

# Humanization Design of South Korean Product and Its Approach

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**Abstract**—Korean products are close to people life. People are not only in using a function, but also feeling a kind of emotion and enjoying a joy, life design, design living. Through some phenomenon, this paper analyses the design approach on Korean products and concludes the main reason why Korean commodities can be so fashionable throughout Asia and even the world by going through Korean products' design from four aspects: humanization design; cultural design; the hi-tech; man-machine design and emotional design, at the same time, it expounds the secret of South Korea's design's leading position from its scientific and technological content; cultural connotation, and brand construction. Owing to its many advantages, exquisite design, reasonable man-machine, South Korean product brings people a sense of emotion, harmonization and enjoyment while using the products.

**Index Terms**—humanization design, Korean culture, the hi-tech, emotional design

## I. INTRODUCTION

Korea, who entirely relies on imports for major resources, is particularly aware of the importance of tourism and trying to boost tourism at international level, hosting World Cup, Expo, the Winter Olympics, and the Asian Games. To keep pace with the current situation, design industry has also moved into the new stream. It realized the important role of itself and adopted design policies and techniques from advanced countries [1].

Thanks to the development of new science and technology in this era, communication between countries in culture and economy is closer than ever before. For example, in film, clothing and catering industry, "Korean Wave", a phenomenon of following Korean fashion, has been gradually formed and swept the whole Asia. South Korea, regarded as one of the "Four Tigers of Asia", boasts uniqueness in every aspect, cultural industry in particular.

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Owing to its many advantages, exquisite design, South Korean commodity brings people a sense of emotion and enjoyment while using the products. Human design of product is a kind of immaterial design. In spite of the fact that it has never been elaborated by anybody, human design has been widely used in the domain of industrial design in practice. It is a method that makes product humanized. The study of human design of product is in order to find out the efficacious way to make product have personality, and thus satisfy the spiritual requirement of human. All these have certain directive significance in the implementation of the human design of product [2].

The impact of the Korean cultures created by human society on design is being represented in products designs vividly. A good product design, humanistic design, can guide people's living and bring new trends and design style, and even to promote the change of design ideas. The people here are all those in connection with the design actions and the design achievements, including designers, users, viewers, etc., while the products are the design achievements. Based on product designing, its harmonization is not simply creations, but to create the basic nature of time, nation and culture, implicating rich feelings of people, and with powerful functionality, aesthetics, economy and harmonious integrity.

What on earth is charm of Korean commodity? On what accounts can it attract people of different cultural backgrounds and adored by young customers at the same time? The reasons of these problems have long been explored by Asian countries. Against the background of closer communication between countries in culture and economy in the 21 century, how can South Korean goods continue to dominate the market in Asian and the world as a whole? Through some superficial phenomenon, this paper concludes the following reasons of Korean commodity humanistic products design concept, namely, the product's harmonious design, lovely cultural design and appeal of the design.

## II. MATERIALS AND METHODS

Different countries have somewhat different definitions of cultural property.

Varied words and expressions are used to define different types of cultural, showing the nature of each individual type of cultural and products. Cultural products should be produced by new ways. For example, produced products using various stories are passed down from the past until now, and the history value make commercialization. Also, it needs to improve the quality of cultural products through planned and systematic management. It can give trust for consumers to cultural products. Because of many foreigners are buying cultural products [3].

#### A. Influence of Korean Culture on its Product Design

##### a. Influence of Korean culture on its product design

It may also be named as cultural design of the Korean products. Technical design of a product is named as materialized product design, while industrial design is human-centered product design, in other words, cultural design of a product. Global insight, combined with flexibility allows us to effectively balance the business drivers and bridge cultural design preferences. National tradition is the origin of cultural connotation in design.

Countries of Asian share a common ancestor and some interlinks in culture. South Korea, having excellent cultural tradition and rich cultural heritage, is one of the representatives of Asia's oriental civilization. This culture directly reflects in the guileless and sedate design of South Korea products, integrating the product design with Korean culture. This is why the Korean culture is exquisite. Subjecting to positive infection in this powerful culture atmosphere, South Korea's people have implemented the essence of their native culture into design works by paying attention to sedate, generous, clean and neat design.

