

# Analysis on the application of strategic information system of ERKE

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**Abstract.** ERKE as an early well-known domestic sports brand, its sales and management mode has its uniqueness, this paper analyzes the SIS characteristics, advantages and suggestions of ERKE brand by comparing it with the SIS of its main competitor brand Li-Ning.

**Keywords:** Strategy Information System, Supply Chain Management, Smart Store.

## 1. Introduction

Established in 2000, ERKE is one of the leading sports brands owned by a Chinese company called Hong Xing Erke Group. It has comprehensive capabilities in Research & Development, manufacturing, and marketing, providing professional sports products, including sportswear, footwear, and accessories, to the mass market in China. Like its domestic competitors such as Anta, Lining, and Xtep, it is the first group that went nationwide, and it has expanded to more than 7000 stores in China nowadays. The company mainly focuses on the low-end market, and the price of its sports shoes is within the price range of consumers in the sinking market. ERKE was listed in Singapore in 2005, becoming the first sports brand listed abroad. Driven by Beijing Olympics, the enthusiasm for national sports is high, and the demand for sports shoes has increased dramatically. It has brought domestic brands into rapid development. As the sponsor of the Olympics, the market share of ERKE also increased significantly.

However, after the Beijing Olympic Games, the company was too optimistic about its sales performance and consumers' demand. As a traditional sports brand, it relies on the wholesale model, which produces many products and then delivers them to its distributors. The company failed to transform its strategy and just designed and produce the product, rarely reaching its end customers. Besides, it faced fierce competition from domestic and international sports brands, the products lacked innovation, and the marketing cost increased. As a result, the rapid expansion led to an inventory crisis, and many low-efficiency stores were closed. Nowadays, its competitors like LiNing have developed a multi-brand and DTC (direct to consumer) strategy. They are no longer deliver their products through the distribution networks. Instead, the product can be delivered to their end-customer directly, enabling these companies to design the products based on consumers' needs and quickly respond to the latest market trend, attracting the generation Z group. However, the previous popular sports brand ERKE is gradually forgotten by customers. So ERKE needs to transform its traditional model to utilize the strategic information system to respond to the consumer's needs quickly and thus steal the market share from its competitors.

## 2. The strategic information system of LiNing

The main competitor of ERKE is LiNing, which is a professional sports brand founded by a well-known athlete. Unlike ERKE, the company is constantly upgrading in design and technology, and it has transformed its strategy to Direct To Customer marketing successfully. The transformation helps LiNing build stronger customer relationships and maintain the communication of the brand and end-users. The strategy information system utilized by Lining to adjust its strategy is the supply chain management system and computing cloud system.

Supply Chain Management System: the system integrates information among different departments, including suppliers, manufacturing industry, sales, and end consumers. The platform can collect real-time sales data from stores and deliver it to plants and the product design departments. And then, the plant can provide flexible replenishment plans, and product design departments can design its products according to sales performance and customer needs.

Computing Cloud System: When customers visit the offline store, the computing cloud system can collect customers' information during the whole process. For example, if customers try on or buy products, the system can store the transaction information and analyze the popularity of different products. And the system can provide the clients with personalization recommendations based on their data. In addition, the system would be able to analyze the active area (attracting most customers to visit) and the static site. Therefore, the company can capture the selling trend of products and thus understand customers' preferences and make flexible marketing strategy adjustments.

### **3. ERKE's SIS**

#### **3.1. The importance of DTC**

The top brands could capture trends and market changes in common. DTC represents the latest consumer trends and developments. DTC means “direct-to-consumer” brand. Intermediate links are removed through direct sales channels, allowing brands to conduct direct-to-consumer product sales and communication activities. With Gen Z and the COVID-19 pandemic, consumer behaviors, attitudes, and motivations have changed. DTC meets new consumer expectations. Brands will have the opportunity to collect more granular user data throughout the user journey to help brands formulate marketing strategies that guide the brand. In addition, the DTC model can significantly reduce business operating costs. By cutting out external intermediaries, brands can spend more of their budget on branding and products. Furthermore, it could help brands build relationships with consumers.

More and more brands are trending towards DTC in China, which is the general trend. As the Chinese consumer group is gradually getting younger, Gen Z consumers have become the main force of Chinese consumption. Generation Z is also the leading target group for marketing under the DTC business model.

