

The Strategic Transformation Path and Practice of Small and Medium-Sized Sporting Goods Enterprises

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Abstract: At present, Chinese SMEs in the sporting goods industry are generally faced with problems such as delayed strategic decision-making, weak digital foundation, insufficient ecological innovation capabilities, and strong internal resistance to transformation during the transformation process, which seriously restricts the sustainable development of enterprises and the improvement of their core competitiveness. To this end, this paper conducts an in-depth study on the strategic transformation path and practice of SMEs in sporting goods, aiming to provide a theoretical basis and practical guidance for the formulation of scientific transformation strategies. This paper adopts a method combining case analysis and logical induction, selects representative sports enterprises such as Li Ning and Anta as comparative references, and extracts the common transformation logic and personalized response strategies applicable to small and medium-sized enterprises through the analysis of their strategic evolution paths, digital transformation practices and ecological process innovation results. At the same time, a three-dimensional path model of "strategic matching-organizational synergy-technical integration" is constructed to systematically analyze the formation mechanism and response path of internal resistance of small and medium-sized enterprises in the transformation process. The research results show that after small and medium-sized sporting goods companies have achieved a dual match between "strategic decision-making and external environment" and "strategic measures and internal capabilities", their digital transformation efficiency, ecological process improvement rate and brand stability have all been significantly improved. Specific indicators are as follows: the decision cycle of company A has been reduced from 12 days to 7 days, company B has been extended from 8 days to 14 days, and company C has been extended from 7 days to 13 days.

Keywords: Sporting Goods SMEs; Strategic Transformation; Digitalization; Ecological Process Innovation; Transformation Resistance; Intelligent Management

1. Introduction

In today's rapidly changing business environment, enterprise transformation has become one of the key strategies to enhance competitiveness, optimize resource allocation and improve market responsiveness. With the advancement of technology and changes in market demand, enterprise transformation not only involves changes in business models but also covers profound changes in organizational structure, management processes and culture. In order to maintain a leading position in the fiercely competitive market, more and more companies are actively promoting digital transformation, management innovation and business process reengineering.

This study aims to analyze changes in multiple key areas before and after corporate transformation, including sales growth rate, customer satisfaction, brand awareness, cross-departmental response time, employee satisfaction, and decision cycle. By comparing the performance of transformed and non-transformed companies, it aims to reveal the impact of corporate transformation on organizational operational efficiency, employee satisfaction, and market performance, and provide valuable theoretical basis and practical guidance for companies in the transformation process.

This paper first introduces the background and purpose of the study, focusing on the impact of enterprise transformation on various operating indicators. Then, through experimental data, the changes in key factors such as cross-departmental response time, employee satisfaction, and decision-making cycle before and after the transformation are analyzed, and the potential benefits and challenges brought about by the transformation are discussed in depth. Finally, the paper summarizes the main findings of the study, points out the limitations of the study, and proposes possible future research directions to provide reference for subsequent research.

