

National Design Competitiveness Report 2008

Dec.26.2008



Korea ranked 8th in design competitiveness evaluation

KIDP comes up with NDCP, the inaugural evaluation model for design competitiveness by country

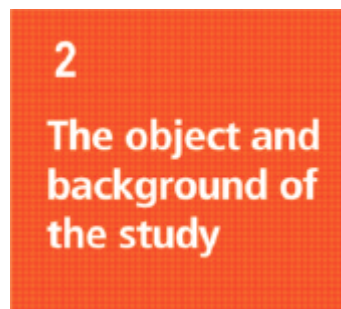
The Korean Institute of Design Promotion (KIDP) has developed the first-ever framework to evaluate countries design competitiveness. The National Design Competitiveness Power (NDCP) revealed its first results for the year 2008. Seventeen major countries were assessed under the heading The Report on National Design Competitiveness 2008 by KIDP and Dr. Chung Jai-hak of Sogang University. This study, which sampled 80 average people, 30 designers and 20 managers in charge of design at design-related firms for each country targeted, appraised design competitiveness through the NDCP three-dimensional comparative analysis in the public-, industrial- and civilian- design sectors. The NDCP study was intended to determine where Korea design industry stands now and to help devise a more effective and organized national-level design policy. It is widely seen that the year- long study led to a comprehensive model measuring each country's design prowess via in- depth research and analysis, and proposed a brand-new methodology, a major improvement over the previous one aimed only at corporations. It further suggests that Korea is positioning itself as one of the leading countries to evaluate design competitiveness and provide detailed information on design on a global level by announcing the new program and its estimates. The Report on National Design Competitiveness 2008 found that Italy topped the list, while France and the United States were ranked second and third, respectively. Korea and Denmark shared eighth place, and Finland came in 10th. China, Singapore and India were ranked 13th, 15th and 17th, respectively. Specifically, France, Italy and the United States were ranked high in the public- design sector, while the top-rankers of industrial design were the U.S., Germany and Italy. For the civilian-design sector, Italy, France and Japan formed a high-ranking group. As for Korea, it was ranked first in a design- competitiveness evaluation from the standpoint of human resources, though it left much to be desired in the categories of achievement, environment and investment. Overall, Italy was the best-rounded leader among

the 17 countries in the ranking of NDCP index, while developing economies including India and Brazil lagged far behind the top-ranking countries. In this report, design- competitiveness rankings and an outline of the NDCP model from the study will be introduced.

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Contents

1. The object of the NDCP study, background and timetable
2. Design-competitiveness evaluation model by country
3. The results of the evaluation
4. Detailed sector analysis



Object

- Devising a model to evaluate national-level design competitiveness
- Despite the importance of design, few studies of design competitiveness have been performed around the world.
- Figuring out where the nation's design industry stands now
- Finding ways to enhance the competitiveness of design by comparing Korea design industry and that of other countries and analyzing the strong/weak points of Korea
- Laying the groundwork for becoming a leading country in the design sector
- This study is expected not just to contribute to the global design industry but to raise the profile of Korea's design industry by proposing a standard for design industry evaluation.

Background

- There has never been an appropriate model to evaluate the nation design-promotion policy, which started in 1970
- That makes it harder for the policymakers to set a direction in design-related policy.
- Analyzing the status quo of the nation design industry by sector in comparison with others
- Establishing a tailored policy to each sector as well as pursuing efficiency
- Creating an environment where the KDIP could grow to a leading design institution by drawing attention from the global design industry
- Design competitiveness evaluations released by the Designium at Helsinki University and the New Zealand Institute of Economic Research (NZIER) were not sophisticated enough to measure comprehensive competitiveness. Both institutions have similar estimation models - and worse, they are limited to corporations. Unfortunately, there has never been a useful indicator for design.

Time Table

• **August 2007:** Embarking on development of a nation-level design-competitiveness evaluation model
October 2007: Devising a basic framework (professors at Sogang University and professionals from the design community joined the study)
December 2007: Itemizing the evaluation
March 2008: A draft model was made.
June 2008: Performing pilot studies on the major four countries, including Britain
August 2008: Optimizing the model by improving what to evaluate and how to evaluate it
September 2008: Launching design-competitiveness evaluation for 17 countries
December 2008: Announcing the first-ever evaluation model through in-depth analysis and its results

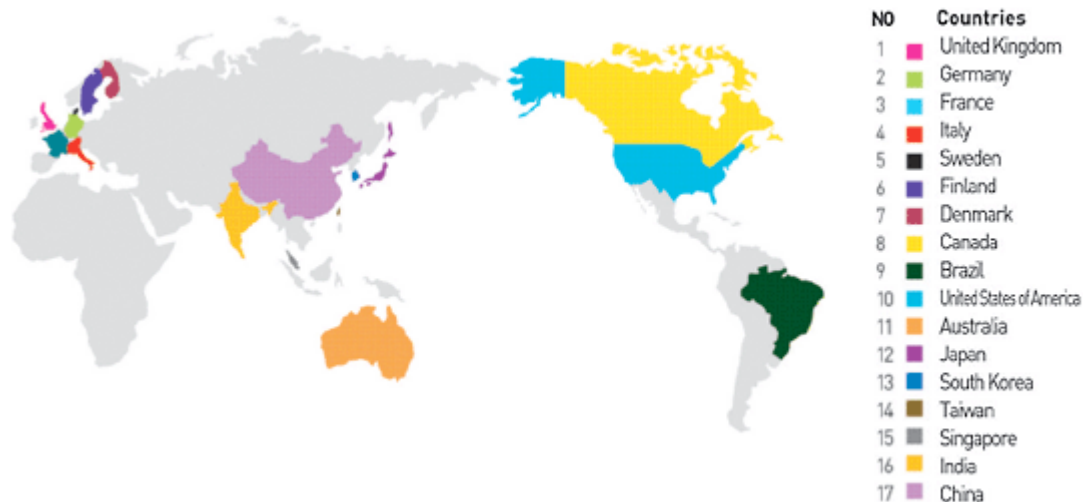
Field Survey Overview

• An online survey of designers, average consumers and officials at design firms was conducted over a two-week span.

