KOREA DESIGN STATISTICAL DATA 2020

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BASED ON 2019 DATA

Ministry of Trade, Industry and Energy

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1970-2020

For the user

- This report contains the results of the “2020 Design Industry Statistical Survey”.
- The baseline for this survey is January 1, 2019 to December 31, 2019.
- Sampling frame is a sample survey of the companies that fall under the design industry classification of the 2017 National Survey.
- The industrial scale presented in this study is a result of parameter estimation.
- All figures in the statistics table are rounded up, so the sum of the details and the sum may not match.
- The sum of percentages of duplicate response items in the statistics table included in the report exceeds 100.0%.
- The sign used in the statistics table is as follows: [0], [0.0]: less than unit
- If the contents of this report are to be reprinted or reversed, it should be written as "reprinted or reversed" on page ○ 2020 Industrial Design Report.

CONTENTS

CONTENTS

2020 KOREA DESIGN STATISTICAL DATA

PART I

General Outline

2020 KOREA DESIGN STATISTICAL DATA

01

Outline of Survey

2020 KOREA DESIGN STATISTICAL DATA

01 Survey Design

1) Purpose of Survey

- The purpose of this survey is to build objective and reliable data that can serve as a basis for evaluation of the current status of the design industry, thereby responding to the demands of the users of the statistics, and to use the data as basic reference materials in the development of design policies and strategies by government, industries and academic circles.

2) Basis of Survey

- Clause 3, Article 20, Enforcement Decree of the Industrial Design Promotion Act (Compilation and management of industrial design statistics)
- Official statistics according to Article 18 of the Statistics Act (No. 115026)

3) History of Survey

- 1997 : Design Census conducted, The 1st Design Industry Statistical Survey conducted
- 2002 : The 2nd Design Census conducted
- 2005 : 2005 Design Industry Status Survey conducted,
  Survey conducted biennially after being renamed
- 2007 : 2007 Industrial Design Statistical Survey conducted,
  Title changed, Officially approved by Statistics Korea
- 2009 : 2009 Industrial Design Statistical Survey conducted
- 2011 : 2011 Industrial Design Statistical Survey conducted
- 2013 : 2013 Industrial Design Statistical Survey conducted,
  Survey cycle changed (biennial→annual)
  Established the Special Design Classification (8 sections),
  Approval of change of National statistic
- 2014 : 2014 Industrial Design Statistical Survey conducted
- 2015 : 2015 Industrial Design Statistical Survey conducted
- 2016 : 2016 Industrial Design Statistical Survey conducted
- 2017 : 2017 Industrial Design Statistical Survey conducted
- 2018 : 2018 Industrial Design Statistical Survey conducted
- 2019 : 2019 Industrial Design Statistical Survey conducted, approved statistics Regular assessment of statistics quality
- 2020 : 2020 Design Industry Statistical Survey conducted, Title changed

4) Period of Survey

- Fieldwork period : 2020. 09. 24. ~ 2020. 12. 11.
- Survey reference period : 2019. 01. 01. ~ 2019. 12. 31.

5) Subject and Range of Survey

Survey range	*Literature Survey*
• Utilization or non-utilization of design by companies in general • Companies that utilize design • Specialized design companies • Central and Local governments	• Status of Freelancers • Status of Design-related Educational Institutions • Estimation of Economic value of Design Value-added rate by Special Design Classification

6) Survey Items

Classification	Contents	
Utilization/ non-utilization of design by companies	• Whether designers have been employed as of December 2019 • Whether a request order for design development has been made to a specialized design company within the recent two years • Whether to be a midsize business*	
Survey of actual conditions of companies that utilize design	• General status of company • Investment performance of design • Status of design and level of contribution • Government policies and support	• Status of design utilization • Level of design utilization • Status of design manpower • Status of design education
Survey of actual conditions of specialized design companies	• General status of company • Business performance of design • Status of design education	• Focusing area of design and Status of design staff • International exchanges of design • Government policies and support
Survey of actual conditions of central / local governments	• Status of design utilization • Design education	• Status of request orders for design project

* Whether to be a midsize business is added since 2020.