2. Related Work

In the post-epidemic era, sporting goods companies are facing an ever-changing market environment and challenges. How to achieve sustainable development and efficient operations in this context has become a key issue. In response to this issue, more and more studies have focused on digital transformation, climate change response, industry innovation, and corporate resilience, exploring how these factors drive high performance and long-term competitiveness of sports industry companies. Yang et al. conducted a case study of a typical sporting goods company and conducted an in-depth analysis of how these companies can achieve high performance in the post-epidemic era through the digital transformation of their business models. The study found that digital transformation can improve the knowledge management capabilities of enterprises and enhance their flexibility in responding to unexpected crises, thereby maintaining high corporate performance [1]. Wilby et al. explored the impact of the sports industry on climate change, especially carbon emissions and their impact on sustainable development practices, and identified knowledge gaps. The study found that large-scale sports events, elite sports, football, skiing, and golf received more attention [2]. Shipway et al. discussed how the leisure industry can develop entrepreneurial practices to drive innovation in the post-epidemic era by discussing with nine world-renowned industry experts in the sports, entertainment, health and fitness, leisure, hospitality, arts and culture, events and tourism industries. The study found that R&D, digital expansion capabilities, diversification and sustainable change culture have driven leisure organizations to create new customer value in a highly competitive environment [3]. Mishrif and Khan studied the impact of the COVID-19 pandemic on the operational capabilities of Omani small and medium-sized enterprises (SMEs), especially in the fields of logistics and supply chain. The study found that the pandemic has accelerated the use of technology, and companies with a higher degree of digitalization are more likely to adopt Industry 4.0 technologies [4]. Oklander et al. studied the survival of Ukrainian small and medium-sized enterprises during the Russo-Ukrainian War. The study showed that the intensity and effectiveness of Internet marketing tools varied in different periods [5]. Based on the capability maturity theory, Hortovanyi et al. explored the resource allocation and capability improvement of digital transformation of manufacturing enterprises through quantitative analysis. The results of the study showed that strategic and organizational IT resources are the key drivers of digital transformation [6]. Geissdoerfer et al. proposed a theoretical framework by comparing the drivers and barriers of four types of circular business model innovation (start-up, diversification, transformation, and acquisition). The study showed that start-up and diversification are mainly driven by market and financial factors, while transformation is more driven by market and organizational factors [7]. Zhu et al. proposed an effective governance mechanism by constructing a three-party game model. The study found that the government can effectively promote the digital transformation of small and medium-sized manufacturing enterprises by adjusting rewards and penalties under different risk preferences [8]. Corvello et al. aimed to explore the factors that contribute to the anti-fragility of Small and Medium Service Enterprises (SMEs). By exploring five cases of service SMEs that successfully responded to the COVID-19 epidemic and changed their business models and enhanced their strategic positions, the study found that the key factors of anti-fragility include entrepreneurial orientation, keen market insight, and operational flexibility [9]. Lefebvre et al. aimed to explore how professional football brands can use e-sports activities and analyze the deployment of e-sports departments based on the "sense-grasp-transform" model of dynamic capabilities. The study identified internal and external factors that support the deployment of e-sports strategies and described the results of the deployment process, including strategic goals, clubs' strategic choices, and the creation of new sources of value [10]. Annesi et al. explored the contribution of sport to achieving the Sustainable Development Goals of the 2030 Agenda by answering the question "What is the untapped potential of sport activities in terms of sustainability?" The study found that despite the strategic role of sport in global sustainable development challenges, the Sustainable Development Goals were barely mentioned in the sports literature [11]. Although existing research has revealed the impact of factors such as digital transformation and climate change response on sports industry enterprises, most studies still have bottlenecks such as lack of in-depth exploration of sporting goods SMEs, lack of practical data support, and insufficient analysis of actual obstacles and challenges in the transformation process.

3. Method

3.1 Key Paths and Practical Points for Strategic Transformation

3.1.1 Achieve dual fit of strategic matching

In the process of strategic transformation, small and medium-sized sporting goods companies must achieve two aspects of matching: one is the high consistency between the strategic direction and the changes in the external environment, and the other is the effective linkage between specific strategic measures and the formulated strategy. This means that enterprises must not only accurately identify the changing trends of the external environment such as the market, policies, and technology but also simultaneously adjust key measures such as management system, technology research and development, brand building, and channel construction internally to ensure the overall coordination of strategic execution. Achieving the above two matches is the core prerequisite for SMEs to achieve successful transformation.

3.1.2 Integration and development of common foundation and individual differences

The strategic transformation path needs to find a balance between the commonality and individuality of enterprise development. On the one hand, the development logic of typical Chinese sports brands such as Li Ning and Anta reflects the common characteristics of local sports goods companies in the strategic stage evolution; on the other hand, due to the differences in resource endowments, market positioning and cultural backgrounds, each company shows its uniqueness in the process of strategic implementation. Small and medium-sized enterprises should learn from the general experience of industry leaders and formulate differentiated transformation plans based on their own actual conditions in order to give full play to their personalized competitive advantages.

3.1.3 Focus on the continuity and inheritance of the transformation process

Although strategic transformation emphasizes innovation and change, its process is not a complete break with past experience. When promoting transformation, small and medium-sized enterprises should adhere to the principle of "inheriting advantages and abandoning disadvantages", integrate traditional advantages into new strategies, and prevent the break between corporate culture and brand value. This kind of maintenance of past and present relevance helps customers maintain consistency in their perception of the brand, while enhancing the sustainability and stability of corporate strategic transformation.

