

# The Factors Affecting the Strategic Transformation of Small and Medium-sized Sporting Goods Enterprises

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**Abstract:** In the current market competition, small and medium-sized sporting goods enterprises are facing multiple challenges such as product homogeneity, insufficient innovation, and limited market expansion. In order to deal with these problems, this paper focuses on the strategic transformation of small and medium-sized sporting goods enterprises and studies the key factors affecting their successful transformation. This paper explores the impact of strategic adjustments such as intelligent product development, technological innovation, brand positioning, channel expansion, and resource integration on enterprise development. By analyzing the impact of different strategies on the sales growth rate, market share, customer satisfaction and operating costs of enterprises, this paper reveals how these factors drive enterprises to improve their core competitiveness and enhance their market responsiveness during the transformation process. The research results show that intelligent products and technological innovation can effectively improve the market share and customer satisfaction of enterprises, especially in the field of personalized and high value-added products. At the same time, channel expansion and resource integration (such as mergers and acquisitions, cooperation, etc.) have played a positive role in reducing operating costs and improving operating efficiency. Experimental data show that AI has a high R&D investment (high), and chooses a niche market as its brand positioning, combined with channel expansion and resource integration, and finally achieves the highest sales growth rate (25.4%).

**Keywords:** Sporting Goods SMEs; Strategic Transformation; Intelligent Products; Technological Innovation; Market Competitiveness

## 1. Introduction

In recent years, the rise of intelligent products, the continuous advancement of technological innovation and the increase in personalized customization services have provided new development opportunities for the sporting goods industry. More and more small and medium-sized enterprises have realized that through product intelligence, functional innovation and channel expansion, they can enhance their competitiveness and improve customer experience, thereby achieving sales growth and increasing market share. However, although many companies have made some progress in the transformation process, how to effectively integrate resources, cope with industry competition, and find appropriate strategies in a rapidly changing market environment remains a difficult problem for many small and medium-sized enterprises. This paper aims to explore the key factors and their impacts faced by small and medium-sized sporting goods companies during the transformation process, focusing on analyzing the impact of factors such as intelligent product development, technological innovation, brand positioning, and channel expansion on the company's sales growth rate, market share, customer satisfaction, and operating costs. By combining experimental data with case analysis, this paper attempts to provide a set of effective transformation strategies for small and medium-sized enterprises to help them stand out in the fierce market competition and achieve sustainable development.

This paper first analyzes the key challenges and opportunities faced by small and medium-sized sporting goods companies during the transformation process, and explore the impact of factors such as intelligent product development, technological innovation, brand positioning, and channel expansion on corporate development. By combining experimental design with data analysis, the paper deeply analyzes the specific impact of different strategies on sales growth rate, market share, customer satisfaction and operating costs. Finally, combined with the experimental results, the research findings are summarized and the limitations of the research and future development directions are discussed,

aiming to provide practical guidance for transformation strategies for small and medium-sized sporting goods companies.