In the highly competitive age of globalization, culture is considered the most advanced and competitive factor for bringing harmony to the society, economy and life. Unique cultures are the most important asset to urban development, and the core resource for gaining a competitive advantage. Culture not only represents various cultural products, but also a way of life, expression, thinking and learning. Culture has become the core strategy of area development, and is developing closer and closer relationships with the economy, society, technologies and education. Korean culture planning should pay close attention to both the culture of design and product of cultures, ponder upon the relationship between culture and the economy, and be concerned about how goods and localities can become part of a cultural experience.

As Korea became industrialized recently, Korea has a very special culture and the culture that Korea boasts is vast and full of age-old wisdom with its own unique way. So Koreans need to develop an advanced strategy for cultural products and seek ways to spread universal cultural values. One way the type of culture is cultural goods. Even though they can improve the image of the Korea, they are not developed properly spirit is necessary to make its own cultural products for having Korean history [3].

South Korea's long history and vast land created a colorful Korean culture. Regional differences and multi-ethnic cultural background made traditional cultures and arts have more variations. Facing traditional cultures and arts, Korean designers found a wide scope for inspirations and space for free adaptations. It gives valuable resources for developing Korean styles and personalized designs and is an inexhaustible culture wealth for designers. There are various forms of traditional culture applications on design, such as fashion design, culture design and product design.

The traditional design elements that still live in Korea as traditional elements are the advantage of being passed. The traditional beauty is part of the foreigners are the most preferred and also these are used for local residents. These cultural products are used to take advantage of the locals yielded continue the vein of Korea's culture can be bought by foreigners, as a gift propagation yielded a culture of Korea can be an opportunity to inform. It can be used as the identity of the country. It makes up a large part of Korea's identity, and is representative of Korea as a whole. Traditional elements of a present day way of expressing cultural products are a practical goal. Of cultural products and building brand value through effective Korea because of the size of Korea brand-building is important for the development of cultural products [3].

##### b. Brand construction

Every commodity has its own unique brand of charisma, so, what should your brand be? People buy goods, not so much whether something is usable or not, but how easy it is to understand, engage and have a dialogue with a brand. Designers often discuss the possibility of competitors on the capacity of strategy [4]. Korea can establish a cultural identity developing of cultural products and develop a unique Korean brand.

Korean products have its own unique cultural characteristics, an advantage which is obvious around the world. South Korea's brands have successfully invaded in the Europe and America market, and competed with some developed countries' brand names, such as Samsung and LG. Their goods have advantages with deep cultural background and strong ethnic characteristics, this is why Korean products could enter into the global market early.

The main trend for modern economic development is by brand competition. Leading brands without culture accumulation is a brand without life. Even if it is far from being a brand name, successful culture brands always have their own unique traits and differences, no matter whether they are quality culture industries or other successful brands of other industries. More than often, Korean quality traditional culture resource is a special and unique culture, having great cultural assets and value. Its uniqueness has played a great role in promoting the development of the regional quality traditional culture resources, and needs to increase its efficiency [5].

For successful marketing on one character, design is very important. But it is also necessary to have a total branding strategy to ensure the success. In order to become part of the public consciousness, the character

must be spread throughout the markets of many fields of business with integrative content which is coherent throughout planning, marketing and promotion [6].

The direct method is exploring the unique culture of Korean. Nevertheless, with the enterprises trend to be global, developing design will be the best strategy to show self-culture. Whether in the national culture, the corporate culture, the consumption market or the life style, design has been regarded as a powerful and competitive weapon [7]. For example, expecting that design can provide innovative values throughout the product design and development processes to strength the product's marketability, Samsung, Hyundai, LG and other well-known international companies all have considered practical terms of products. Hence, design is assuredly an important weapon in the face of global competition [8].

### B. The Application of Computer Technique

In the present information age, the application of computer technology has penetrated into every field. Enterprises will develop new products, add new features to a product, or create new versions or extensions of a product. For example, application of 3D body scanning technology to human measurement for clothing fit (refer with: Figure 1). The purpose of this study is to seek possible implementations of both of the technologies together in research areas related to apparel design and product development [9]. Along with computer technology application day by day broad, the application software complex degree increasingly is also high. Using AUV (Autonomous Underwater Vehicle) scenario, it is expensive and time-consuming to do experimental work to predict the behaviour of machines with changing all variables by theoretic calculation and experiments [10]. The AUV with fins can do gyratory motion by vertical fins and do diving and rising motion by horizontal fins [11], the modeling and motion control of the AUV with fins have been solved well by computer technique. The application of computer technology should brought profound impact on Creative means and method.