7) Population and Sample Size

Classification	Population Size	Sample Size	Sampling Fraction(%)
Survey of Utilization of design by companies in general (a)	383,148	20,297	5.3
Survey of Actual conditions	141,971	1,854	1.3
Specialized design companies (b)	6,264	614	9.8
Central and Local governments (c)	282	266	94.3
Total (a+b+c)	389,694	21,177	5.4

8) Outline of Sample design by Survey subjects

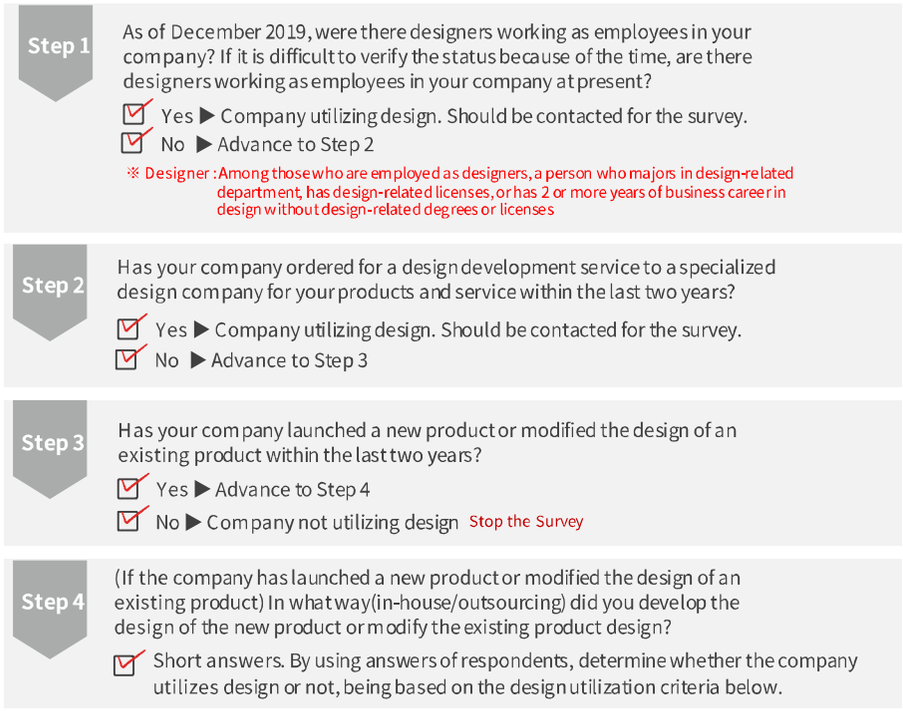
- Survey method : Visiting and e-mail/fax/phone
  ※ Due to Covid-19, the proportion of visiting surveys decreased compared to the previous year.

Classification	Sampling Method	Target Sample Size	Actual Sample Size
Companies Utilizing Design	• Two-phase sampling • [1st Phase] Survey of utilization/ non-utilization of design - Stratified sampling/ square root transformation proportional distribution • [2nd Phase] Survey of actual conditions of companies that utilize design - Stratified sampling/ square root transformation proportional distribution	• [1st Phase] Survey of utilization/ non-utilization of design - 20,000 Companies • [2nd Phase] Survey of actual conditions of companies that utilize design - 1,800 Companies	• [1st Phase] urvey of utilization/ non-utilization of design - Completed 20,297 Companies • [2nd Phase] Survey of actual conditions of companies that utilize design - Completed 1,854 Companies
	• Survey Subjects : Company representatives, department Chiefs of above staffs / Staffs in charge of design		

Classification	Sampling Method	Target Sample Size	Actual Sample Size
Specialized Design Companies	• Stratified sampling • square root transformation proportional distribution	• 600 Companies	• Completed 614 companies
	• Survey Subjects : Company representatives, department Chiefs or above staffs in charge of design		
Cental and Local Governments	• Complete enumeration survey	• Central Department (18 ministries 4 agencies and 17 offices) - 39 institutions • Local government (City/ autonomous districts) - 243 institutions	• Central Department (18 ministries 4 agencies and 17 offices) - Completed 31 institutions • Local government (City/ autonomous districts) - Completed 235 institutions
	• Public officials in charge of design		

9) Confirmation of design utilization or non-utilization of companies in general

- 'Design utilization' of companies in general is basically classified by 'Designer hiring or not' and 'Outsourcing to specialized design companies or not', the process proceeds through the following four steps.
- If a company 'hired designers as if December 2019' or 'outsourced to specialized design companies within the last two year', The company is classified as a company utilizing design.



※ Criteria for Determination of Service Orders for Specialized Design Companies

- Design service related to products and services (products and packaging)
- Brand identity(BI) advertisements, pamphlets, banners, etc. related to the promotion of products
- Production of Company Identity(CI) company introduction ads, pamphlets, web pages, interior design, uniform, etc.