## 2. Related Work

As the trend of digital transformation and sustainable development intensifies, more and more research has focused on the transformation and innovation of various industries. However, there is still a lack of research on the specific challenges and coping strategies faced by SMEs in the sporting goods industry in this process. Chin et al. explored the evolution of Digital Transformation (DT) in the service industry. Through keyword cloud analysis, they summarized the evolution of DT in the service industry, compared the similarities and differences between actual cases and academic research, and explored the role of key contributors in the evolution of DT [1]. Dingle et al. explored the impact of climate change on major sports venues in Australia and the response measures of relevant organizations, especially the impact of climate change on water resources in the venues. The study found that climate change has brought about six major water resource problems, including reduced precipitation, increased evaporation, water supply restrictions, and rising costs [2]. Beer et al. explored the nature, sources and manifestations of local leadership in the process of large-scale economic transformation by investigating the attitudes of communities after the closure of the Australian automotive industry. The study found that communities were aware of the power to lead change, but concerns about the effectiveness of leadership led to dissatisfaction, and further empowering local leadership could improve public perceptions [3]. Prayag et al. used the Dynamic Capabilities (DCs) and Disaster/Crisis Management Cycle (DMC) theoretical frameworks to explore how different types of dynamic capabilities build and maintain organizational resilience in tourism enterprises during COVID-19. They found that the threats and opportunities brought by the epidemic activated 10 different types of dynamic capabilities and affected the resilience performance of enterprises in different stages (coping stage, short-term response and long-term recovery) [4]. Jauhar et al. analyzed consumer purchase and return patterns through the recency, frequency, and monetary model in digital transformation technology, carried out client segmentation and examined seller sales trends using k-means and hierarchical clustering techniques. More than 61.15% of consumers are loyal, according to the results, and prompt product delivery is crucial for both customer satisfaction and sales volume [5]. Vendraminelli et al. aimed to plan and execute digital transformation through a design-driven approach. Based on design theory, they recommended a three-stage process: assessing reality, defining technology transformations methods such as and translating strategy into technological projects[6]. Hugaerts et al. studied the behavior of the Belgian Sports Federation in environmental sustainability and analyzed its environmental initiatives and strategies. The study found that sports federations have a low commitment to environmental sustainability, most actions are low-intensity, and only a few federations have a comprehensive strategic approach [7]. Toukabri and Toukabri explored the social accounting practices that football clubs should follow in the process of implementing social responsibility development and constructed an integrated framework including normative, strategic, operational and higher levels. The study demonstrated that the development of a framework that adjusts to the peculiarities of the football business and highlights the function of cross-disciplinary literature reviews in stimulating further research is necessary for the strategic integration of social responsibility in the sector [8]. Based on the natural resource perspective, Begum et al. proposed a mediation-moderation framework to explore the impact of Green Intellectual Capital (GIC) on green business strategy through the mediation and moderating effects of Green Absorption Capacity (GAC) and Corporate Environmental Ethics (CEE). The research data showed that GIC had a positive impact on GAC and green business strategy, and GAC and CEE played a mediating and moderating role between GIC and green business strategy[9]. Svensson and Radmann's research showed that COVID-19 has accelerated the digitalization of endurance events and highlighted the structural differences in financial support for commercial and non-commercial sports organizations [10]. Gammelsæter and Loland explored the combination of elite competition and environment responsibility. The study found that the extensive collaboration between elite sport and government and commercial agents has driven overdevelopment, threatening the intrinsic values of sport and the natural environment, and therefore called for more environmentally sustainable constraints in sport practice and governance [11]. Although existing research has extensively explored the digital transformation and sustainable development of various industries, there is still a lack of systematic analysis of the specific challenges and solutions faced by sporting goods SMEs in the process of strategic transformation.

### **3. Method**

#### ***3.1 Changes in the External Market Environment***

##### ***3.1.1 Sports industry policy drive***

With the implementation of the national fitness policy, the sports industry has ushered in unprecedented development opportunities. Consumers' increasing attention to health and sports has driven the rapid expansion of the sporting goods market. Small businesses need and a medium-sized companies need to keenly embrace the competitive opportunity brought about by these governmental changes, adjust operations in a timely a manner, and seize competitive share.

##### ***3.1.2 Diversification of consumer demand***

Modern consumers' demand for sporting goods has shifted from single functionality to personalized, intelligent and high value-added products. The diversification of market demand requires companies to continuously innovate products, adjust market positioning and brand strategies in order to adapt to changes in consumer tastes and preferences.

##### ***3.1.3 Changes in market competition***

The competitive pressure from large domestic and foreign brands is gradually increasing, especially the entry of international brands such as Nike and Adidas, which has intensified market competition. During the transformation process, small and medium-sized enterprises must clarify their market positioning and choose appropriate competition strategies in order to occupy a place in the fierce market competition.