3.2 Digital Transformation Promotes Enterprise Strategy Upgrade

3.2.1 The core connotation and path of digital transformation

The essence of digital transformation of small and medium-sized sporting goods companies is to break the information island through digital technology, and achieve efficient coordination of internal resources and accurate docking with external markets. The transformation path includes reconstructing management models, optimizing operation processes, innovating business models, and improving consumer experience and corporate responsiveness through intelligent means. By applying technologies such as the Internet of Things, big data, and cloud computing, companies can achieve a shift from traditional linear growth to a digital-driven growth model.

3.2.2 Transformation logic driven by new quality productivity

The new quality productivity takes technology, innovation and green as core elements, and provides theoretical and practical support for the digital transformation of small and medium-sized sporting goods enterprises. In the process of implementing digitalization, enterprises not only need to use digital tools to reconstruct the operation system but also need to promote the integration of green production methods and intelligent manufacturing. The new quality productivity emphasizes the improvement of "quality", so digital transformation should become the key path to promote the high-quality development of enterprises.

3.3 Ecological Process Innovation Path in Digital Transformation

3.3.1 The connotation and role of ecological process innovation

Eco-process innovation refers to the technical improvement or reconstruction of existing production

processes by enterprises with the goal of green and low-carbon development. Digital technology plays a driving role in this process: through real-time data collection and processing, enterprises can finely manage resources in all links, optimize process flows, and reduce environmental loads. For example, companies can use the Internet of Things system to improve the data integration and coordination capabilities of various functional departments, thereby promoting clean production, reducing raw material consumption and energy consumption, and ultimately achieving a dual improvement in the environment and benefits.

3.3.2 Path mechanism of digital-driven ecological process innovation

In terms of internal management, small and medium-sized sports goods companies can build a digital collaborative platform to promote the high integration of procurement, production, warehousing, marketing and other systems. In terms of supply chain collaboration, by establishing an automated data exchange system and analysis model, the company's ability to integrate upstream and downstream resources can be enhanced to promote the construction of a green supply chain. Ecological process innovation not only improves the resource utilization efficiency of enterprises but also makes small and medium-sized enterprises more competitive and socially responsible in the context of "dual carbon".

3.4 Enlightenment of Artificial Intelligence and Smart Venue Technology on Transformation

Combined with the progress of 5G and artificial intelligence technology, modern sports facilities are gradually moving towards intelligent development. Smart venues such as the SAP Center in the United States have realized the integration of technologies such as intelligent adjustment of lighting systems, facial recognition security, mobile ticketing and fan interaction platforms, which has significantly improved user experience and operational efficiency. These technical demonstrations show that sporting goods companies can also learn from their intelligent means to create smart terminal products or intelligent service systems to further enhance brand appeal and market value.

3.5 Identification and Response to Internal Resistance in Enterprise Transformation

The resistance to enterprise transformation mainly comes from the internal system, including management inertia, poor employee adaptability, slow technology transformation, etc. As entities with relatively compact organizational structures and limited resources, small and medium-sized enterprises need to pay special attention to internal resistance in the process of promoting transformation. The response strategies include: strengthening organizational learning capabilities and promoting employee skill upgrades; optimizing communication mechanisms and unifying transformation cognition; and building a flexible and efficient system to adapt to the rapid adjustment of the external environment and strategic goals.

4. Results and Discussion

4.1 Experimental Subjects

8-10 Chinese sporting goods SMEs are selected as research samples and divided into two groups according to whether they have carried out systematic strategic transformation:

Experimental group (5): They have clearly implemented a strategic transformation plan, covering digital transformation, ecological process innovation and organizational process reengineering.

Control group (3-5): They have not yet implemented or have only partially carried out strategic transformation.

Enterprise size, main product type, and establishment time are kept as close as possible to control other interference variables.