※ Remark by Business Field

- Construction industry: It is difficult to separate design and construction plans. Establishing of only construction plans relates to the height, form and size of a building not regarded as design outsourcing.
- Research institutes: Employees in charge of production work are included as those who prepare the report, but shall not be called designers. Among those in charge of production work, those who majored in design shall be acknowledged as designers.
- Only designs developed originally by designers shall be recognized as designs. If modification of an existing design is made by those who did not major in design, it shall not be regarded as a design.
- Design outsourcing should have been made within the last two years. If products continue to be manufactured using a design developed from an outsource order made more than two years ago, it shall not be recognized as design outsourcing.
- Only outside companies with designers who majored in design are applicable. For example, outsourcing made to a publisher or printing company in which a designer is employed is recognized as design outsourcing.

02 Concept and Keyword

1) Company in general

- Company with 5 or more employees which fall under Special Design Classification in 2018 Census on Establishments.

2) Company utilizing design

- Company estimated to be utilizing design in the design utilization survey within companies in general(company with 5 or more employees which fall under Special Design Classification in 2018 Census on Establishments).

3) Specialized design company

- Company which fall under specialized design industry in 2018 Census on Establishments.
- Specialized design companies consist of 1 group, 1 class, and 4 subclasses based on KSIC-10.

[Section] M. Professional, scientific and technical activities [Divistion] 73. Other professional, scientific and technical services
[Group] 732. Specialized design [Class] 7320. Specialized design
[Subclass] 73201. Interior design services (Special Design Classification = 4-10-1),
73202. Products design services (Special Design Classification = 1-7-1)
73203. Graphic design services (Special Design Classification = 2-5-6),
72309. Other specialized design services (Special Design Classification = 5-5-1)

4) Korean Standard Industrial Classification[1)]

- Korean Standard Industrial Classification(KSIC) was developed to secure the accuracy and comparability of industry-related data, based on the International Standard Industrial Classification (ISIC) adopted by the United Nations(UN).
- KSIC consists of 21 sections, 77 divisions, 232 groups, 495 classes and 1,196 subclasses.

5) Special Design Classification

- Special Design Classification was established to calculate design promotion strategies and industry size and statistics by classifying the business types expected to utilize design and the business types of specialized design companies among the Korean Standard Industrial Classification.
- Special Design classification consist of 8 sections, 42 divisions, 154 groups.
- Special Design Classification was established in 2013 and used for survey design and result calculation.

1) Statistics Korea. (2017). Korean Standard Industrial Classification, refer to pp.3-11.

6) Company types

- Individual proprietorship
  - Businesses run by individuals and not by corporate bodies; businesses jointly run by different individuals are also included in this category.
  - Authorized agents, special agencies, franchise stores, etc. run independently under the responsibility of private business owners based on sales contracts concerning products, services, etc. with relevant companies.
- Incorporated companies
  - Profit-making corporations established according to the regulations of a commercial law: includes incorporated companies, limited companies, joint stock companies, unlimited partnership companies and foreign companies.
  - Foreign companies are those with branch offices, sales offices, etc. established in Korea with head offices in a foreign country (e.g. the US).
- Non-business corporations
  - These are corporations established based on the regulations of civil law or special laws and include foundations, incorporated associations, incorporated educational institutions, medical corporations, social welfare corporations, public corporations, etc.
- Unincorporated associations
  - Various associations, unions, supporters' associations, cultural organizations, labor organizations, etc. without a corporate entity.

7) Business Types

- Unit Business (one business, one office)
  - Individual office-with no head office, branch office, business office, sales office, etc. in another location
- Head offices, main stores (one business, multiple offices)
  - Businesses that supervise the overall business activities of one or more branch offices, business offices or sales offices under the same management
  - Businesses in which overall management operations such as planning, accounting, finance, purchase, advertisement, legal affairs, etc. are carried out
- Branch offices, business offices, sales offices (one business, multiple offices)
  - Branch offices, business offices, sales offices, etc. that receive directions on overall operations from a separate head office

8) Classification of Business Scale

- Classification of medium and small companies is made based on Article 2 of the Framework Act on Small and Medium Enterprises, and the other enterprises are classified as large companies.
- Midsize companies are completely classified at the step of design utilization survey.