#### ***3.2 Technological Innovation and Product Upgrades***

Using technologies such as the Internet of Things, big data, and artificial intelligence, companies can produce products with functions such as intelligent monitoring and health data analysis to meet consumers' demand for high-tech products. At the same time, technological innovation can not only increase the added value of products but also help companies establish differentiated competitive advantages. By increasing R&D investment, enterprises can achieve breakthroughs in product design, functional innovation and production technology, thereby improving their market competitiveness. In order to further enhance their technological innovation capabilities, small and medium-sized enterprises can also establish cooperative relationships with scientific research institutes or universities to obtain advanced technology and R&D support. This cooperation model can effectively improve the R&D level of enterprises, promote product upgrades, and occupy a favorable position in a highly competitive market environment.

#### ***3.3 Brand Positioning and Differentiated Competition***

##### ***3.3.1 Importance of brand positioning***

Against the backdrop of increasingly fierce market competition, small and medium-sized enterprises must clearly define their brand positioning to avoid direct competition with big brands. By defining target consumer groups, market positioning and brand core values, enterprises can form a unique brand image in the market and attract specific consumer groups.

##### ***3.3.2 Differentiated competition strategy***

Enterprises need to focus on differentiated competition and form a unique market positioning through product features, pricing strategies and marketing methods. For example, customized and exclusive sports products can be launched for market segments such as women and children to meet the needs of specific groups.

##### ***3.3.3 Quality and reputation building***

Brand differentiation is not only reflected in product function and design but also in service quality. SMEs can improve customer brand loyalty and enhance word-of-mouth communication effects by optimizing after-sales service and strengthening customer relationship management.

### ***3.4 Channel Innovation and Digital Transformation***

#### **(1) Expansion of online channels**

With the development of e-commerce platforms, the traditional offline sales model can no longer fully meet the needs of consumers. Small and medium-sized enterprises need to actively expand online sales channels, establish their own e-commerce platforms, or enter third-party platforms through cooperation.

#### **(2) Digital Marketing**

With the help of digital tools such as social media, search engine optimization (SEO), and data analysis, companies can accurately analyze consumer behavior and preferences, thereby conducting more precise marketing and improving advertising effectiveness and conversion rates.

#### **(3) Supply chain digitization**

Through digital transformation, small and medium-sized enterprises can achieve refined management of the supply chain, thereby improving operational efficiency, reducing inventory costs, and ensuring that products reach consumers in a timely manner.

### ***3.5 Resource Integration and M&A Expansion***

When facing market bottlenecks, small and medium-sized enterprises can break through difficulties through resource integration. For example, they can establish cooperative relationships with upstream suppliers and downstream distributors, optimize production and sales networks, and thus improve the overall competitiveness of enterprises. On this basis, M&A expansion has become an important strategy for the rapid development of enterprises. Through mergers and acquisitions or joint ventures, small and medium-sized enterprises can quickly enter new markets or acquire new technologies, reduce the time cost of market entry, expand production capacity, and enhance brand influence. However, although mergers and acquisitions bring development opportunities, they are also accompanied by certain risks. When conducting mergers and acquisitions, companies need to fully evaluate the target company's financial status, technological capabilities and market prospects to ensure the robustness and success rate of the M&A decision, thereby achieving sustainable growth.

### ***3.6 Customer Demand and Experience Orientation***

In the transformation process of small and medium-sized enterprises, in-depth insights into customer needs and experiences are crucial. With the rapid changes in consumer demand, companies must pay close attention to these changes and fully understand consumer needs and preferences through big data analysis and market research. This not only helps companies develop more personalized products but also tailor corresponding services according to the specific needs of customers, thereby enhancing the market appeal of products.

In addition, customer experience plays an increasingly important role in enhancing corporate competitiveness. Companies should not only focus on product innovation and quality but also optimize after-sales service, provide personalized services, improve the purchase process, and create a more convenient and pleasant shopping experience. These measures will help improve customer satisfaction and increase consumer loyalty, thereby promoting the long-term development of the company.

