

하이얼 세탁기의 중국 시장에서의 가치혁신 성공에 관한 사례 연구

A Successful Design Strategy of Haier Washing Machines in the Chinese Market

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요약

현재의 산업기술은 날이 갈수록 발달하고 있고, 따라서 기술은 더 이상 생산기업들 간의 유일한 경쟁 요소가 아니게 되었다. 본 논문은 하이얼 세탁기의 성공사례의 연구를 통해서 하이얼 세탁기의 디자인 전략의 구체적 방법을 찾아보았다. 이와 동시에 하이얼 세탁기와 지멘스, 리틀스완 세탁기의 4PS의 비교분석을 통해서, 하이얼의 디자인 전략에 있어서 경쟁 회사들과 어떠한 차이점이 있는지 연구하였다. 그렇게 함으로써 어떻게 기업의 디자인 전략을 체계적으로 분석하는가에 대한 방법 및 어떻게 성공적인 디자인 전략을 수립할 수 있는지에 대한 분석 프레임과 연구방법을 제공하고자 한다.

■ 중심어 : | 디자인 전략혁신 | 가치혁신 |

Abstract

according to rapid development in current industrial technologies, technology alone is no longer the only competitive factor among the manufacture companies. The value of innovation in product design has increased important attention to more consumers. This paper demonstrates the methodology of design strategy through the case studies of successful washing machine manufacturers on the China's Market. By the so called 4PS comparison of Haier washing machines with those of Siemens and Little Swan, this paper shows the difference of Haier's design strategy with other competitors, and offers a methodology of systematically analyzing strategic design and successfully develops a framework of design strategy.

■ keyword : | Design Strategy Innovation | Value Innovation |

1. INTRODUCTION

1.1 The necessity of research and goals

This paper studies the methodology of design strategy through the case study of the success of washing machine manufacturers on the Chinese

Market. By the so called 4PS(The Marketing Theory) comparison of Haier washing machines with those of Siemens and Little Swan, this paper shows the difference of Haier's design strategy with other competitors. Value-innovation oriented strategy has two major factors, one is cost-cutting off products,

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the other is differentiation of product design[1]. Design value innovation strategy not only contains related strategic choices and design resources control in the process of implementation, but also includes overall planning and deployment in design strategy. The consulted literature states, among various managerial strategies, that the core of value innovation strategy is to achieve cost-cutting and product differentiation design[2]. However, to implement value innovation, a company has to jump out of the traditional competitive model, rearrange strategic factors and complete effective and reasonable analysis of its blueprints. In other words, the purpose of this research is to offer a methodology of systematically analyzing design strategy and successfully developing a framework of design strategy through the study of Haier's success.

1.2 The content and method of research

This article analyzes the top three companies in China's washing machine market. It summarizes and analyzes the 4PS data of Haier in detail, then analyzes the price curve of value innovation in order to find Haier's strategic innovation methodology. Simultaneously, the article reveals the differentiations of Haier value innovation in the same field through the 4PS analysis in competition with Siemens, Little Swan and Haier. Specific methods in this study are the following:

1.2.1 Primary Research

By research of papers and books in value innovation and strategic design innovation, the points of view in this paper on value innovation and strategic design innovation are summarized.

1.2.2 Statistics through the Internet

Carry out online and offline research through

China's major websites and search engines, including China's top portals such as Chinese Electronic Net, ZOL, MSN, Mega upload, Xinhua, and China's provincial portals such as Phoenix, Shanghai East, Northeast News Net, and Sports Net. Collecting information which attracts the most attention of washing machine users. The respective data was used as reference for this article.

1.2.3 Comparative-inductive Method

Study the relevant literature about the value innovation design strategy and derives a successful experience of Haier Washing Machine's value innovation. Provide necessary reference in the differentiations of Haier value innovation in competition in the same field, by making a comparative analysis among the top 3 companies in China's washing machine market.