Industry		Medium Company	Small Company	Large company
Manufacturing	Other machinery and equipment manufacturing	120~1,000 billion KRW	less than 120 billion KRW	Companies other than Small or Medium companies are classified as Large company
	Manufacture of metalworking products; Excluding machinery and furniture	120~1,000 billion KRW	less than 120 billion KRW	
	Food manufacturing	120~1,000 billion KRW	less than 120 billion KRW	
	Automobile and trailer manufacturing	120~1,000 billion KRW	less than 120 billion KRW	
	Manufacture of electronic components, computers, video, sound and communication equipment	120~1,000 billion KRW	less than 120 billion KRW	
	Manufacture of coke, briquette and oil refining products	120~1,000 billion KRW	less than 120 billion KRW	
	Chemical and chemical products manufacturing; Excluding medicines	120~1,000 billion KRW	less than 120 billion KRW	
	Manufacture of primary metal	120~1,500 billion KRW	less than 120 billion KRW	
	Furniture manufacturing	120~1,500 billion KRW	less than 120 billion KRW	
	Manufacture of leather, bags and footwear	120~1,500 billion KRW	less than 120 billion KRW	
	Manufacture of apparel, clothing accessories and fur products	120~1,500 billion KRW	less than 120 billion KRW	
	Electrical equipment manufacturing	120~1,500 billion KRW	less than 120 billion KRW	
	Manufacture of non-metallic mineral products	120~800 billion KRW	less than 120 billion KRW	
	Beverage industry	120~800 billion KRW	less than 120 billion KRW	
	Manufacture of medical materials and pharmaceuticals	120~800 billion KRW	less than 120 billion KRW	
	Manufacture of rubber and plastic products	80~1,000 billion KRW	less than 80 billion KRW	
	Other transportation equipment manufacturing	80~1,000 billion KRW	less than 80 billion KRW	
	Tobacco industry	80~1,000 billion KRW	less than 80 billion KRW	
	Manufacture of wood and wood products; Furniture exclusion	80~1,000 billion KRW	less than 80 billion KRW	
	Textile products manufacturing; Except clothing	80~1,000 billion KRW	less than 80 billion KRW	
	Manufacture of pulp, paper and paper products	80~1,500 billion KRW	less than 80 billion KRW	
	Other product manufacturing	80~800 billion KRW	less than 80 billion KRW	
	Medical, precision, optical equipment and watch manufacturing	80~800 billion KRW	less than 80 billion KRW	
	Printing and Recording Media Reproduction	80~800 billion KRW	less than 80 billion KRW	
Non-manufacturing	Electricity, gas, steam, and water services	120~1,000 billion KRW	less than 120 billion KRW	
	Construction	80~1,000 billion KRW	less than 80 billion KRW	
	Mining	80~1,000 billion KRW	less than 80 billion KRW	
	Agriculture, forestry and fishing	80~1,000 billion KRW	less than 80 billion KRW	
	Transportation	80~800 billion KRW	less than 80 billion KRW	
	sewage and waste disposal, raw material recycling	80~800 billion KRW	less than 30 billion KRW	
	Financial service and insurance activities	80~400 billion KRW	less than 80 billion KRW	
	Wholesale and retail sale	50~1,000 billion KRW	less than 50 billion KRW	
	Publishing, video, broadcast communications and information services	50~800 billion KRW	less than 50 billion KRW	
	Real estate activities and renting and leasing	30~400 billion KRW	less than 30 billion KRW	
	Business facilities and management and business support services	30~600 billion KRW	less than 30 billion KRW	
	Arts, sports and recreation related services	30~600 billion KRW	less than 30 billion KRW	
	Professional, scientific and technical services	30~600 billion KRW	less than 30 billion KRW	
	Health and social work services	10~600 billion KRW	less than 10 billion KRW	
	Membership organizations, repair and other personal services	10~600 billion KRW	less than 10 billion KRW	
	Education services	10~400 billion KRW	less than 10 billion KRW	
	Accommodation and restaurant business	10~400 billion KRW	less than 10 billion KRW	
	Public administration, defense and social security administration	50~299 employees	less than 49 employees	

※ The public administrations, national defenses, and social security administrations are classified by the number of employees in a conventional manner, because there is no criteria for classification of these kinds of things.

9) Employees

- Full-time Employees
  - Those who have concluded employment contracts for one year or longer with the business or those, although without an employment contract for a certain period, who are subjected to the company's personnel management rules or receive various benefits including bonuses from the company
- Temporary or Daily employed Workers
  - Workers with less than one year of employment under contract who receive wages from the company

10) Business Results

- Sales : Total earnings from business activities carried out for the year 2019
- Personnel expenses : benefits and charges paid to employees including wages, welfare benefits, retirement allowances, etc. for the year 2019
- R&D costs : Research costs, development costs, ordinary R&D costs
- Business profits : Profits obtained by subtracting operation costs from total sales

