

Competitive Strategies and Approaches Among Electronics Companies

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Abstract: With the development and progress of time, the purchasing power of individuals for electronic products is increasing, leading to intensified competition among electronic product companies. This paper analyses the competition between two graphics card developers and producers in the context of increasing consumer purchasing power. It considers the effects of their competition on the market through the examination of their respective strategies and reactions. The study aims to provide valuable insights into competition methodologies for electronic product companies in the future. Electronics firms can improve their competitiveness by implementing effective competitive strategies. It is important to understand how and when to employ these methods to achieve the desired results. In order to do so, firms should adopt a clear and logical approach that incorporates causal connections between different strategies. It is also crucial to use precise, objective language, avoiding biased or ornamental language. In addition, adhering to conventional structures, formats, and grammatical correctness is key, as well as maintaining a formal register. By following these principles, firms can attain a significant advantage over their competitors.

Keywords: Electronics firms, competitive methods, competitive strategies, how to employ them, when to employ them.

1. Why Study These Two Electronics Companies Individually

Competitive strategies and approaches among electronics companies are often similar. Upon analysis of several published papers, it becomes apparent that most of the literature examines competitive strategies that can be used by all types of companies, and does not provide an in-depth analysis for a particular type of company. However, the competitive relationship between different types of companies varies, and therefore this does not offer significant assistance for the competition of electronic product companies. At the same time, many papers fail to analyse the most representative enterprises among different enterprise types, resulting in reduced relevance to the same companies. Additionally, numerous papers mention competitive strategies which are applicable to all types of firms, including cost leadership and product differentiation strategies [1], and other strategies such as methods of competing in the restaurant business [2]. However, these strategies may not be optimal for a specific industry. This paper aims to investigate the top two electronic product enterprises with a significant competitive relationship to determine the most effective approach, thereby aiding all electronic product companies within the industry.

2. Main Directions of Research

The focus of this study is directed towards the two dominant players in the electronics industry: NVIDIA and AMD, in the graphics card sector. The study employs three approaches, namely: evaluating customers' responses to their products through questionnaires, comparing the two firms by analyzing their product launch announcements, and tracking market responses to their new releases after each of the companies' competitive strategies. The research will investigate the market's reactions to the products launched by these two companies. These three aspects are employed to

examine the influence of competitive strategies and approaches on the market for the companies' products.

3. Analysis Process

First and foremost, this paper utilises a research questionnaire acquired by two companies to gauge product satisfaction from customers in the market. A survey questionnaire was conducted, gathering 152 responses over the course of a month. The survey targeted individuals between the ages of 16 and 45, who possess a deeper understanding of electronics and graphics cards, and have witnessed significant changes in graphics card generations and shifts in leadership between the two companies. The results obtained from this sample population will provide a more representative and compelling subject of study. Following the completion of the screening process, 120 data points were selected for examination. The data collected from the participants include the following inquiries:

- (1) Which company's video card are you utilising?
- (2) If these two companies offered differing incentives or introduced novel technologies, would consumers opt to use products manufactured by other companies?
- (3) What is the key consideration when selecting a graphics card?

Regarding the competition between the two companies, it is unclear who has had the upper hand in the past. Please provide an objective response.

The following questions were designed to gather information:

- (1) Which graphics card company do you currently use?
- (2) What factors predominantly influence your choice of graphics card, and which factors are first and second respectively?
- (3) If NVIDIA and AMD's graphics cards have identical performance, would you opt for the product with stronger publicity, even if it comes with a higher price tag?
- (4) In the case that NVIDIA and AMD's graphics cards are

identical in price, do you still choose a particular brand due to past habitual use, despite the performance of that specific card being lower?

Based on the responses to these four questions, we can provide a summary.

After analysing the results of the initial question, it was determined that out of the 120 data points, 86 preferred NVIDIA's graphics card, whilst only 34 chose AMD's. This indicates that NVIDIA is considerably more competitive than AMD in the current market. This trend is further reflected in the responses to the subsequent three questions. In the second question's results, performance was the most influential factor for choosing a graphics card, followed by price. Regarding the third and fourth questions, 98 respondents stated that they would not opt for a more costly graphics card with the same performance level, whereas the remaining 22 indicated that they would persist with a pricier one. On the fourth question, 92 individuals opted not to continue using a graphics card from a lesser performing company, while only 28 selected to persist with such a card.

Through this questionnaire, it is evident that customer loyalty in the electronic products market, particularly graphics cards, is not strong. Most customers prioritize better performance over brand loyalty and are willing to switch to another company regardless of the length of time they have used a certain brand's graphics card. From this analysis, it can be inferred that the competitive strength of an enterprise within the electronics industry cannot be enhanced solely through publicity or lower pricing. Rather, the improvement of performance and technology is imperative in order to attract customers from competing establishments, increase market share, and truly succeed.

To address the second question, we aim to compare the customer choice of graphics cards between the two companies in the marketplace based on what they unveil at their product launches. This paper examines three distinct periods of time, namely when AMD graphics cards were lagging behind, when NVIDIA and AMD graphics cards were in alternation for the lead performance, and when AMD graphics cards were outperforming their counterparts. Firstly, we analysed the brief period during which AMD held a leadership position in the graphics card market, specifically in the second quarter of 2019. During this period in the graphics card market, AMD's graphics cards significantly outperformed NVIDIA's competing products in terms of graphics card shipments during the pre-sale phase. This was due to the new graphics cards released in the launch event surpassing NVIDIA's graphics cards released during the same period in all aspects. It is noteworthy that this is the only time in five years that AMD has managed to dominate NVIDIA's graphics card market. By studying the circumstances, it was determined that the primary cause of this occurrence was the introduction of the RX5800 series graphics cards by AMD, which featured a new architecture that outperformed the competing NVIDIA RTX20 series graphics cards both in terms of price and performance. This demonstrates a clear preference for electronics that offer superior performance at a lower cost. That is to say, with regards to the enterprise's competitive strategy, superior performance will remain the top priority.