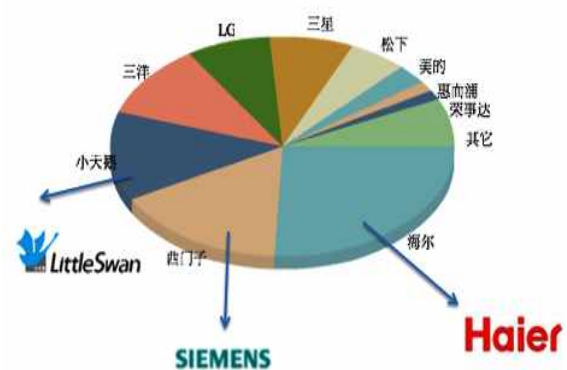


Figure 1. The market share diagram of China washing machine market in 2013

1.3 The value innovation strategies' comparison and analysis of Haier, Siemens and Little Swan

There are several reasons why we chose Haier, Siemens and Little Swan to make this comparison and analysis.

1) Haier, Siemens and Little Swan are the top 3

brands in the Chinese washing machine market. Haier occupies 40.2% of the market share, Siemens had 14.2% and Little Swan owned 11.4% in first half of 2013.

- 2) Haier, Siemens and Little Swan kept a stable trend in a one-year trend chart.
- 3) Haier had a 9.4% excess in market share than Siemens and Little Swan in first half of 2013.

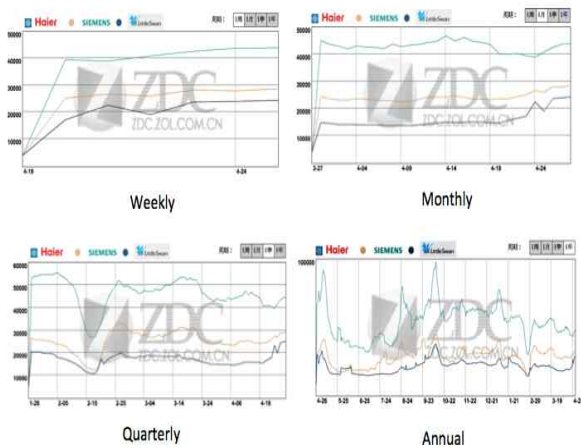


Figure 2. Haier, Siemens and Little Swan's trend chart in the first half of 2013

2. VALUE OF DESIGN MANAGEMENT IN PRODUCT INNOVATION DESIGN STRATEGY

2.1 Value innovation design strategy

The product is the carrier that presents the value innovation in design management, it is the lifeline of enterprise development. If the enterprise fails to provide the products the consumers want, or if the products lack creativity and competitiveness, enterprise strategic business objectives can only be idle talk. Therefore, the implementation of design strategy of product innovation is the core of the whole enterprise business activities[3].

Value innovation of products exists in the following ways: in terms of users, it is to get the customers'

recognition of the product value; in terms of developers, it is to successfully solve the problem of high costs, implement cost reduction, product differentiation and uniqueness. The value of product innovation is the intersection of those two factors. Value innovation design strategy creates a blue ocean in market space beyond the competitive range of ideas, develops new market demand, new market space and creates new space through value innovation.

2.2 The key to value innovation design strategy

The core problem of Value innovation design strategy is to create a differentiated value with a cost reduction at the same time. This methodology focuses on value innovation in design strategy innovation. As shown in [Figure 1], the value of innovation is the value to the product users.

Traditionally, the way to improve the use value of the product is value accumulation mainly by scale expansion, such as the products of one company are designed to provide customers with a convenient function, while products of another company in this area give customers more convenience, thus are ahead of its rivals. This kind of competition mode provides the value of the "quantity", but not in effect beyond the market. This value is not the value of innovation[4].

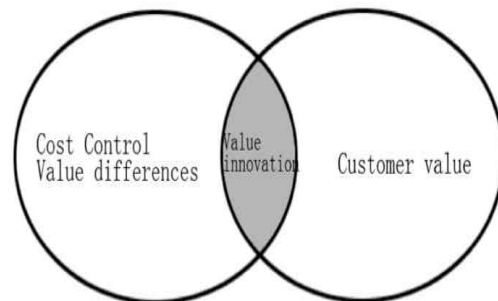


Figure 3. Keywords of value innovation

So, where is the way out for value innovation? How to produce value innovation? First of all, we have to distinguish "value innovation", "technological innovation" and "market domination". The traditional brand management aims to overtake the competitor in the same selling points which costs more than was needed by ones rivals, such as the purchase of a new production line yielding increasing costs in the design and management section etc[5]. The direct consequences are the increasing costs which will lower the profits and even become a vicious circle. On the contrary, the value of the product innovation will be produced only when we explore the value innovation design strategy which is an organic combination of the enterprise product innovation and performance, price and cost. This innovation value occurs when creating value for customers and reduce costs at the same time, which means to obtain synchronous improvement in enterprise value and customer value. This is also the key to value innovation design strategy[6]. Consequently, value innovation is not to compete with other companies in the market, but to develop new markets in consumer-centric product value innovation.