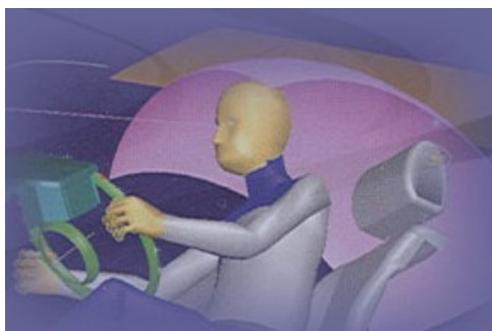


Figure 1. The application of computer technique

### C. Harmony Design of Product

#### a. Humanization design of South Korean product

Nowadays humanization design is increasingly valued and the design advocating being human-centered and caring for human is becoming the mainstream. The humanization design can be convenient for satisfying

practical demand of users, Korean enterprise could promote the moral content of the product through the basic idea as the “humanization design”, the obligation of the production as well as the production sales and marketing. Humanization design of South Korean product mainly includes follow aspects: Natural environment, Humanistic environment, Regional cultures, People’s demands and Factors of Designers.

#### b. Harmony design of South Korean product

Nature has provided a constant inspiration to designing. In humans back to nature has become louder and louder circumstances, how to convert the natural features into the design language, give the products fresh smart flavor and create viable product morphology in the new era and under the conditions of new technological level, is what modern Korean design is facing mission [12]. Such Korean ideologies of creation art are “harmony between man and nature”.

Product design will be close contact with the culture once shifting to the spiritual. Korean traditional culture was gradually established and formed from the theories of harmony with nature, masculine and feminine elements five lines, this philosophy will provide active inspiration and reference for the idea expression of modern product design.

The Korean traditional material making thought put an emphasis on harmony. It brings a great enlightenment to modern product design. Modern product design should pursuit the harmonization between product and product, product and people, product and environment, and achieve the total harmony of product, people and environment in the final. Harmony design of South Korean product mainly includes three aspects:

*Harmony between man and product:* Product design not only available, which is useful functionality, but also applicable for the use of performance comfort, the atmosphere pleasant and caring about the special groups, such as the children, elderly, disabled, sick, pregnant women, left-handed people. Thus, in the design requires the integration of processing materials, technology, and other factors, according to ergonomic principles, products and people's physical features and psychological characteristics of coordination, the key design in the course easy to get, well placed, easy to use and the use of the psychological experience, to make the product scale appropriate thickness appropriate, material suitability, the mechanism of natural and so on.

*Harmony between product and product:* The first is single product itself of parts, components that constitute the system of coordination, including shape, size and connectivity between each other, which also contains the line style between parts, proportions and color matching, etc. As shown in Figure 2 the efficient operation and utilization of products lie in the balanced system constituted by products’ parts and components.

To do what is best, the design in dealing with products and products elements of the mutual relations, so that the

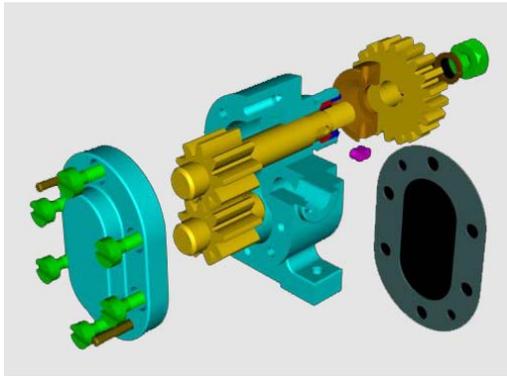


Figure 2. Parts and components

various opposing factors obtained in the dynamic balance between development and will have differences, and even contradictory nature of complementary factors fusion, constructed as an organic, harmonization of the whole people is to maximize the capabilities to meet the dual needs and emotions. Followed by the single relationship between products and other products constitute coordination. Such as the design of thermos bottle, capacity and should be boiled kettle into it than the whole relationship between the capacity to play their effectiveness. Well designed roads and bridges are required to make the high-speed effectiveness of cars shown. Figure 3 (refer with: Figure 3) is a typical Korean design, being amusing and rational coordinate, it puts notes of paper and cards holder between two beer bellies.