Secondly, we analysed the periods during which AMD graphics cards demonstrated inferior performance, as well as periods when both NVIDIA and AMD graphics cards experienced similar levels of performance. We conducted this analysis within the same framework, since market trends were

largely consistent across both periods. NVIDIA led during all periods except for the third quarter of 2010 and the first quarter of 2014, when AMD and NVIDIA performed equally. In those two quarters, the market favoured NVIDIA graphics cards for both companies' releases. This is because AMD's graphics cards are not well optimized for ordinary home computers, resulting in underutilized performance, whereas NVIDIA has a history of producing graphics card models specifically for home computers, resulting in better optimization and suitability compared to AMD's graphics cards. At the same time, in terms of performance and price, the difference is not significant. People are more likely to choose an established brand instead of casually switching to an unfamiliar one. NVIDIA's graphics card performance is more advanced, hence most users opt for NVIDIA's graphics card. Moreover, NVIDIA has an extensive network of after-sales cooperation outlets, which contributes to their popularity. This statement lacks clarity and proper structure. NVIDIA's graphics cards are renowned for their excellent after-sales service. Consider the following revision: To summarise, the company's competitive strategy comprises not only performance enhancement but also a focus on after-sales service. Competition in the electronics industry involves capturing each other's customers. Relying solely on price or publicity is not a successful way to attract a substantial number of customers. Rather, improving product performance, coupled with effective advertising and superior after-sales service can compete with rivals to a significant extent.

The third aspect is addressed: how the market reacted to the new product releases of the two companies each time they implemented a competitive strategy in the past. We concentrate on three key elements: cost, exposure, and effectiveness. The initial aspect of our investigation revolves around the cost of adopting a competitive strategy. AMD has been employing price as a competitive strategy with favour in recent times. For instance, in the latest graphics card release, AMD witnessed another enhancement in performance, however, at a considerably lower cost compared to rival NVIDIA's products. Lowering prices is one of AMD's most frequently employed competitive strategies. From a long-term viewpoint, employing this competitive strategy can safeguard your existing market share when your products are not performing as well as competitors. The reduced price will influence the market, encouraging existing users to maintain their loyalty to their products. Additionally, it will attract new users who are unfamiliar with the distinctions between various graphics cards to choose a more affordable and well-publicized option. The low-price approach can sustain the lowest product market but cannot gain additional market share or intrude on the market share of competitors. That is, if a company or its product is performing poorly compared to other manufacturers, or if new companies are trying to enter the market and gain customers, they can implement a low-price strategy alongside effective marketing and reasonable product performance. This can have a surprising effect, helping new and struggling companies stabilize their market position, giving them more options and allowing for the application of other strategies in the future.

4. Analysis and Summary

Through the analysis of the above three aspects of corporate strategy, we have divided the main strategy into three main and most important directions, namely, the

performance direction, word of mouth and after-sales direction, as well as the price direction. By studying the past examples of these two companies and their performance in the market, we can summarize the following points about the use of these three directions of corporate strategy time and their respective advantages and disadvantages:

4.1. Competitive Strategies for Performance Orientation

In the implementation of a competitive strategy, the primary consideration is the performance of a company's products. When a company's products outperform those of its competitors in the market, this serves as the best form of advertising for users of electronic products. Therefore, enterprises should increase investments in publicity and ensure good product quality to maintain a competitive edge. Through increased publicity, the majority of the company's original clientele will likely continue to select the original enterprise's products. Additionally, there is a possibility that new enterprises may alter their usage of products to favour the new enterprise's offerings. A reliable product guarantee helps retain customers to a certain extent, and can facilitate their retention during future product updates, as well as helping to maintain loyalty among existing users. These are the two performance leadership strategies recommended in this paper. In this regard, the competition between semiconductor component companies in China and the United States provides us with some references. [3] When the relationship between the countries in which the companies are located is poor, more performance leadership will work better.

4.2. Competitive strategies in the price direction

In terms of price-based competitive strategy, this paper proposes using enterprise performance not significantly below the competition. In the electronics industry, customers only opt for high-performance products and if the product falls short, prices will have to be repeatedly slashed, which is detrimental to the enterprise's funds. As the success of the company hinges on its products, a heavy reliance on a low-price strategy may prove ineffective. We advise against leading enterprises pursuing this tactic, as it may result in supply shortages, reducing reputation and quality, which in turn will negatively impact the future of the company's products. For companies that are not far behind in terms of

performance, reducing prices can attract a significant number of high performance customers who do not require a small group of customers, as well as customers who continue to choose the original company due to price considerations. This can help to some extent to ensure that companies do not have too low a market share, and also obtain some loyal customers for subsequent new product releases. In this aspect, the competitive strategy of textile firms actually has some similarities with that of electronics firms, but in contrast, textile firms will have a more competitive strategy in the price direction.[4]

4.3. Competitive strategy in the direction of word-of-mouth after-sales

In the field of competitive strategy, focusing on post-sales and word of mouth recommendations is advisable for all companies. Customer feedback can significantly impact the sales of a company's products. Positive reviews are crucial for a successful enterprise, as a poor reputation in the market can lead to decreased revenue. After-sales service is crucial due to its direct impact on word-of-mouth recommendations, making it a point of attention for enterprises. In this regard, the competitive strategies among industrial painting equipment companies can provide some references. This kind of industry which needs to be used for a longer time and needs better quality will need to have a better reputation and after-sales service more.[5]

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