The method of the survey	online survey
The subjects of the survey	designers, consumers and officials in charge of design at firms from 17 countries
The regions of the survey	3 Western European nations, 3 Northern European nations, 3 American nations, Australia and 6 Asian nations
Sampling	30 designers, 20 officials in charge of design at firms and 80 consumers
The period of the survey	October to November 2008

Countries Surveyed

This survey targeted 17 countries which are interested in design promotion. Many of them are European countries, whereas relatively few developing countries were included.



Evaluation criteria

- Design-competitiveness evaluation depends on how the concept of competitiveness is defined, but no appropriate definition has been proposed. In general, competitiveness refers to an ability to gain an edge over other competitors who vie for the same object. In this respect, when quantifying a nation's competitiveness, it would be fitting that the competitiveness of every player in the design sector who has a different goal should be factored into an index. When creating a design-competitiveness index, it is important to fully take into account a nation's willingness to promote its design industry as well as ensuring objectivity. That's why this study has garnered a collective wisdom from the Ministry of Knowledge Economy, the KIDP and the design community in order to select variables.

The Components of a Nation Design Competitiveness

- The "collective" design competitiveness of a nation is in effect determined by design competitiveness of its sub-units: public facilities, industry/corporation and the people. With this in mind, we set three sub-units to measure a nation's design competitiveness as below:

- ① Public goods level (design policy)
- ② Design industry level (design industry)
- ③ The people/consumers level (design culture)

- For each of the sub-units listed above, we evaluated competitiveness in these three aspects: ·Performance·Investment/Environment ·Human Resources

The characteristics and usefulness of the National Design Competitiveness Power model

How does the NDCP model set itself apart from previous models?

- There has been no noticeable effort to measure a nation-level design competitiveness over the past years. Therefore, we can hardly find any sort of model that is suitable to the evaluation. To be sure, some related studies had been carried out occasionally. The methodologies of evaluation, however, invariably remained a popularity contest and the criteria were stereotypical and randomly arranged. Consequently, though the existing studies often drew a conclusion like "country A is better than country B in design competitiveness," they failed to pinpoint where and how A is better than B on the basis of systematic analysis. On the other hand, this study employed a multi-dimensional analysis approach under which we can understand design competitiveness through the three sub-unit perspectives - say, public goods, industry and the people. This approach allows a more in-depth analysis in such a way that it looks into what each unit has achieved, the competence of each unit's human resources and the conditions of each unit's investment/environment. Through this approach, researchers are able to grasp what sort of aspect - among the categories of performance, human resources and investment/environment - determines each nation's competitiveness effectively, helping diagnose the current problems and explore ways to improve them. All in all, the raison d'être of this NDCP model is that it is a framework to figure out design competitiveness by country comprehensively and systematically; the model can not only understand characteristics in each nation's design industry but also provide diagnostic information.

Determining how to give weight to variables of the NDCP model

- An estimation of a national design competitiveness should include competitiveness of three sub-players - namely, government, business and the general public. But the trouble is that each player has different goals and methods. That means we ought to understand exactly how much each player ultimately contributes to design competitiveness of a nation. The significance of evaluation categories to measure each player's design competitiveness also should be weighed against each other. To do this, we decided to collect the opinions of design experts around the world.

- To ensure the representativeness and credibility of the NDCP index, we have measured the relative importance of variables for design-competitiveness evaluation by questioning

designers and officials in charge of design at firms from 17 countries on this issue.

- Since the first-phase survey found that both comparative and ranking methods have yielded the same results for the relative importance of variables, we chose to compare the rankings of evaluation categories that appear to easily elicit useful information from respondents, by significance. On this basis, we calculated weights.

Assessing a national design competitiveness via the NDCP matrix

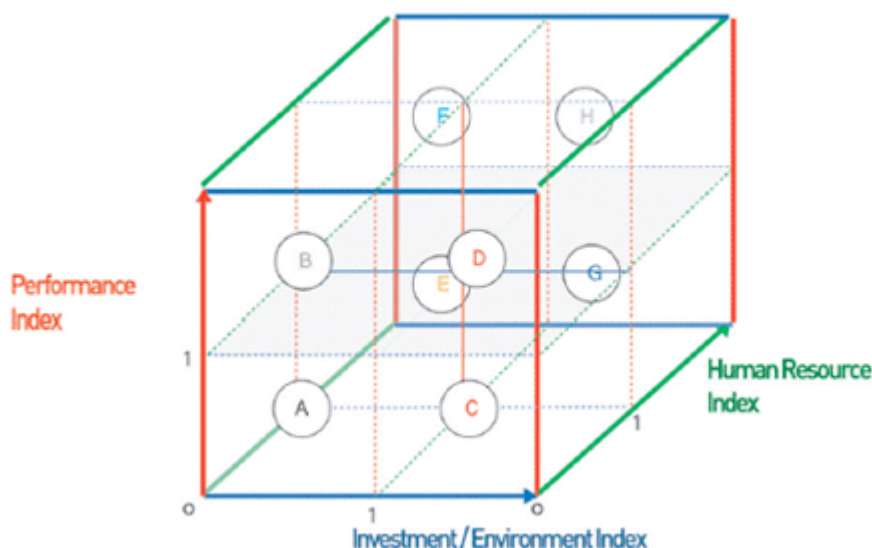
How to assess design competitiveness by country

"We will size up design competitiveness by country through three evaluation axes. Locating each nation on a three-dimensional map, we are able to carry out a comparative analysis of a nation's design level as a whole and even figure out its strong/weak points by categories."

- Three-dimensional model to evaluate design competitiveness (NDCP matrix)
- Design competitiveness from the performance-oriented perspective (PP index)
- Design competitiveness from the investment/environment perspective (ID index)
- Design competitiveness from the human resources perspective (MP index)

A: Black Zone: a country that is desperately in need of innovation; with poor competitiveness in all aspects, it needs a complete overhaul. **B: Gray Zone:** a country that is now competitive but likely to decline in the years to come; despite good performance in design, it will probably see its competitiveness weaken down the road. **C: Pink Zone:** a country where all but environment is in poor condition; while it is actively investing in design promotion, it needs talented people. **D: Crimson Zone:** a country whose environmental conditions are good; nevertheless, it needs more talented people. **E: Yellow Zone:** a country that is heavily dependent on its talented people; while it depends heavily on talented designers, it is in need of government support. **F: White Zone:** a country that has plenty of talented people; despite poor design conditions, it is very competitive on the backs of its abundant talented people. **G: Blue Zone:** a country that is now incompetent but has potential; while it has good environment and talented people, it needs greater efficiency in a policy-making level. **H: Sky Zone:** a country whose design competence is best; it is an undoubted design powerhouse that is better than all other countries in every aspect.