In order to further enhance brand competitiveness, enterprises can also enhance customers' shopping experience by innovating value-added services. For example, providing value-added services such as personalized customization, after-sales consultation, and health guidance can not only increase consumers' reliance on the brand but also further improve customer satisfaction and brand loyalty, thereby occupying a favorable position in the fierce market competition.

## **4. Results and Discussion**

### ***4.1 Experimental Group and Control Group***

Experimental group: a group of companies that implement different strategic transformation measures (such as increasing intelligent products, expanding channels, increasing R&D investment, etc.)

Control group: a group of companies that maintain the traditional model and do not make major strategic adjustments

#### 4.2 Data collection and Analysis Methods

Experimental period: 12-24 months, collect data regularly (every quarter)

Data sources:

Enterprise financial reports (sales, costs, market share)

User feedback and questionnaires (satisfaction surveys)

Industry data (market trend analysis)

Analysis methods:

Statistical analysis: t-test or ANOVA is used to analyze the impact of different experimental variables on corporate performance.

Regression analysis: Evaluating the contribution of each factor to corporate sales growth.

Factor analysis: Extracting key influencing factors and optimizing strategic combinations.

The dependent variables of this paper include sales growth rate, market share, customer satisfaction and operating cost change rate, which are designed to measure the performance of enterprises. Sales growth rate reflects market acceptance, market share measures competitiveness, customer satisfaction represents brand influence, and operating cost change rate evaluates the economic feasibility of strategic transformation. These dependent variables together provide a quantitative basis for evaluating the effectiveness of corporate strategic adjustments.

*Table 1. Basic information of companies in the experimental group and the control group*

Company ID	Group	Main Product Type	Number of Employees	Annual R&D Investment (%)	Main Market Position	Primary Sales Channels
A1	Experimental Group	Smart Sports Shoes	200	8.5	Sports Technology Market	Online + Offline
A2	Experimental Group	Smart Sports Apparel	180	7.8	Mass Sports Market	Online + Offline
B1	Control Group	Traditional Sports Shoes	220	3.2	Traditional Market	Offline Only
B2	Control Group	Traditional Sports Apparel	190	2.9	Traditional Market	Offline Only

According to the experimental data in Table 1, the significant differences in various indicators between the experimental group and the control group can be analyzed. From the perspective of R&D investment, the average annual R&D investment of the experimental group is significantly higher than that of the control group (A1 is 8.5%, A2 is 7.8%, while B1 is 3.2%, B2 is 2.9%). This shows that the experimental group companies invest more resources in product innovation, especially in the research and development of intelligent products and high value-added products, which provide strong support for their competitive advantage in the market. From the perspective of market positioning and sales channels, the experimental group companies choose to target the sports technology and mass sports markets and adopt a multi-channel sales strategy combining online and offline.

*Table 2. The impact of different strategic measures on corporate sales growth rate (%)*

Company ID	Smart Product Development	R&D Investment	Brand Positioning	Channel Expansion	Resource Integration	Sales Growth Rate (%)
A1	Yes	High	Niche Market	Yes	Yes	25.4
A2	Yes	Medium	Mass Market	Yes	No	18.7
B1	No	Low	Traditional Market	No	No	5.2
B2	No	Low	Traditional Market	No	No	6.1

Intelligent product development has been actively applied in the experimental group companies (A1 and A2), while the control group companies (B1 and B2) have not developed intelligent products. The products of A1 and A2 have high technological content, and they differ in R&D investment and brand positioning. A1 has a high R&D investment (high), and chooses the market segment as its brand positioning, combined with channel expansion and resource integration, and finally achieves the highest sales growth rate (25.4%). In contrast, A2's R&D investment is moderate, and it chooses the mass market positioning. Although it expands its channels, it does not integrate resources, and its sales growth rate is 18.7%. The control group companies B1 and B2 do not develop intelligent products, their R&D investment is low (low), and they are both positioned in the traditional market, and do not take effective measures in channel expansion and resource integration. These factors lead to their lower sales growth rates, 5.2% for B1 and 6.1% for B2. In particular, B1 and B2 fail to make changes in technological innovation and market expansion, resulting in their slower growth, as shown in Table 2.