2.3 The difference between the value curve evaluation logic and traditional logic

The logic followed by the value curve evaluation method is strategic logic of value innovation, it's very different with the traditional strategic logic, the main difference presents in five basic aspects.

2.3.1 Industry envisage

Many companies thought that their enterprise condition is innate, but the logic of value innovation is not the case, no matter how other companies, the logic of value innovation is the pursuit of a whim and

customer perceived service quality produce a essential leap on some attribute.

2.3.2 Strategic focus

Many companies allowed their competitors to determine the customer perceived service quality parameters. Corporations conduct competitive analysis to maintain comparative advantage. Value innovators do not imitate their competitors. However, they can distinguish from all the factors of competition which can bring special factors of value based on the customer's attention[7].

2.3.3 The customer's requirements

Many companies look for growth through expansion or maintain their customers by providing niche services in the market segmentation, but value innovation logic is exactly the opposite, it seeks common features in which the customers concern, rather than focus on the differences between the customers.

2.3.4 Assets and abilities

Many companies evaluated business opportunities accord to their existing assets and abilities .They would ask what is the most suitable for us to do under the our existing condition?

2.3.5 The scope of business

Generally, each industry provided service to customer in a certain scope where the enterprises in the industry compete with each other and provide customers with higher perceived quality of service. But value innovators usually across these boundaries, what they considered is the whole plan to solve the problem[8]. What is the position of the services that our enterprise provided in the customer's entire solution chain , what compromise we forced the

customer to do in service delivery. Try to solve the main problems in customer perceived service quality through analyses and evaluations to the customer's whole solution chain, even if it is beyond our scope of business and brought us into a new industry, we do not accept the restriction which defines our industry to be what should do or not.

3. THE CASE ANALYSIS OF THE 4PS STRATEGY

3.1 4PS Analysis Approach

The marketer E. Jerome McCarthy proposed a four P classification in 1960, which has since been used by marketers throughout the world. It includes Product, Price, Place, Promotion, which all have the initial letter P.

Product: focus on development of functions and are first priority. Aim to offer unique product selling points

Price: develop an according to market strategy based on different market positioning and company branding strategies, focus on brand value

Place: companies do not face end customers directly but focus on business partners and channels which link companies and customers

Promotion: change companies value sales behavior to stimulate customers and boost consumption through short-term actions (advertising, buy one get one free, discount and marketing atmosphere etc.) and draw attention of customers from other brands or buy ahead.

3.2 4PS strategic layout analysis of Haier washing machines

The Haier group is one of the most valuable brands in China. Haier group possesses several product lines

which include refrigerator, washing machine, TV, water heater, PC, mobile phone and kitchen set. Haier's distinguished refrigerators and washing machines are the most famous among all these products. This article only put effort on the research about Haier washing machines' value innovation design strategy in China's washing machine market. We'll use the 4PS method to analyze this specific issue.

3.2.1 Product

The Haier Group carried out a market segmentation and developed multiple specific electric household appliances in order to satisfy different customers. Haier Washing Machine provided products with different function, appearance and size for different environment and consumer demands.



Figure 4. Haier "Margaret" washing machine

Haier provided the "Margaret" washing machine with washing, dewatering and drying function which is suitable to use in the rainy and damp area of southern China.



Figure 5. Haier "Explode" washing machine

Haier developed the new type "Explode" cleaning washing machine for the area of northeast China where a hard water problem is prevailing. It softened the water by the blast of the bubbles and increased the cleanliness by 20%.



Figure 6. Haier "Sweet potato" washing machine



Figure 7. Haier "Bellerophon" washing machine

Haier developed the "Sweet Potato" washing machine for the area of southwest China where rural

areas take a bigger proportion with a low economic level and unstable electric tension. The speciality of this washing machine is that it can not only wash laundry but also wash sweet potatoes, which are an essential part of southwest China's diet. This new kind of popular washing machines was so useful that almost every family has one. Another kind of washing machine, the "Bellerophon" is also designed for peasants in southwest China. Both of these two types of washing machines are sold at the price of some hundred Yuan only.