Three dimensional model to evaluate design competitiveness(NDPC Matrix)



The results of design competitiveness by country

13

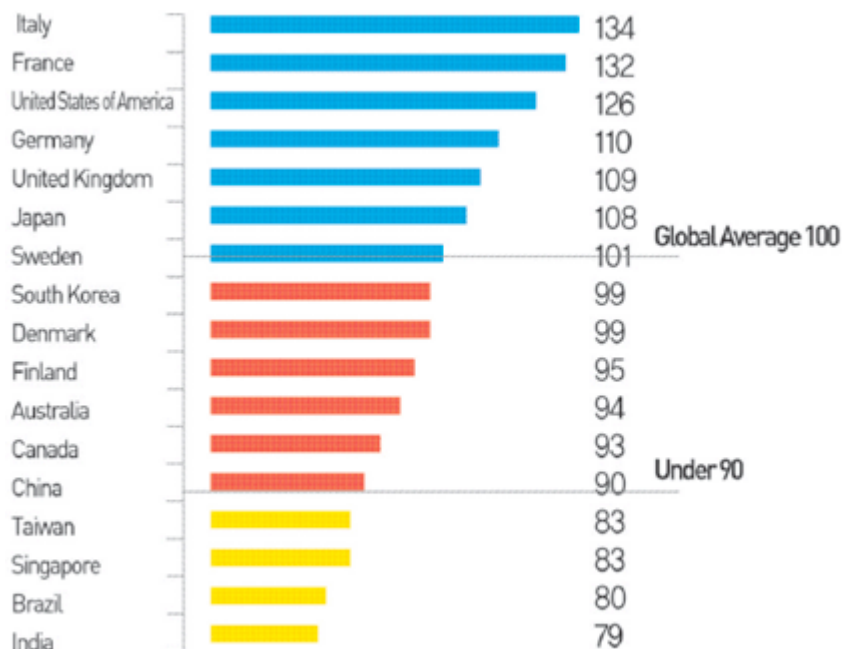
A comprehensive evaluation

- We evaluated the level of a nation's design in all aspects from public goods and industry to the general public/consumers. Since the NDCP model evaluated design of a country comprehensively in political, industrial and cultural dimensions, its evaluation could be inconsistent with other results determined by existing models that focus mainly on the ability of corporations.

The status of design competitiveness by country based on the NDCP Index

Some countries, including India and Brazil, turned out to lag behind high-ranking countries.

The status of design competitiveness by country based on the NDCP Index



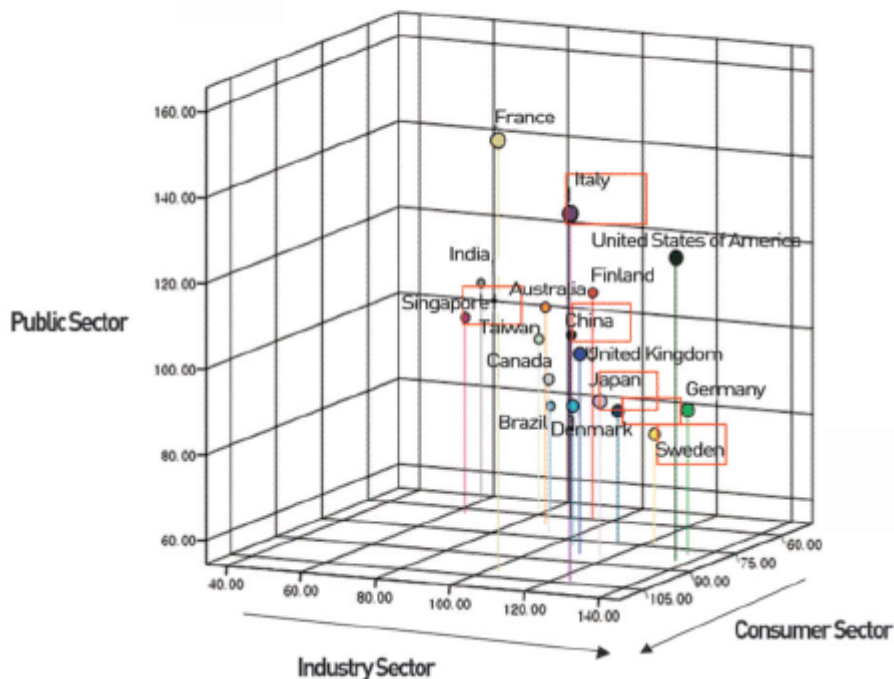
NDCP index (with 100 as the world average)

Evaluations by detailed categories

- From the perspectives of public goods, industry and the general public/consumers, some advanced countries dominated in the ranking of design competitiveness by country, indicating a high correlation between a nation's competitiveness and design competitiveness. France, Italy and the United States were ranked high in the public-design sector, while the top-rankers of industrial design were the U.S., Germany and Italy. For the people/consumption sector, Italy, France and Japan formed a high-ranking group.
- From the perspectives of performance, traditional design powerhouses were highly ranked, while Asian countries were impressive from the human resources perspective and Northern European countries whose governments are keen on the issue of design promotion were remarkable from the investment/environment perspective. Korea was ranked first in a design-competitiveness evaluation from the standpoint of human resources, though it left much to be desired in the achievement, environment and investment categories

Design competitiveness by country in the public, industry and people sectors

Three-dimensional analysis of design competitiveness by country



"Italy is a well-rounded design powerhouse."