#### **3.2. ERKE's DTC based innovation and sale strategy**

With advanced logistics, powerful internet, and mobile devices, the Preconditions for implementing the DTC strategy are satisfied by ERKE. The highly competitive market pushes ERKE to reduce costs by cutting down the agents in the sales chain, thus providing the customers with a competitive price.

Besides the issue of cutting costs, another factor for implementing a DTC strategy is that ERKE can closely connect with their customers through DTC strategy, knowing which products are popular for customers and what needs are in consideration of customer purchasing and providing customer-designed scenes that might build the brand influences.

Everything has two sides. If ERKE turns its resources to implement the DTC strategy, the connection between ERKE and its dealer will be weak, even from partners to competitors. That means ERKE will have fewer sales channels and need to build its own sales system online and offline, which might cost the mass of ERKE.

However, it is necessary for ERKE to change, although there are many risks behind the revolution because the traditional sales system is working negatively in the long term for ERKE: with high salaries and economics growing, customers are intended to pay for the products with famous brands and closing services, not only something you can buy everywhere but common, and the traditional sales system can not accomplish it. ERKE might lose its brand attraction for customers and thus fall.

Therefore, ERKE should not be too hasty in implementing the DTC strategy and, in contrast, maintaining a distribution system of a particular scale, investing resources into the reform of core provinces. Expanding the scale of smart stores in traditional market segments such as Fujian, Guangdong, and Jiangxi and optimizing the construction of smart store systems are the things that ERKE should focus on at present.

In ERKE's DTC strategy, we should learn from Li Ning's experience in smart store construction and combine ERKE's situation to determine the direction of smart store construction and the management of the self-operated system.

In the construction of smart stores, we use the DTC strategy to reduce costs, expand brand influence, and collect more accurate data to provide directions for future scientific and technological research. Unlike Li Ning itself, which has a vital trend attribute, Hongxing Erke is praised for its UV-COOL technology (which makes shoes more breathable and comfortable), TOUCH Elastic Technology, HO-COOLIN(C) technology, and domestic product attributes. Therefore, in the construction of smart stores, the relevant trend attributes will be weaker, and the comfort of related technologies such as UV-COOL can be more emphasized.

In the construction of store IS, the most important thing is learning Lining and using the computing cloud system to improve the efficiency of analysis and sensing. It is not only necessary to collect consumers' preferences on product styles, but also to collect consumers' preferences and experience sharing for different technologies.

In terms of facade construction, we can focus on building brand images such as the light of domestic products and compete with Lining at different sub-market.

### **3.3. The unique advantage of ERKE's DTC strategy**

ERKE has been quickly known for its good charitable and domestic image in recent years of online incidents. Consumers have significantly favored this in the last few months (an order of magnitude more purchases than other brands).

Therefore, for ERKE, it is not only a reputational resource that can be realized but also provides a large amount of online transaction data of consumers. Therefore, in the construction of ERKE smart stores, online and offline data resources can be integrated to design stores, improve links, and make full use of online resources.

For example, according to the geographical distribution of online purchases, we can first determine the distribution of people who like ERKE the most and take the lead in building smart stores in these cities. At the same time, according to this large-scale data, we can distribute the styles and series with the highest praise rate in advance.

In the construction of the smart store system, ERKE needs to use the combination of online and offline data to give full play to these advantages of the brand.

### **3.4. Suggest of ERKE Group SIS**

As early as 2003, ERKE established the development direction of leading technology, committed to being the "REKE of Science and Technology," and focused on technological innovation. With the accelerated iteration of technologies such as the Internet, big data, and cloud computing. With the help of the professional information technology team, ERKE enhances the digital empowerment operation capability and upgrades the user experience with digitalization. ERKE is building its digital core competitiveness. In terms of brand marketing, ERKE has established cooperation with traditional media and emerging media to provide strong support for market development and expand brand influence through media resources. Expand multiple sales channels through the dual-channel marketing model of "physical sales and online sales."

As the pace of new retail accelerates, a data-driven pan-retail format centered on the consumer experience continues to emerge, with smart shops becoming another major battleground for new retail. However, ERKE's existing smart stores cannot keep up with the progress of the times, and ERKE's smart stores are stagnant at the beginning of development. It cannot meet the many needs of customers. Thus, We recommend ERKE upgrade the smart store.