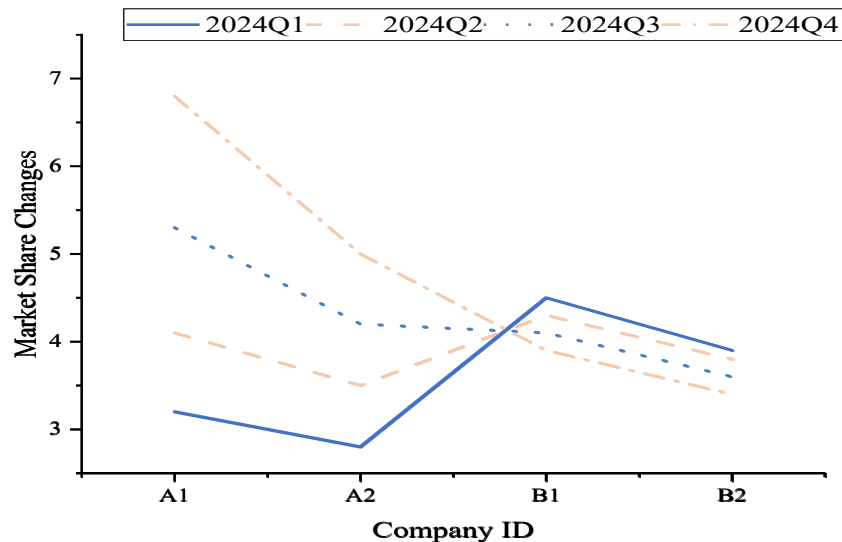


Figure 1. Changes in market share (%)

A1's market share gradually increases from 3.2% in Q1 2024 to 6.8% in Q4, with a significant increase, showing that the company's efforts in product innovation and market expansion have achieved significant results. A2's market share also shows an upward trend, from 2.8% in Q1 to 5% in Q4, but the increase is relatively small, which may be related to its differences in brand positioning and R&D investment. In contrast, the market share of the control groups B1 and B2 show different trends, as shown in Figure 1.

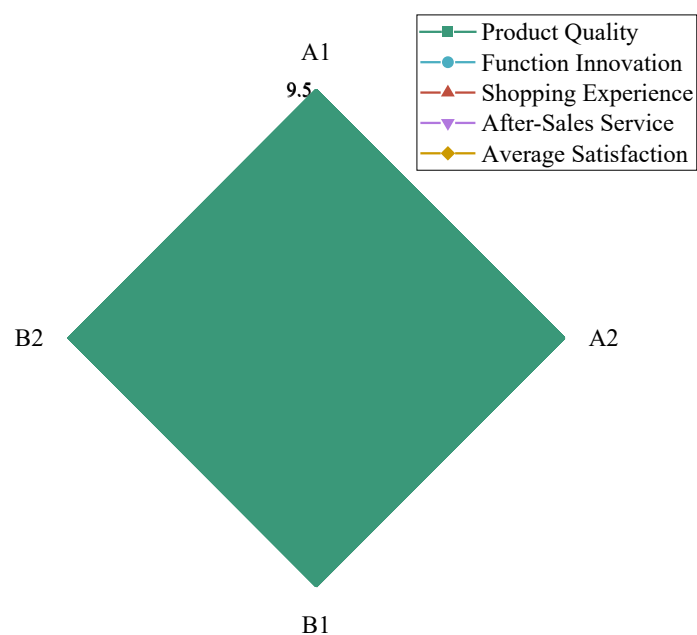


Figure 2. Customer satisfaction rating (full score 10 points)

According to the customer satisfaction rating shown in Figure 2, the customer satisfaction performance of experimental group A1 is the best, with an overall score of 8.7 points. B1's overall satisfaction is 6.9 points, and its performance in functional innovation (6.5 points) and after-sales service (6.8 points) is particularly poor, indicating that its innovation in products and services is insufficient and it might be difficult to meet the diverse needs of consumers. B2's overall satisfaction score is 7.1 points. Although it performs relatively well in terms of shopping experience (7.5 points) and after-sales service (7 points), its performance in product quality and functional innovation is relatively weak, at 7.2 points and 6.8 points, respectively, showing its disadvantage in market competition.