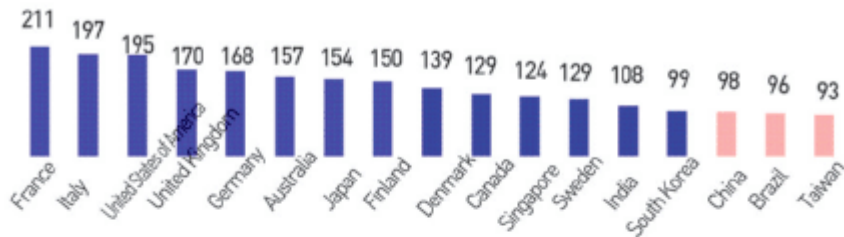
"Both Korea and Japan are competent in the industrial design area."

The ranking of design competitiveness:

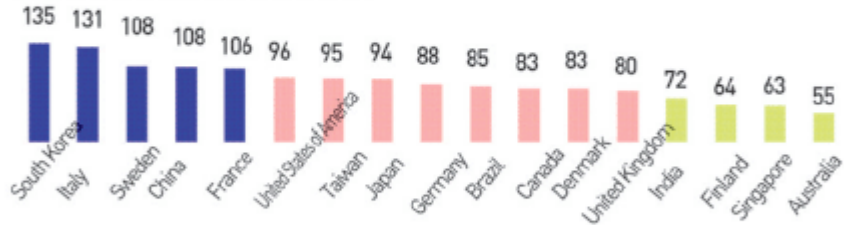
- Italy is the most competitive country in the design area. Its design competitiveness is well balanced across the board but especially great in public design.
- Korea is ranked between developed and developing countries, but its competitiveness in public design falls far behind developed countries. Overall, Korea's design competitiveness is roughly equal to that of Sweden.
- As for Singapore, its design competitiveness is remarkably lower than other countries. Though its public design development has begun to take off thanks to the recent boom in tourism, Singapore has long way to go in the rest of the design fields.

Design competitiveness by country in the public, industry and people sectors

performance aspects



human resources aspects

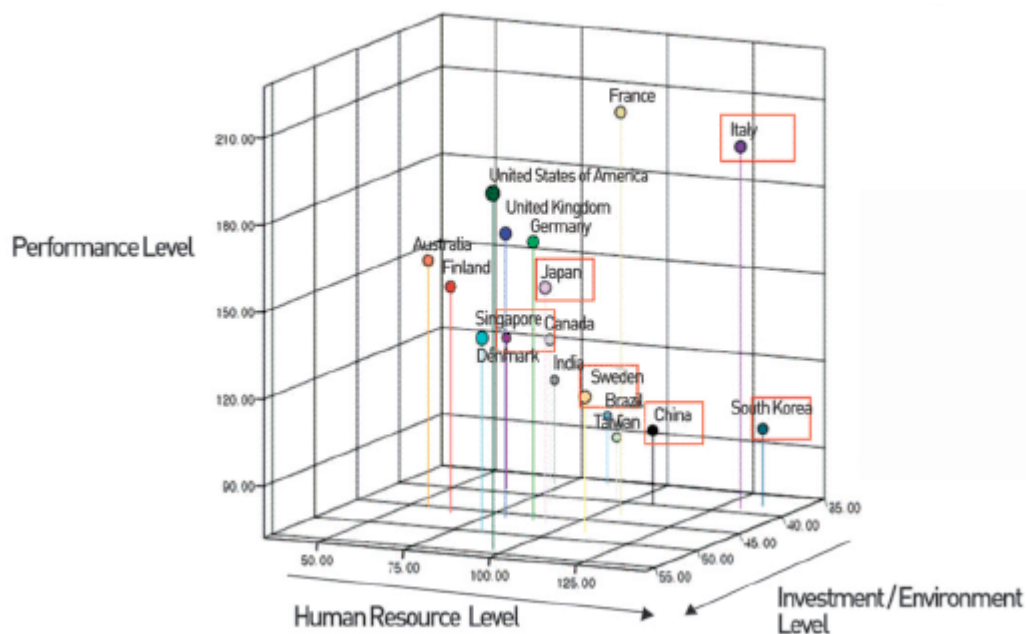


investment/environment aspects



Design Competitiveness by country in performance, human resources and investment/environment aspects

Design competitiveness index in performance



"Italy is particularly advanced in performance."

"Korea is very competitive in human resources."

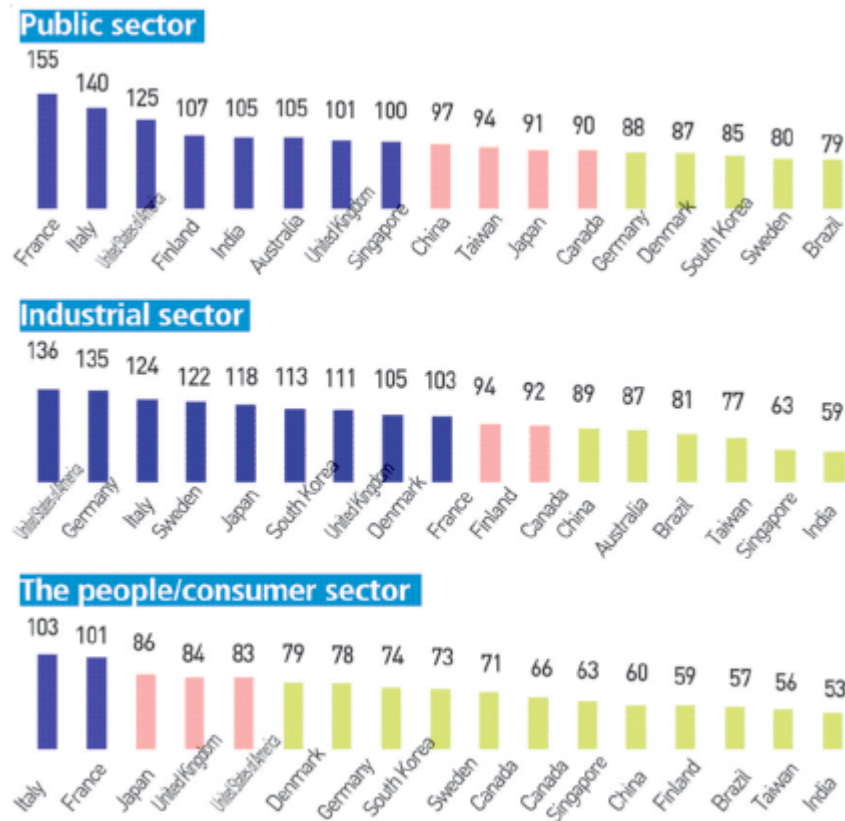
* In general, most of countries were not impressive in investment/environment.