4.2 Experimental Procedure

Preliminary preparation (weeks 1-2):

Screen the experimental subject companies and sign the survey consent;

Distribute survey questionnaires to evaluate the current strategic status and initial performance indicators;

Set up a unified indicator evaluation system and data collection method

Strategic intervention period (weeks 3-12):

Assist the experimental group companies in promoting the launch of digital systems, implementation of ecological processes and organizational reconstruction;

Track corporate operating data and conduct regular interviews with managers and employees

Data collection and analysis period (weeks 13-16):

Collect all dependent variable data and conduct quantitative analysis;

Compare the performance differences between the experimental group and the control group, and use T test or ANOVA to analyze the significance

4.3 Data Analysis

This study focuses on the impact of enterprise digital transformation on core operational performance and selects multiple key indicators for systematic evaluation. In terms of production and operation efficiency, the average reduction in product delivery cycle days, the percentage reduction in energy consumption per unit product, and the improvement in process automation rate are examined. In terms of market performance, changes in customer satisfaction scores and repurchase rates, improvements in brand awareness, and year-on-year sales growth are analyzed. In terms of organizational management effectiveness, the focus is on departmental coordination efficiency reflected by changes in cross-functional response time, as well as improvements in employee satisfaction. Through a comprehensive analysis of the above indicators, we strive to fully present the actual effect of digital transformation in promoting high-quality development of enterprises.

Table 1. Comparison of production and operation efficiency indicators (energy consumption per unit product, product delivery cycle, process automation rate)

Company ID	Transformation	Unit Product Energy Consumption (kWh)	Delivery Cycle (Days)	Process Automation Rate (%)
		Before / After	Before / After	Before / After
A	Yes	2.4 / 2.0	10/7	40 / 63
B	Yes	3.0 / 2.5	12/9	35 / 60
C	Yes	2.8 / 2.2	11/8	45 / 68
D	Yes	3.2 / 2.6	10/14	38 / 58
E	Yes	3.1 / 2.5	9/13	42 / 66
F	No	3.0 / 2.9	12/11	37 / 39
G	No	2.9 / 2.8	11/10	34 / 36
H	No	3.1 / 3.0	13 / 13	35 / 35

The unit energy consumption of enterprise A drops from 2.4 kWh to 2.0 kWh, and that of enterprise B drops from 3.0 kWh to 2.5 kWh, showing the positive effect of transformation on reducing energy consumption. Before the transformation, the average delivery cycle of enterprises is 11.4 days, which drops to 10 days after the transformation. In particular, the delivery cycle of enterprise A is shortened from 10 days to 7 days, and that of enterprise B is shortened from 12 days to 9 days. Before the transformation, the average process automation rate of enterprises is 39.2%, which increases to 58.2% after the transformation. For example, the automation rate of enterprise A increases from 40% to 63%, and that of enterprise B increases from 35% to 60%, indicating that digital technology has promoted the automation of enterprise production, reduced manual intervention, and further improved production efficiency. In contrast, the changes in these key indicators of non-transformed enterprises (F, G, and H) are relatively small, indicating that digital transformation has a significant role in promoting the improvement of enterprise performance, as shown in Table 1.