*Coordination between product and environment:* Environment here refers to the subject or to accept the design aesthetic of the main consumer, the consumer activity or activities in which the aesthetic space, including natural and social environment. Product should change with changes in the environment.



Figure 3. Typical Korean design

#### D. Emotional Design

Developed countries have promoted a concept of emotional design in this field already. They found that people around the world seem to share and emotional design in life, emotional design has become unimportant aspect in industrial design. In the concept of experiencing economical and emotional design, consumption is not just a desire for materials, but dissatisfaction with experience and a longing for emotion.

As later generations, from emotional needs of the consumer, we should focus on experiencing connotation of national culture and traditional cultures, put modern

passion in it, and absorb goodness from foreign to create modern emotion design.

Emotional design of emotional factors in today's product design is more and more important. Emotional design is become a trend of product design. The way to blend more emotional factor in product design was discussed through analysis of the emotional needs of human being [13].

Not surprisingly, the success of a product in the marketplace may be determined by its aesthetic appeal, the pleasure it creates, and the satisfaction it brings to the customer. Emotions influence how a customer interacts with the product. In the interaction, feelings accompany thinking. Customer needs and measured emotions are input early in the design process. The goal is to achieve a pleasurable and satisfying product.

Emotional design does not only bring brand-new visual experience to audiences but also results in audiences' psychological states, value orientation, aesthetic consciousness and space-time concepts etc. different from the previous ones [14]. A new type of virtual aesthetic experience also appears along with it consequently.

##### a. Lovely fashion of product design

South Korea product has taken full advantage of influence from lovely culture. In today's society, fashion has a great influence on product design. People's social psychological characteristics change along with the social life conditions, resulting in some impacts in traditional thoughts. Lovely fashion conforms to this condition. Lovely fashion is popularly called "corde culture" and "chao culture" nowadays. "Corde" or "chao", English meaning is "lovely". Now, the meaning of "corde" or "chao" has been extended to pure, pure brilliant, cute, and recently been enlarged unlimitedly to sweet, immature and cartoon. "Corde" and "chao" are a new attitude of life. It is fun, young, energetic, lovely, beautiful, happy and sunshine. Esteemed for "Lovely fashion", Korean products have entered the Asian market, and a unique consumer groups have been cultivated, forming a unique "corde generation" or "chao generation". This generation has no manacle, only opening thoughts and actions.

##### b. The appeal of product design

As is known to all, shape, color, texture and function are the most basic elements to constitute a product. These elements are like language of product, which enables products to communicate with users through this special language, thus forming a complete product image in users' mind. In the process of communication between people and products, often the most direct form is through vision and touch, therefore, products appeal language received by people can also be divided into touch appeal and visual appeal. The so-called visual appeal is an appeal language intending to show the essence of products through visual elements such as sculpting, color and material. Tactile interest is an appeal language intending to perform the features of products through tactile elements such as product material and using methods.

*Lovely form of product:* It can be said that, the usability design and the emotional design mutually

affects in the product design, indispensable and constitute the modern product design connotation together. Product exists in specific forms and the process of product design can also be regarded as a process of form creation. Form design of appeal products often reshows some natural forms through techniques and methods such as personification, exaggeration, permutation and combination, thus giving out a new psychological feeling. As to the form design of appeal product, it usually has a general design characteristic.

*Cartoon form:* At present, there are a lot of products with cartoon characteristics image, they are unique and eye-catching. This fashion of design first appeared in the design of daily products and small adorning articles then it gradually extended to all kinds of electronic products and durable electrical appliances. Cartoon product design is a complex cartoon styles, it is a kind of special design method with comic curve, abrupt fantasy and publicize appeal life. It brings the enjoyment life attitude of people into product forming style. With cartoon programs and comic art coming deeper into consumer culture life, design gimmick of using cartoon image have become a new trend of product development.

*Fit form:* A conjunction form is what we often said the positive shape and the negative shape, people normally used common elements to connect two or more forms. They are both independent and correlated, presenting people with a lot of fun. Taiji diagram and childhood toy jigsaw puzzles are both representatives of fit forms that we are familiar with (refer with: Figure 4).



Figure 4. Taiji diagram

Looking carefully, we can find that the use of correspondence of form is common in all kinds of product design. For example, the seasonings container in the figure shows two lovely cartoons embracing each other, waking endless dreams of people. At this time, this product is not only a flavoring container on the table, it is also an artwork that all people will fancy (refer with: Figure 5).