According to the changes in enterprise operating costs shown in Figure 3, the operating costs of experimental group A1 in 2024 shows a quarterly growth trend, eventually reaching 4.2 million yuan, with a total cost growth rate of 31.3%. A1's operating costs grew relatively fast, indicating that it may have made large-scale investments and resource allocations in expanding product lines, strengthening R&D investment, or other business areas. This higher growth rate may also be related to its strategic layout in intelligent product development and channel expansion. The operating cost growth of experimental group A2 is milder than that of A1. The operating costs in the four quarters of 2024 gradually increases from 2.8 million yuan to 3.5 million yuan, with a total cost growth rate of 25%. Although A2's cost growth is relatively stable, it still shows a certain increase in expenditure on mass market layout and channel expansion. Compared with A1, A2's cost growth is more moderate, which may mean that its expansion strategy is relatively cautious.

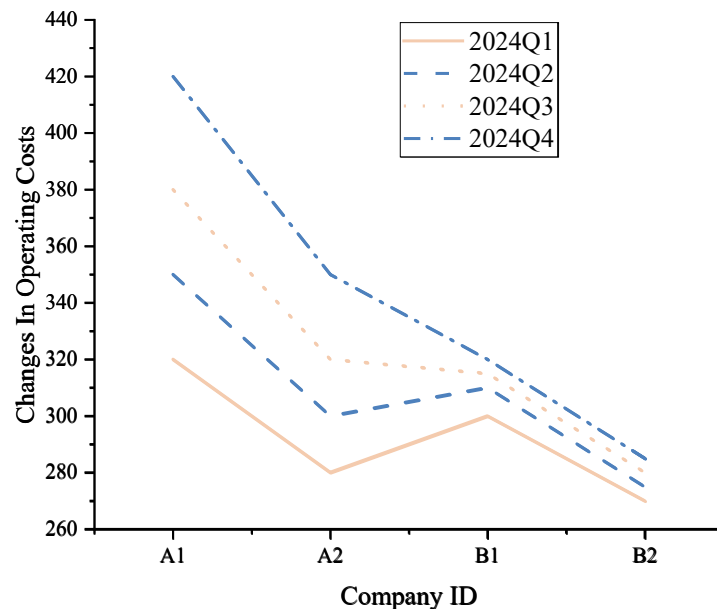


Figure 3. Changes in enterprise operating costs (unit: 10,000 yuan)

## 5. Conclusion

This paper analyzes the key factors faced by small and medium-sized sporting goods companies in the process of transformation, and explores the impact of intelligent product development, technological innovation, brand positioning, channel expansion, etc. on corporate sales growth rate, market share, customer satisfaction, and operating costs. Through comparative analysis of the experimental group and the control group, the study finds that intelligent products and technological innovation have played a significant role in improving corporate market competitiveness, increasing sales growth, and improving customer satisfaction. Resource integration and optimized channel expansion have created more opportunities for enterprises in the fierce market environment and promoted the improvement of overall operational efficiency. However, this study still has certain limitations. First, the experimental data only involves a sample of some companies and may not fully reflect the general trend of the entire industry. Second, the research mainly focuses on the impact of intelligent transformation, and the exploration of other transformation paths is relatively limited. Future research can further expand the sample range and explore in depth the impact of different types of transformation strategies on the development of SMEs. At the same time, with the continuous changes

in technology and the market, more emerging technologies, such as artificial intelligence and big data analysis, can be combined in the future to further enrich the theoretical and practical guidance of the transformation of sporting goods enterprises.

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