* Korea has very competitive human resources, but is less competitive in performance and investment/environment.

* In human resources competitiveness, developing countries are better than developed countries with the exception of Italy.

* Singapore needs to develop its design competitiveness in human resources and investment/environment.

Design competitiveness in performance, human resources and investment/environment aspects



Detailed analysis results

19

1. Public-sector evaluation

Design policy competitiveness: France (first); Italy (second); the United States (third); Finland (fourth); Australia (fifth) Korea was ranked 15th.

<Performance aspect>

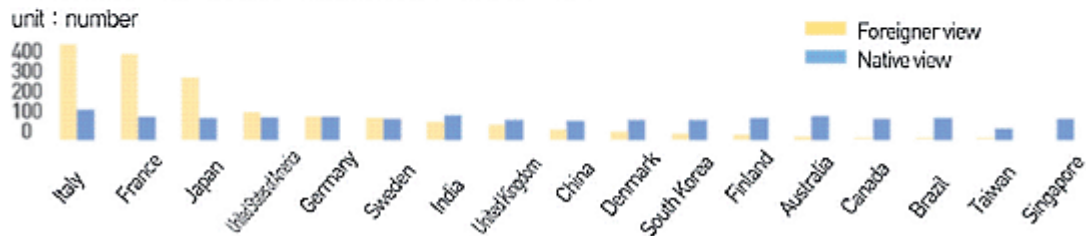
- People from 17 countries were asked about their public design level but in general their responses were little different. - According to the survey, many respondents thought cities in Italy and France were beautiful but few of them nominated Asian cities including those in Korea, Taiwan and China as being beautiful

What do you think is most beautiful city in the world?

"what do 1,440 respondents from 17 countries think is the most beautiful city in the world?"



A country which has plenty of beautiful cities

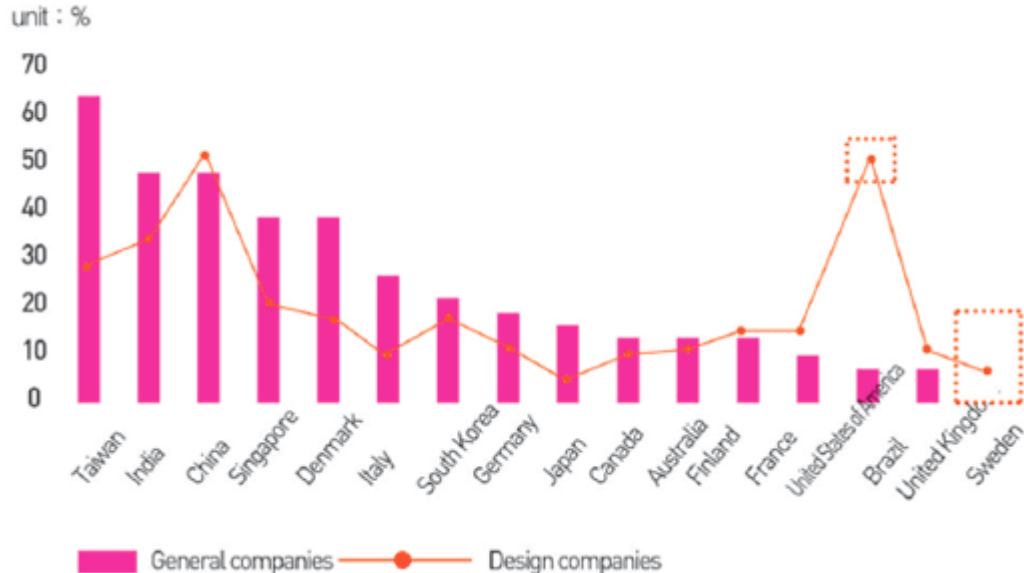


<Human resources aspect>

- Chinese and Taiwanese firms are highly dependent on their governments. In Sweden, name recognition of public-design institutions was low.
- People in most countries are satisfied with their public-education centers at an average level in a quantitative evaluation. But the satisfaction felt is relatively low in Taiwan, Japan and Brazil.

Public recognition on design-related institutions "How many people know about the existence of public-design institutions?" While people in Taiwan, India and China are well aware of public-design institutions, few designers and corporations in Sweden know the existence of such institutions.

Recognition on design-related institutions



- Public awareness of design institutions acts as a rule of thumb in the understanding of each country design industry protection and support. And all of the 17 countries surveyed have both government and private design-related institutions.
- In Taiwan and China, above-average design general companies know public design institutions. Contrary to this, most of general companies do not know the existence of such institutions and worse, less than 10% of design firms know them. This suggests that Sweden's state-level design support is seriously insufficient.
- In the U.S., design firms are well aware of public-design institutions, though the recognition

level among general companies is low, which means the U.S. government is thought to intensively back the design industry.

· As for Korea, public awareness of the KIDP was lower than expected. There needs to be more aggressive promotion and support policy to raise the awareness.

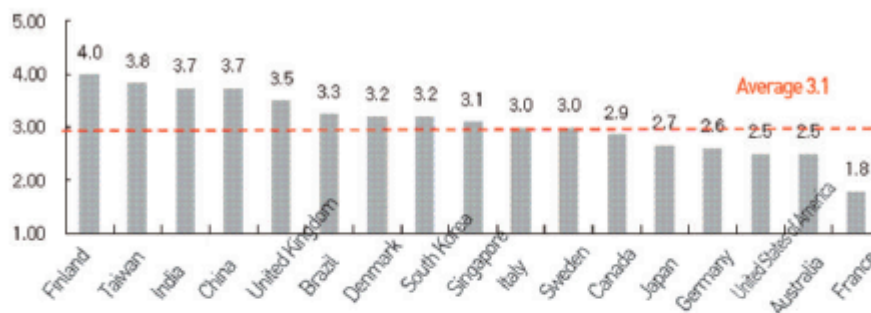
Investment/Environment aspect>

· In Asian countries such as Taiwan, China and Japan, governments are aggressively providing promotion and support for design. In the U.S. and Australia, however, the well-established public-design environment allows little room for government spending.

