And the law is an important reference for enterprises to predict competitors' behaviors and formulate corporate competition strategies. Further, on the basis of corporate competition behaviors and laws, study how these behaviors bring to enterprises, that is, to study competition behaviors and their characteristics and Phase of corporate performance Relationship, companies have chosen to effective competition, enhance corporate performance to provide a strong basis.

Nevertheless, research in the field of competitive interaction is still worth further exploration. First, when analyzing the impact of multi-market exposure on competition intensity, there is no unified conclusion so far. Therefore, it is important to clarify the internal and external conditions and influencing factors of the enterprise when discussing the problem [14] (Fang Shi, 2010). In addition, taking competitors as the center and considering the market

commonality and resource similarity of enterprises, it is an appeal of current research scholars to explore the deep influence mechanism of competitors' analysis on corporate competitive actions [9, 40, 41] (Tsai W, 2011; Ming-Jer Chen, 2012; Deng Xinming, 2017, etc.). Second, although the competitive interaction behavior and its characteristics occupy half of the competitive interaction research field, the actual case is still relatively simple, focusing only on aerospace (Young, Smith and Grimm, Chen, etc.), home appliances (Deng Xinming, Tian Zhilong, etc.), A few industries, such as real estate (Tian Zhilong), need to conduct relevant empirical tests on other industries with frequent competition and interaction (such as the Internet), further enrich the experimental samples, and expand the use of competitive interaction theory. Third, most scholars use empirical methods to study the law of competitive interaction and its impact on performance. However, because the current data collection basically uses the structural content analysis method that is not perfect, it is inevitable that there will be omissions. Therefore, it is also necessary to use the game theory and other models to simulate the current status of competitive interaction, and consider the enterprise response time, time lag, etc. as a model to make it more realistic, and the theoretical behavior of the enterprise. In short, research in the field of competitive interaction is still in the ascendant.

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