Figure 8. Haier "Coin-operated" washing machine

Haier furthermore developed "Coin-operated" washing machine for universities in China. There're so many students with limited living expenses who need a convenient way to wash clothes. Haier's "Coin-operated" washing machine not only simplified the operation but is also cheap to use.

3.2.2 Price

Haier Group adopted the following two pricing strategies.

- 1) product price equals the product value that customers can accept
- 2) customers care much more about product value and after-sale service than the actual product price

3.2.3 Place

Haier group adopted the following four kinds of distribution channel strategies.

- 1) Adopt a direct supply distribution system and establish a marketing network (Factories manage all marketing affairs independently. Supply products to retailers directly without a service wholesaler.)
- 2) Set up brand shops. (Establish Haier's own brand shops in all cities regardless of their size and importance with the same product quality, service and corporate image.)[14].
- 3) Design a specialized branch within the company for product storage and transportation.



Figure 9. Chinese cartoon "Haier Brothers"

3.2.4 promotion

Haier group implemented the following four kinds of promotion strategies[15].

- 1) Promotions on every Labor's Day, National Day, New Year's Day and Factory Celebration Day and other National Holidays
- 2) Customers can make payment via loan or monthly payment.
- 3) Customers can use old Haier products to deduct discounts on the price of the new product.
- 4) Haier produced a 212-episode cartoon starring the "Haier Brothers" to establish a positive

brand image, sponsored children's art troupes, built the Qingdao Hope Primary School and sponsored American NB basketball games.

3.3 4PS Strategic layout Analysis for the Siemens Washing Machine

Ernst Werner von Siemens is a Germany electrical engineer, entrepreneur and the inventor for electrical motor, generator, tramcars as well as compass telegraph. It is this famous person who founded the Siemens Cooperation in 1847. The main business focused on four areas: industry, energy, infrastructure and city. Siemens entered into China since 1872, competing for the washing machine market. Now, we apply 4PS technique to the Siemens Washing Machine for a detailed analysis.

3.3.1 Product

The main strategy of the Siemens Washing Machine is to compete through technology. The 3-D speed variability and energy saving series possesses level 1 washing ratio as well as optional choice between acceleration and energy saving. Their products are mainly concentrated on the higher level consumer groups in China.



Figure 10. Siemens Energy Saving Washing Machine

3.3.2 Price

Siemens washing machine implemented a Double Brand marketing strategy, since Siemens mainly focuses on advanced product material and leading automation as their product characteristics. Therefore, Siemens does not offer large discounts. In the current market, the minimal price for a Siemens Washing Machine is 1900 RMB, while the maximum is 16,000 RMB.

3.3.3 Place

Siemens applied simple distribution channels: capturing first level cities with high consuming ability and attaching importance to national interlock supermarkets for electric household appliances . The distribution channel can be described via the two approaches below:

- 1) Applying direct supply distribution approach and set up sale network by itself. (Operated by the manufacturer, supplying material to the retailer instead of intermediate carrier.)
- 2) Focusing on first level cities and national interlock electric household appliances supermarkets such as Suning and Gome. (Shown in the figure below.)

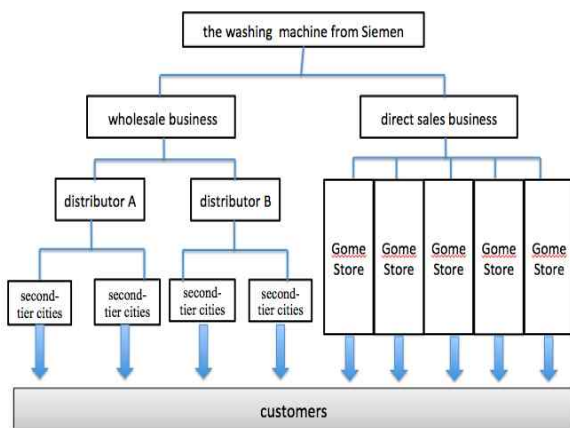


Figure 11. Siemens' sales structure chart

3.3.4 Promotion

The Siemens group used "word-of-mouth marketing design strategy" in the developing of its China washing machine market. "Word-of-mouth marketing design strategy" is a traditional marketing method. Siemens implemented its "word-of-mouth marketing design strategy" without media advertising. Siemens operates some minor discounting activity on National Holidays such as May 1st, October 1st, January 1st and so on[16].