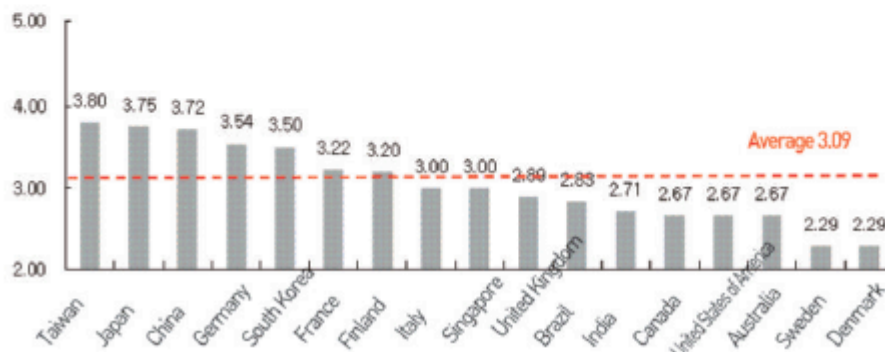
The level of government-driven design promotion

"Do governments spare no effort for design promotion?" While firms in Finland and Taiwan felt satisfied with government support for design, their counterparts in the U.S. and Australia did not

The satisfaction of general companies with government's design-related support



The satisfaction of design firms with government's design-related support



· The estimates indicate the level of satisfaction with regard to government's design support. In this calculation, only firms and designers who received government support were considered.

· In the cases of France and Germany, both of which are leading design powers, designers are thought to be treated well though they are dissatisfied with government support.

· Overall, Asian countries such as Taiwan, China and Japan were generous when it came to government-level design support.

2. Industry Sector Evaluation

The USA (1st), Germany (2nd), Italy (3rd), Sweden (4th), Japan (5th) - Korea is ranked 6th.

<Performance aspect>

· Korean firm's design-related sales are lower than those of other countries. - General companies in the U.S. posted the highest design-related sales, and their counterparts in Asian countries brought in meager sales. (Korea and India were ranked 16th and 17th, respectively.) - Japanese design firms pulled in the highest sales while their counterparts'

sales in Brazil were rather low. (Korea was ranked ninth.)

- The level of product design: Korea and Finland were ranked highest (mobile phone); Italy (fashion garment); Denmark and Italy (furniture); Korea and Japan (electronics); Italy and Finland (kitchen utensils)
- In globalization, general/design companies in Singapore and India have a large number of overseas branches, while Swedish and British design firms have plenty of overseas branches.

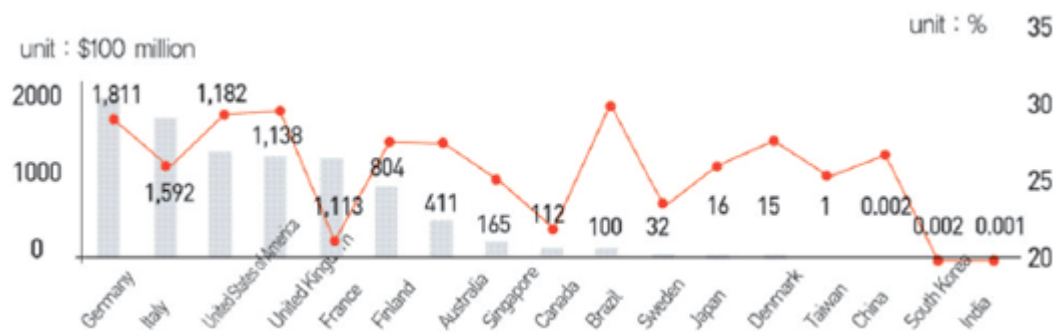
In overseas design outsourcing (design export), Italy, China and India were the main players. China and India were thought to enjoy affordable price for design development. The great deal number of overseas branches owned by Singaporean and Indian firms could be explained by their relatively fluent English.

* While Korea lagged behind in globalization, it held more talented designers than other countries.

The outcome of design firms: general companies design-related sales and their contribution to the sales

How much do countries generate in design-related sales, an indicator of a nation's outcome in design?

The U.S.: General companies' design-related sales were high. Asian countries: Design-related sales were low. Britain and Sweden: Design made a big contribution to sales.



- Bar graph represents each country's design-related sales (unit=US\$100 million), while line graph represents design contribution to sales (%).
- While design-related sales of European countries such as Germany and Italy were high, those of Asian countries such as India, Korea and China were notably low. That highlighted a significant gap in the design industry between European and Asian countries.
- In design contribution to sales, Japan was ranked first. This indicates the competitiveness of the Japanese design industry itself.
- Korea's general companies were low in both design-related sales and design contribution to sales, indicating they are less competitive in these design areas.

Which country is most impressive in product design?

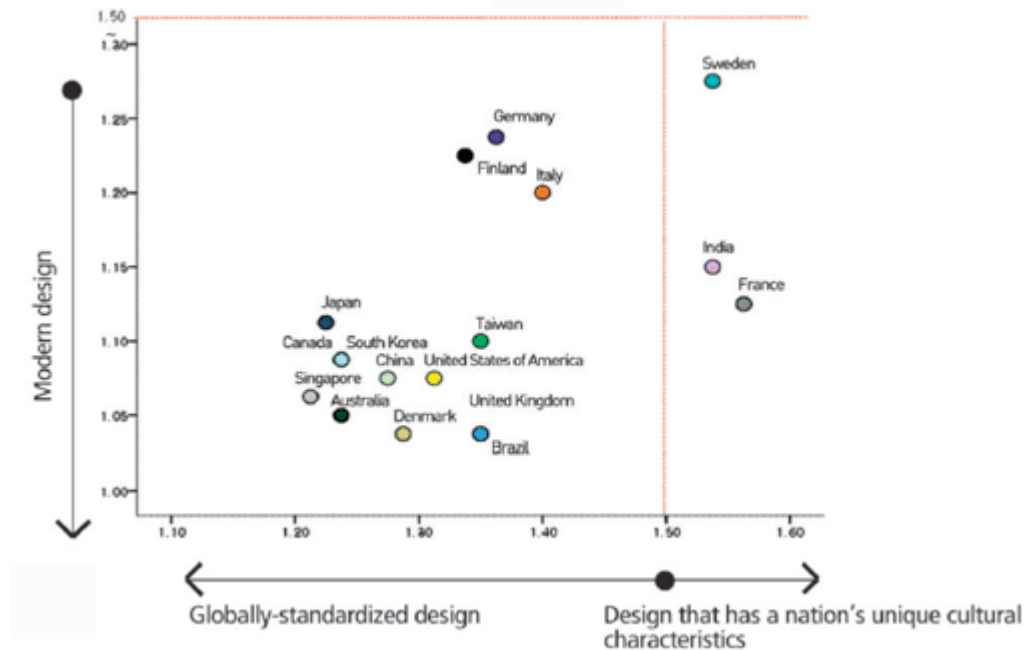
"Which firm is most impressive in product design, including mobile phones, fashion garments, furniture and kitchen utensils"