ERKE could use data value to help brands understand customers, transform data, and improve efficiency. Add strategic information systems called "Intelligent Information systems" in its smart shop operations. There could set with two high-definition cameras at the entrance of the ERKE smart store, which can determine the gender and age range of consumers. There are dozens of cameras in the store to capture each consumer's shopping route and trajectory. Through the 'Wide Heat Sensor,' it could vividly monitor and record the route and changes of the heat distribution in the store and diagnose hot and cold areas in the store. The cold area means that customers stay in this area for a short time, and the hot area implies that customers spend a long time in this area. That's beneficial to help companies analyze customer preferences. It could more clearly understand which shelf products most customers like through the hot and cold areas.

ERKE could design the smart store with three smart scenarios: smart cloud shelves, smart interactive screens, and try-on statistics. The store combines RFID sensing of products with large interactive screens. The interactive screen displays product details and recommended collocations when the customer picks up the product. As an "intelligent electronic shopping guide," it provides consumers with a more intuitive and comprehensive product introduction and a more novel interactive experience. Through the cloud shelf, the store could display more products. Consumers can also check the discounts in real-time and freely choose home delivery or store pickup mode.

Since ERKE's smart stores and online systems are still two relatively independent systems, we suggest that ERKE can surpass its competitors by linking online and offline decision-making opinions. ERKE's SIS and the online membership system realize data linkage and can feedback the data collected offline to the online system to help the online push better.

Regarding the use of the membership system, many customers have reported that registering an account and logging into an account is too cumbersome, and they feel inconvenient when paying. Thus, it suggested that ERKE can cooperate with Alipay and become a member through one-click authentication through Alipay. And realize automatic points at the time of payment. To facilitate customers as much as possible, meet customer needs, and improve customer satisfaction.

## **4. IS planning Issues**

### **4.1. Definition of IS strategy**

In terms of IS planning definition, ERKE clearly updated the direction is based on the existing foundation to establish online system, for the organizational computing goal is to establish online membership system and online database to help Hongxing Erke better expand the customer population. And identify potential computer application will be to combine the customer data collected from offline smart stores with the membership information in the online membership system, and provide more targeted promotion strategies and customer service content for customers through data algorithms to achieve the effect of online and offline linkage.

On the perspective of Definition of IS Strategy, ERKE identified the business aim which is oriented to digital transformation, and the sales strategy is based on DTC, shifting ERKE from traditional sports brand to new retail. That is to say, the original business model combined with the Internet, customer demand as the main content-oriented, together with online promotion and offline store operations, to create a  $1 + 1 > 2$  effect.

## 4.2. Barriers in IS planning

In the implementation of similar brand strategies in the past, we found barriers that were not supported by top management, technology could not be followed up, and there were no partners. Nonetheless, none of these issues relate to this shift in ERKE. First of all, the top management is very supportive of ERKE's transformation and is led by the CEO to support this IS strategy change, the CEO, and we are on the same front looking forward to ERKE's new market. Our technology is now very mature, and whether it is the establishment of the online live room or the creation of an online membership system, there are many past examples to learn from. And for the cooperation part, we have Alipay as our partner in the new strategy. Both the IT technical support and the commercial value from Alipay will help us a lot in the transformation. So these can be common barriers that will not appear in ERKE, which also ensures that the implementation of our strategy will be no accident.

## 4.3. Success factors for IS planning

ERKE's new strategy is a continuous process because our strategy change responds to the overall environment change. It has been upgraded to a new retail model. The purchase form is not limited to online or physical stores, and the services provided are more comprehensive. Now is the Internet information era so we will be the traditional retail business combined with information systems.

Bringing new ideas to the industry will gradually lead more sports brands to digital transformation. Whether it is the company's image or customers' experience, they will be a total upgrade. It is also a learning process because ERKE is towards higher maturity levels.

## 4.4. Stimuli driving IS planning

In terms of the degree of change, this is a high degree of change is called strategic change. The brand will be digital transformation, and the marketing strategy is DTC. ERKE from the space of change is also in a high degree of rapid change. This time is the strategy of 'Attack.' This change is more focused on innovation than ordinary product upgrades, more strategic, and more competitive advantage, so that ERKE in the sports brand is more competitive, whether in terms of sales or service levels have been improved.