3.4 4PS strategic layout analysis of Little Swan washing machine

Wuxi Little Swan Corp. was established in 1958. Little Swan mainly aims to the low consumption group market in China. We'll use the 4PS method to make specific analysis.

3.4.1 Product

Little Swan Washing Machine developed the "Water Magic Cube" technology to solve the problem with clothes that are easily entangled through the washing process. "Water Magic Cube" technology can effectively solve the problem and clean clothes basically by continuously adjusting the water flow and washing rhythm to create the "Water Magic Cube Smart Water Flow". This advanced function is achieved by a surfing pulsator, vacuum dewatering in the inner barrel and the Water Magic Cube Computer Chip. It has three kinds of water flows: stirring water flow for scattering clothes, surfing water flow for reducing entangling and waterfall spraying water flow for even washing[12].



Figure 12. The schematic diagram of Little Swan "Water Magic Cube" washing machine.



Figure 13. Little Swan "Water Magic Cube" washing machine.

3.4.2 Price

The Little Swan washing machine price is mainly a price determined by production costs. Cost-oriented pricing is a pricing method based on cost recovery. Little Swan is mainly aiming at the low consumption group market.

3.4.3 Place

Little Swan washing machine's distribution channel is similar to Siemens' products. It adopted a direct supply distribution system and established a marketing network. (Factories manage all marketing affairs independently. Supply of products to retailers is done directly without a service wholesaler.) Simultaneously, more efforts are put on sales in first

class cities and more attention is paid to home appliance chain groups like Suning and Gome.

3.4.4 Promotion

Little Swan washing machine has only two ways in promotion: Personnel promotion and Non-personnel promotion. It disseminates brand information and function information through newspapers, magazines, TV, outdoor display and network media. There will be discounts and sales promotion activities on May 1st, October 1st and January 1st every year as well as on factory celebration days along with other national holidays.

3.5 The design innovation strategies' comparison and analysis of Haier, Siemens and Little Swan

We have come to understand the methodology in value innovation strategies from the 4PS research of Haier washing machine's successful case. Haier created a distinguished value curve in the pursuing of value innovation as follows:

3.5.1 Product

Haier's most significant difference is that it carried out a subdivision in the target market and developed multiple specifications of electric household appliances in order to satisfy different customers. Haier Washing Machines provided products with different functions, appearance and size on the basis of different environment quality and consumer demand[10]. For example, Haier developed washing machine "Margaret" especially for weather of south China. This kind of washing machine used visible drum washing machine with a fashionable design and good toughness, not hard-wearing material. Also, Haier developed "Sweet Potato" and "Bellerophon" for a rural area of south western China. These two

washing machines used basic cost-down material with simple design and functions. Lower cost addressed low economic level issue in a rural area of south western China[11].

3.5.2 Price

The price of Haier products ranges between Siemens and Little Swan. To be more precise, Haier has the same high-end products as Siemens but at a lower price. Also, Haier has low-end products like Little Swan but at a higher price.

3.5.3 Place

Haier's distribution channel differs from that of Siemens and Little Swan in three aspects.

- 1) Establish a marketing network by itself.
- 2) Set up brand shops.
- 3) Design specialized branch companies or product storage and transportation[9].

3.5.4 Promotion

Haier has special promotions. Customers can trade old Haier washing machines for a certain price which can be used as price deduction for a new Haier product. This kind of promotion method builds customer loyalty for the brand and provides a barrier for customers to switch to other brands.

3.5.5 The strategic diagram of design innovation

This paper extracts several factors from the 4PS methodology: Price, Market positioning, Process Material, Intelligent, Place, Advertising, Additional Features and Promotion to draw a design strategy chart of Haier, Siemens and Little Swan to show the Haier value innovation differentiation.

as shown in [Figure 14], the horizontal axis represents design concerns, the design of similar

products and the enterprise investment factors; the vertical axis represents the related factors on the costs of high and low status. Drawing a strategic layout, there are several important factors that need to be clear. First, understanding the competition between similar products and industry elements, which is also the selling point of this product. Second, investigating an outline of the competitors' product design strategy, understand the key-point of rival product investment design strategy; Third, determining one's own enterprise product competition design strategy, namely what factors are the key content that the company will spend a lot of costs on product design and promotion on.