The most competitive firm by product design category[



What type of product design do consumers in 17 countries favor?

Most of them preferred a modern, globally standardized design. Asian consumers were particularly attracted by the global design trend. As for France, India and Sweden, consumers favored a design style that is reflective of their unique cultural characteristics.



<Human resources aspect>

Designers in Korea and Sweden were rated highest, while the U.S's designer level was lowest.

* Korean designers were rated high in both quantity and quality level, but few Korean firms had in-house education centers. -The number of in-house design education centers was highest in Brazil and China.

* In Korea, there were more in-house education centers in general companies than in design firms.

The number of designers (quantitative level)

"How many designers are working at each firm?"

"While Korea and Sweden have plenty of designers, the number of designers in the U.S. was significantly low."

The proportion of designers at general companies



The proportion of designers at design companies



· The figures represent the ratio of designers to total number of employees in each firm, hinting the amount of government spending poured into design industry. · For general companies, Sweden and Korea were ranked first and second, respectively, while Korea was ranked first and followed by Denmark (second) and Sweden (third) for design firms. · The U.S. has fewest designers in both general companies and design firms. · The Korean industry appears to spare no support for design, given its high rankings in both surveys.

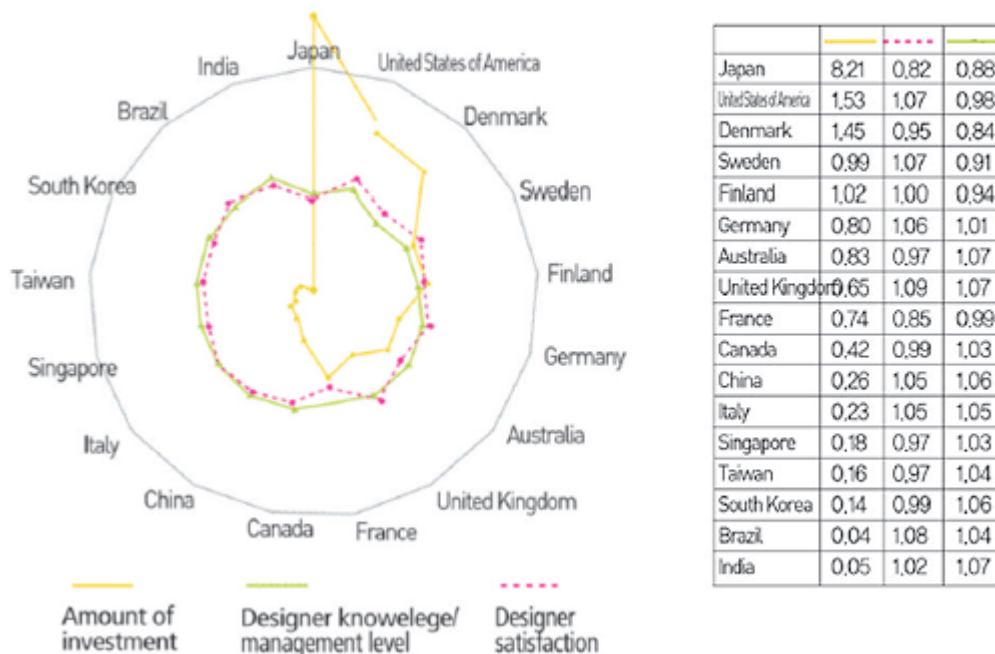
<Investment/environment>

• By total amount of money spent in the design sector, the Japanese design industry was ranked first, while European firms were highly ranked when it came to the investment-to-sales ratio. Asian firms lagged behind in this evaluation, however.

* Korean firms spent less money on design, along with Brazilian and Indian firms. (Korean was ranked 15th)

• Designers' satisfaction at companies and their knowledge/technology management level were generally flat in most countries.

Comparative analysis of investment environment in the industrial design sector



"In Japan where the amount of corporate investment in design was largest, designers' satisfaction and knowledge management level was generally even"

Besides Japan whose design-related corporate investment was highest, the USA and Denmark spent large amount of money in design. Korean firms' design-related investment was as low as that of Brazil and India. Overall, designers' knowledge/technology management level was generally flat throughout the 17 countries surveyed.

3. Consumer Sector Evaluation

Italy (1st), France (2nd), Japan (3rd), Britain (4th), the USA (5th) Korea was ranked 8th.