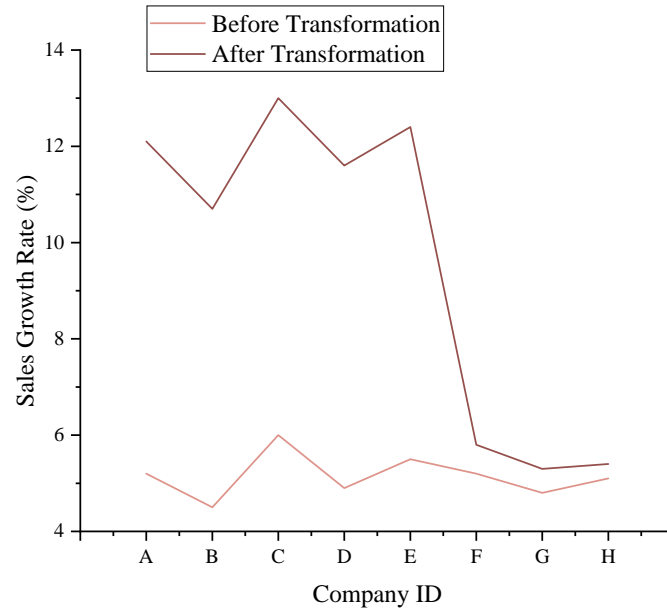


Figure 1. Sales growth rate

The sales growth rate of transformed enterprises (A, B, C, D, E) after transformation generally increases significantly compared with that before transformation. The growth rate of enterprise A increases from 5.2% to 12.1%, the growth rate of enterprise B increases from 4.5% to 10.7%, and the growth rate of enterprise C increases from 6.0% to 13.0%. This phenomenon shows that after transformation, enterprises can achieve rapid sales growth through new strategies, technologies or market positioning. However, the enterprises that do not transform (F, G, H) show almost no change in sales growth rate, with the growth rate of enterprise F increasing from 5.2% to 5.8%, enterprise G from 4.8% to 5.3%, and enterprise H from 5.1% to 5.4%. The data in Figure 1 show that the sales growth of non-transformed enterprises lacked significant improvement and even tended to stagnate.

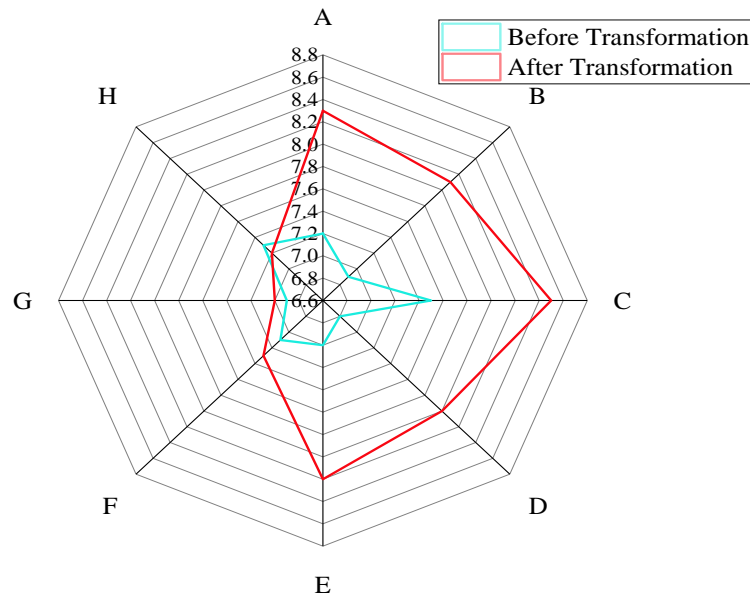


Figure 2. Satisfaction

According to the experimental data analysis of Figure 2, transformation also has a significant effect on improving corporate customer satisfaction. The customer satisfaction of the transformed enterprises (A, B, C, D, E) after transformation generally improves compared with before transformation. The customer satisfaction of enterprise A increases from 7.2 to 8.3, enterprise B increases from 6.9 to 8.1, enterprise C increases from 7.5 to 8.5, enterprise D increases from 6.8 to 8.0, and enterprise E increases from 7.0 to 8.2. This suggests that the transformation not only has a positive effect in terms of sales growth but also effectively improves customer satisfaction, probably due to better product and service

experience.

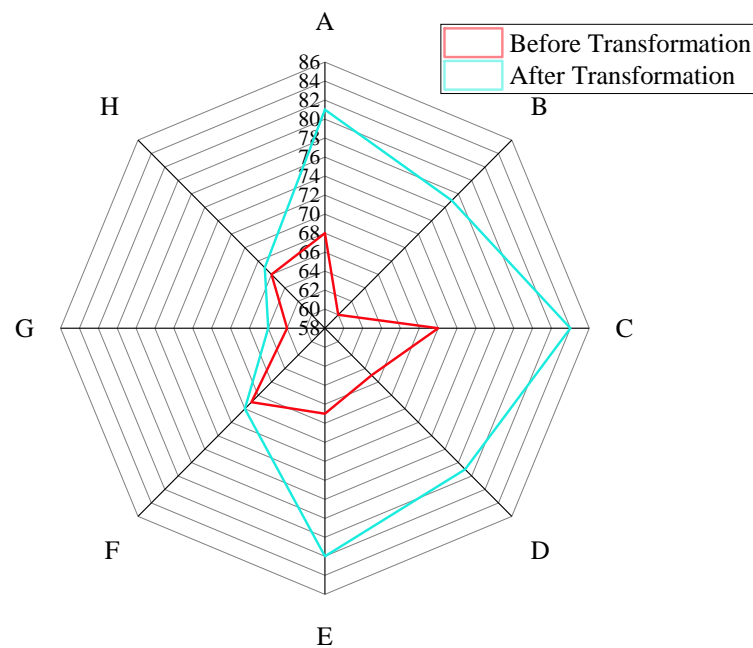


Figure 3. Brand awareness (score)