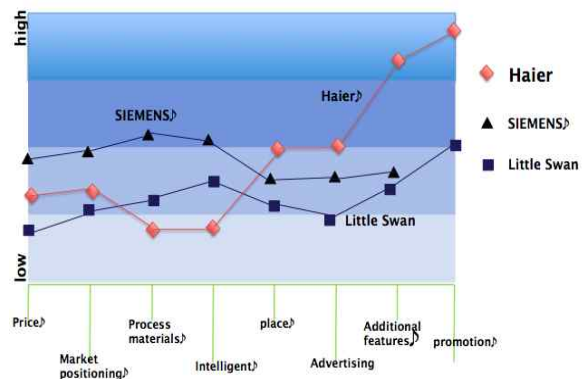


Figure 14. The strategic diagram of Haier's washing machine'

From the above strategic diagram of Haier's washing machine [Figure 14], we can find that Haier has great differentiations in all aspects of process materials, intelligent, additional features, and promotion. In process materials and intelligent, Haier is lower than Siemens and Little Swan, while in additional features and promotions, Haier is far higher than Siemens and Little Swan. Following we will further analysis the ERRC(ERRC: Eliminate, Reduce, Raise, Create, is one kind of analysis tool) method.

Eliminate ▶	Rosie ▶
High-Tech Materials The research and development for high smart chip	Non-traditional advertising method Characteristic of products in the area the way of promotion. ▶
Reduce ▶	Create ▶
cost reduction arts and crafts material	product positioning and segmentation impeller type washing machine Wash sweet potato washing machine Coin-operated washing machine. ▶

Figures 15. ERRC tables of Haier

From the Haier ERRC tables [Figure 15], we can reveal the secret of Haier Washing Machine’s success. Haier Washing Machine reduced costs by cut down high-tech constituents. Haier furthermore developed products with additional functions to meet the specific needs in target areas and carried out a new way in advertising. All these means successfully stimulated the consumers’ purchase desire and earned new market shares. Haier’s design strategy factor has a different value curve from that of Siemens and Little Swan. Therefore Haier is the number one in the Chinese washing machine market. It’s not only leading in product value innovation, but also in enterprise value.

Ranking	Brand	Weekly Top	Trend	Brand Share
Top 1	Haier 海尔	■	+4%	25.7%
Top 2	SIEMENS 西门子 西门子家电	■	+6%	16.3%
Top 3	Little Swan 小天鹅	■	+3%	13.1%
4	SANYO 三洋	■	+5%	10.9%
5	LG LG	■	-5%	7.8%
6	SAMSUNG 三星	■	+2%	7.8%
7	Panasonic 松下 Ideas for life	■	+7%	5.4%

Figure 16. The ranking list of the washing machine in the Chinese Market[13]

4. CONCLUSION AND PROPOSAL

This paper analyzed the characteristics of design strategy of Haier and its representative competitors Siemens and Little Swan by 4PS analysis, comparing their value innovation strategies drawing different design strategy factor distribution charts. From the strategy chart we can see that Siemens and Little Swan have similar charts, which means there is no big differentiation between these two brands. However Haier washing machine has a significantly different chart from Siemens and Little Swan, which means Haier succeeded through value innovation oriented design strategy innovation.

The successful value innovation of design strategy of Haier washing machine is: firstly, Haier cut down costs by slowing down parts of its intelligent technology and new material development. Secondly, Haier divided the Chinese Market into smaller segments and designed products to meet those segments natural condition and customer requirements. Thirdly, Haier built up a humanized brand image by promotion with vivid cartoons, which strengthened the link with customers and increased customers’ trust and desire to buy. Value innovation oriented design strategy is implemented based on cutting costs and increase of differentiation.

Thus, Haier successfully jumped out of the traditional competition model to re-arrange design strategy factors and plan rational strategy. This paper is not only offers a solution for companies on how to systematically analyze competitor’s design strategy but also how to work out corresponding value innovation plan of design strategy. The result of the research is an evaluation of the characteristics of Haier Washing Machine’s design strategy differentiation. This kind of research provides a valuable case study for other companies and design

proprietors on how to work out design strategy through value innovation.

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