## 5. How it can effectively compete with LiNing's system

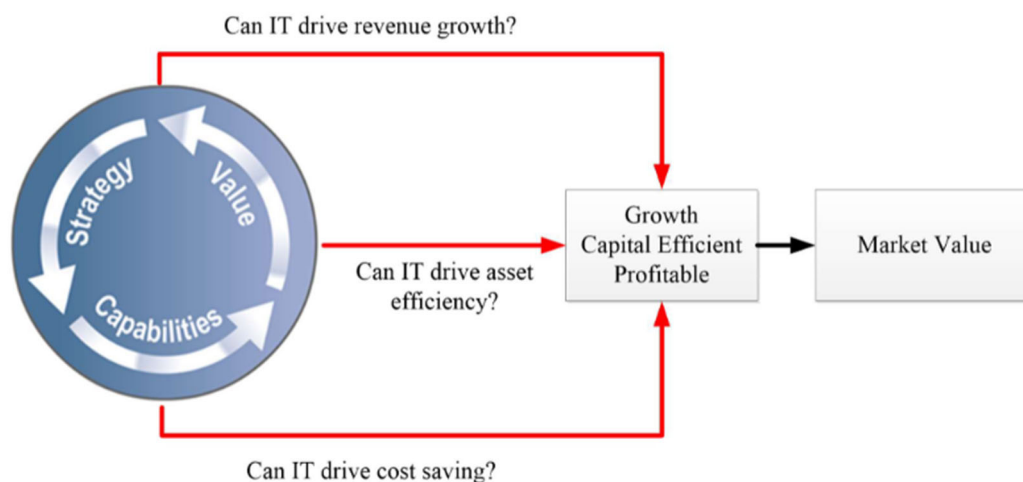


Figure 1. Competitive Factors Chart

### 5.1. Drive Cost Savings

Compared with Li Ning's single smart store model, ERKE built a smart store system and integrated offline stores into the online market, which failed to "grab food" online sales share. That solves the online sales inventory problem well, reducing the cost of warehousing inventory. At the same time,

ERKE obtains accurate user portraits and group labels in the system, which can use data value to understand customers better. Convert data, improve efficiency, facilitate customer and market segmentation, and reduce market research and marketing costs. For example, ERKE learned that some customer groups are susceptible to price through the portrait, but they don't pursue trendy styles. So, they subsidized the channel cost of factory shops and special sales to the product price and then accurately pushed it to the target customers, which can achieve high efficiency of destocking.

## **5.2. Drive Asset Efficiency**

With the help of the SAAS data-sharing model, ERKE has the potential to generate more data extension services. And can better adapt to the requirement of rapid iteration of technology and improve the efficiency of IT assets. This SAAS sharing model is different from Li Ning's privatization ERKE's investment in information systems, and ERKE can effectively reduce future use and maintenance costs.

## **5.3. Drive Revenue Growth**

Compared with Li Ning, ERKE was the earliest to realize the cooperation with Alipay offline payment. While creating offline smart stores, ERKE smart store strategic information system connects the store's most core information platform POS system with mobile Taobao. Consumers can pay quickly through mobile membership codes, bringing better customer service and shopping experience to customers. At the same time, customer and transaction information will be deposited in the brand data bank, enabling store users to be identified and reached twice. ERKE realized online drainage, breaking through the boundary between online and offline and adding "contacts" for communication with members. Each store is a platform that can double the drainage effect and significantly improve the marketing effect, realizing the increase in the number of members, the repeat purchase rate of members, the unit price of customers, the sales volume, and the market share. Through the cooperation with Alipay, ERKE can be upgraded in terms of innovation, sales, marketing, user experience, and other aspects, reconstructing people, goods, and markets, and opening up online and offline through the data revolution to realize transformation and surpass Li Ning.

## **6. Conclusion**

The rapid change in the external and internal environment requires ERKE to transform its traditional business model to DTC strategy. Therefore, studying the experience of LiNing, we suggest that the company can utilize the strategic information system in-store to capture the transaction information of customers. Besides, different from the Cloud computing system of Lining, the SIS of ERKE can share the offline's transaction data to the online platform so the company can also deliver the right products to the right customers via the Internet. So ERKE can leverage its strategic information system to gain competitive advantages.

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