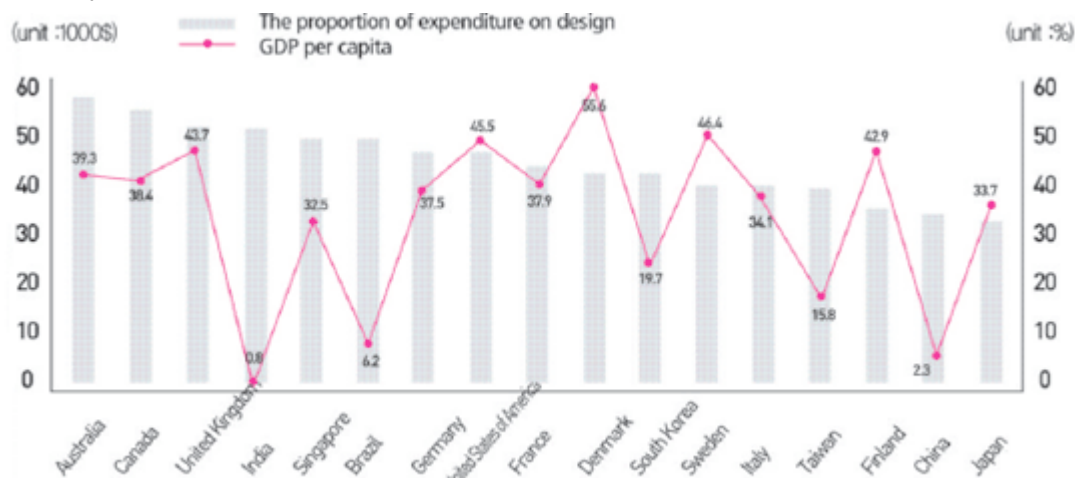
<Performance aspect>

Design-related consumption by Australians as a proportion of GDP was highest among the 17 countries assessed. By contrast, the Japanese figure was low - influenced by that country's frugality and already - high GDP. - The total expenditure by people on design was highest in Britain and the U.S., while those of Korea, China and India were low, indicating lack of public awareness of design.

The volume of design-related consumption

"How much do consumers spend on design?"

Design-related consumption in proportion to GDP: Australia was ranked first, while Japan and China spent least.



· The Danish spent less money on design, though their per-capita GDP is the highest among the 17 countries · But countries such as Korea, Taiwan, China, Brazil and India, which have relatively less per-capita GDP than others, showed a high level of design-related spending. In particular, India? expenditure on design is very high despite having the lowest GDP on the list.

<Human resources aspect>

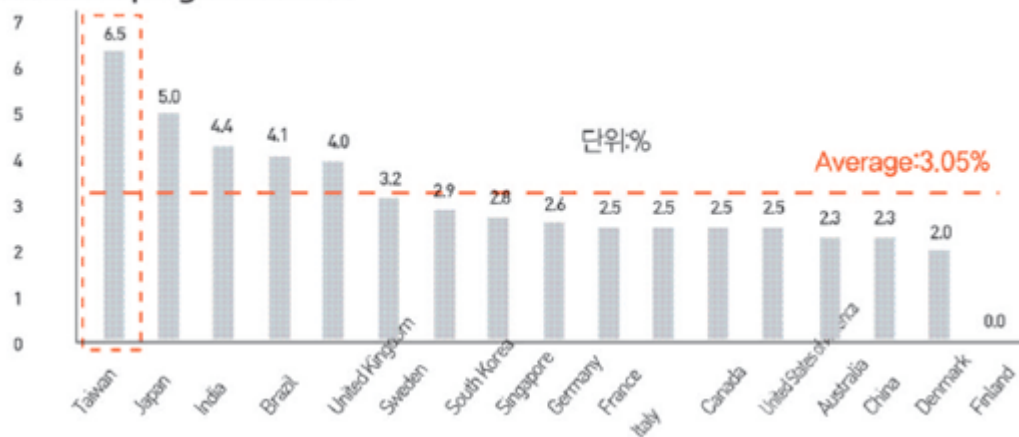
- India, which has recently been keen on the issue of design, provided more public education programs on design than any other country.
- * But Korea failed to offer enough professional design-education programs to the general public. - People in the U.S. and Australia were least happy with the quality of public education on design. But the reason seemed to be explained by their higher expectation.
- Consumers in Asian countries placed more value on design when purchasing a product than did consumers in other countries.
- * Korean consumers were very sensitive to design.

The opportunity of public education on design (quantitative aspect)

"How often do consumers take part in public education programs on design?"

In India, where public awareness of design has been raised, a sizable improvement in the quality of design education has been made. Taiwan has also provided a lot of education programs. As for Korea, opportunities for professional education were not adequate.

The average enrollment of participants in design/art education program in 2007



Investment/environment aspect

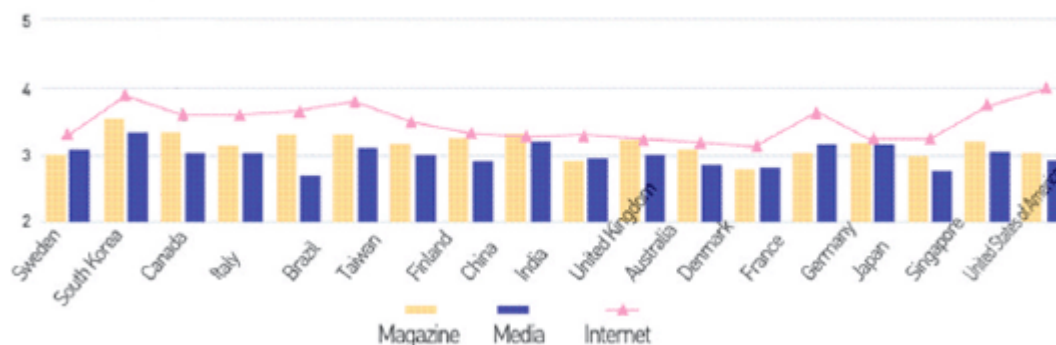
- The ease of getting access to design-related information and time spent on design activities showed little difference in evaluation among the 17 countries.
- * Canada and Australia spent more time on design than the others.

The ease of gaining design-related information collected (the usefulness of the media)

"How much information on design do consumers find via the media?"

The Internet is rising as the main channel to gain access to information.

(unit : 5 points)



- We surveyed consumers in 17 countries via a five-point Likert Scale as to how much information they collect through media like magazines and the Internet.
- The results showed that the use of the Internet was higher than any other media in all 17 countries.
- This indicates that traditional media is giving way to the Internet as a main channel through which consumers get design-related information.

Reference

- The New Zealand Institute of Economic Research (NZIER) announced a study of design competitiveness by country for the first time in 2002, but the study is no longer updated.
- Since 2005, the Designium, a design research center at Helsinki University, has carried out its design-competitiveness survey by country, which adopted an approach to that of the NZIER for every 2~3 years. In this survey released in 2008, Korea was ranked ninth for the year 2007.

Detailed information on "The report on national design competitiveness 2008" will be posted at KIDP's homepage www.designdb.com (Korean) / global.designdb.com (English).