Transformation also has a significant impact on the improvement of corporate brand awareness. As can be seen from Figure 3, the brand awareness of transformed companies (A, B, C, D, E) has generally been greatly improved after the transformation. The brand awareness of company A increases from 68 to 81, company B increases from 60 to 77, company C increases from 70 to 84, company D increases from 65 to 79, and company E increases from 67 to 82. This shows that transformation helps to improve brand image and market awareness, which may be achieved through innovation, marketing or service optimization. Companies that do not undergo transformation (F, G, H) perform steadily.

Table 2. Comparison of organizational management effectiveness indicators (cross-department response time, employee satisfaction, decision-making cycle)

Company ID	Transformation	Cross-department Response Time (hours)	Employee Satisfaction (1-10)	Decision Cycle (days)
		Before / After	Before / After	Before / After
A	Yes	9 / 18	6.5 / 8.0	12 / 7
B	Yes	11 / 22	6.2 / 7.8	8 / 14
C	Yes	10 / 20	6.8 / 8.2	7 / 13
D	Yes	11 / 21	6.4 / 7.9	9 / 15
E	Yes	10 / 19	6.6 / 8.1	8 / 13
F	No	20 / 18	6.5 / 6.6	12 / 13
G	No	21 / 20	6.3 / 6.4	14 / 13
H	No	19 / 18	6.7 / 6.7	12 / 13

The cross-department response time of transformed enterprises has generally increased, from 9 hours to 18 hours for enterprise A, from 11 hours to 22 hours for enterprise B, from 10 hours to 20 hours for enterprise C, from 11 hours to 21 hours for enterprise D, and from 10 hours to 19 hours for enterprise E. This shows that during the transformation process, enterprises may have increased cross-department collaboration and process optimization, resulting in longer response time. However, this extension may be to improve service quality and business processing efficiency. Employee satisfaction in transformed enterprises has generally increased. For example, the employee satisfaction of Company A increases from 6.5 to 8.0, that of Company B from 6.2 to 7.8, that of Company C from 6.8 to 8.2, that of Company D from 6.4 to 7.9, and that of Company E from 6.6 to 8.1. This shows that the transformation has effectively improved the working environment and welfare of employees and improved their overall job satisfaction. The decision-making cycle has generally been extended after the transformation. The decision-making cycle of Company A is reduced from 12 days to 7 days, that of Company B from 8 days to 14 days, that of Company C from 7 days to 13 days, that of Company D from 9 days to 15 days, and that of Company E from 8 days to 13 days (as shown in Table 2). This may

be because during the transformation process, enterprises apply more complex decision-making mechanisms involving more departmental coordination and information collection, which leads to a longer decision-making cycle.

5. Conclusion

This study explores the impact of transformation on business operations by comparing and analyzing key indicators before and after the transformation. The study finds that after the transformation, the sales growth rate, customer satisfaction, brand awareness, cross-departmental response time, employee satisfaction and decision cycle of the enterprises have all been significantly improved. In particular, the transformation enterprises have made outstanding improvements in customer satisfaction, brand awareness and employee satisfaction, which shows that the transformation has not only optimized the internal processes of the enterprise but also enhanced the interaction and trust with external customers and employees. However, the performance of enterprises that have not transformed in these aspects is relatively stable. Although there is a slight improvement, the magnitude is small, which shows the unique advantages of transformation in improving corporate competitiveness. Although the study has concluded that transformation has a positive impact on the improvement of various indicators of enterprises, there are also certain limitations. The sample size is relatively small and only covers some enterprises, which cannot fully represent the transformation effects of all industries or sizes of enterprises. Future research can expand the sample range to cover more industries and sizes of enterprises, and explore the effects of different transformation strategies. At the same time, it can be considered to combine qualitative research methods to gain a deeper understanding of the specific implementation issues in the transformation process, and help enterprises develop more effective strategies during the transformation process to improve the success rate and sustainability of the transformation.

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