Figure 5. Seasonings container

*E. Vivid Collocation of Color*

Color design is indispensable part in the process of product development, with color design being more

important in interesting product designs. People express different emotions with different colors and scientific designs of colors also make our lives more perfect and comfortable.

Carolyn Bloomer, a visual art psychologist of American thought that: “Color can evoke people’s different kinds of emotions and feelings, and even influence our normal physiological feelings”. Indeed, reasonable and ingenious match color for products could stimulate consumers to buy, therefore making the product a all-time-winner in the market (refer with: Figure 6).



Figure 6. Color design

*F. Reasonable Man-machine*

As an intentional practice of human, design and creation are symbols of human’s subjectivity, initiative and innovativeness. In the 21 century based on knowledge and sensitivity, design plays an important role in generating competitiveness. It is focused on developing products, tools, and artificial items which sometimes cause directive and significant impact on environment [15].

Ergonomics, a great subject, is designed to serve people. The Ergonomics design is a very important subject on industrial design research, following the whole evolution process of design. Track and optimize ergonomics are in new product project. That is people-centered including traditional design of the ergonomics with the physiological and physical scale the sensory comfort but also the spiritual needs. We can all call to mind hundreds of products we experience daily that do not meet with the minimum criteria in terms of ergonomics, sustainability, or even production rationality, however, products of South Korea pleasurable function design can be strengthen with ergonomics in order to satisfy the users' demands better and support farther evolvements of product design.

Design aspects specified by the Korean industrial designer may include the overall form of the object, the location of details with respect to one another, colors, textures, sounds, and ergonomics, Korean designer considers the following two aspects:

*a. Physical ergonomics*

The study of physical ergonomics is in relation to one’s working environment. It is concerned with human anatomy, human metrology, physiology and physical activity. Related topics include the work posture, manual transmission, repetitive movement, sports activities, site

layout, lighting equipment, heat and acoustics environment, etc.

#### b. *Psychic ergonomics*

The research of psychological ergonomics is in relation to one's psychological environment. It includes understanding, cognition, memory, reasoning and emotion. The relevant topics include communication, spiritual workload, cognition, policy, skilled performance and human-computer interaction, human reliability, working pressure, training, cultural differences, attitude, fun and exciting, etc (refer with: Figure 7).



Figure 7. Man-machine design

#### G. *Rational Application of Materials*

Besides configuration and color, material is also an essential element for performing visual appeal language of product. But being different from the former two, interest language of product material largely comes from tactile experience of people. The blend of vision and touch gives people colorful emotional experience in the process of using.

### III. RESULTS

That existing technology and design are re-developed, which you can call figuratively "stand on the shoulders of giants." It is recognized that technological innovation is the spear and intellectual property protection is the shield, Korean is a country with a long history, rich and outstanding cultural heritage, have created a splendid material and spiritual civilization.

Human design of product is a kind of immaterial design. Product design must be able to satisfy at that time the people to the life new demand, must use at that time the newest science and technology achievement, used the newest tool, the newest material, the newest technology, the newest theory could transform as the new physical product, adapted with at that time people's material life level.

Korean products have high content in science and technology, an advantage which is obvious around the world. Their goods have advantages with deep cultural background, strong ethnic characteristics, high contents of science and technology, and with exquisite comprehensive man-machine consideration. This is why Korean products could enter into the global market early, because they are people-oriented.

### IV. CONCLUSIONS

Binding the principle of high-tech and high-quality, South Korean people carefully choose high quality parts to guarantee 100% qualified products by intensifying careful design, careful work and strict inspection. The humanization design can be convenient for satisfying practical demand of users. Outstanding quality of product is the foundation of smooth sale, so Korean commodities are high quality product models favored by the majority of consumers.

National tradition is the origin of cultural connotation in design. Having excellent cultural tradition and rich cultural heritage, South Korea's people have implemented the essence of their native culture into design works. This culture directly reflects in the guileless and sedate design of South Korea's products, integrating the product design with Korean culture.

The design advocating being human-centered, Korean products are close to people life. People are not only in using a function, but also feeling a kind of emotion, enjoying a joy. Life design, design living, emotional design, design emotion, cultural design, design cultural, design fashion, fashion design, innovative design, the design of innovation, brand design, design brand, all these features complement with each other. The advantages of South Korean products are worth learning for every country.

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