11) Design related Investments and Business Expenses

- Personnel expenses for designers
  - Personnel expenses for designers employed for the year 2019
- Design service charges
  - Service charges for specialized design companies, freelancers etc. for the year 2019
  ※ Service charges of specialized design companies and other service charges separated.
- Design machines/devices and software
  - Expenses for purchase and management of equipment, devices, computer systems and application software for design R&D for the year 2019
- Land/building for design
  - R&D Expenses spent on purchase, major repair, etc. of land and buildings for design R&D for the year 2019
- Other design-related operation costs
  - Other costs for design research such as those spent on materials, printed matters, purchase of fixtures, education and training, business trips, etc. for the year 2019

12) Standards for designer

- Among those employed as designers, those with design-related degrees or certificates, or those with two or more years of experience in design who do not hold design-related degrees or certificates

13) Application for / registration of industrial property rights

- application : Submission of documents required under relevant laws to a government agency for the purpose of registration of industrial property rights
- Registration : Administrative measures by an administrative agency evaluating submitted application materials based on formal and actual conditions required by relevant laws, and authorization of rights when the requirements are satisfied

14) Good Design(GD) Mark

- The Good Design (GD) Selection program has been carried out since 1985.
  Under this program, designs of products currently on sale or those soon to be on sale are evaluated based on form, economic feasibility, convenience, etc. Products selected through the evaluation are authorized by the government as Good Design products and given the GD mark.

15) Standard design contracts

- Four types of standard contract forms related to product design, product design including incentive compensation, visual design, multi-media design and are produced to improve unfair practices prevalent in the design industry.

03 Characteristics of Respondents

1) Companies in general – Survey on utilization or non-utilization of design

Classification		Survey Sample	
		Number of cases	%
Total		**20,297**	**100.0**
Region	Gyeonggi	5,360	26.4
	Seoul	5,218	25.7
	Busan/Ulsan/Gyeongnam	2,719	13.4
	Daejeon/Chungcheong	1,959	9.7
	Daegu/Gyeongbuk	1,863	9.2
	Gwangju/Jeolla	1,557	7.7
	Incheon	976	4.8
	Gangwon/Jeju	645	3.2
Business Type	Product design	4,572	22.5
	Visual design	2,019	9.9
	Digital/multimedia design	795	3.9
	Space design	4,511	22.2
	Fashion/textile design	1,166	5.7
	Service/experience design	2,451	12.1
	Industrial craft design	1,551	7.6
	Design infrastructure (design-based technology)	3,232	15.9
Business Scale	Small companies	13,282	65.4
	Medium companies	5,043	24.8
	Midsize companies	979	4.8
	Large companies	993	4.9

2) Companies in general - Survey of companies that utilize design

Classification		Survey Sample	
		Number of cases	%
Total		**1,854**	**100.0**
Region	Seoul	570	30.7
	Gyeonggi	440	23.7
	Busan/Ulsan/Gyeongnam	243	13.1
	Daejeon/Chungcheong	163	8.8
	Daegu/Gyeongbuk	140	7.6
	Gwangju/Jeolla	161	8.7
	Gangwon/Jeju	84	4.5
	Incheon	53	2.9
Busi-ness Type	Product design	379	20.4
	Visual design	232	12.5
	Digital/multimedia design	143	7.7
	Space design	377	20.3
	Fashion/textile design	154	8.3
	Service/experience design	221	11.9
	Industrial craft design	96	5.2
	Design infrastructure (design-based technology)	252	13.6
Busi-ness Scale	Small companies	1,091	58.8
	Medium companies	639	34.5
	Midsize companies	87	4.7
	Large companies	37	2.0
Employ-ment	Designer employment	1,424	76.8
	Designer non-employment	430	23.2
Outsour cing	Design outsourcing	1,022	55.1
	Design non-outsourcing	832	44.9

3) Specialized design companies

Classification		Survey Sample	
		Number of cases	%
Total		**614**	**100.0**
Region	Seoul	386	62.9
	Gyeonggi	56	9.1
	Busan/Ulsan/Gyeongnam	45	7.3
	Gwangju/Jeolla	39	6.4
	Daegu/Gyeongbuk	38	6.2
	Daejeon/Chungcheong	29	4.7
	Gangwon/Jeju	13	2.1
	Incheon	8	1.3
Business type	Product design	150	24.4
	Visual design	194	31.6
	Interior design	156	25.4
	Other types of fashion/ textile design	114	18.6
Number of employees	1 person	103	16.8
	2-4 persons	242	39.4
	5~9 persons	146	23.8
	10~19 persons	83	13.5
	20 or more persons	40	6.5
Type	individual proprietorship	347	56.5
	Incorporated company	265	43.2
	Non-business corporation	2	0.3
	Unincorporated association	0	0.0

4) Central government agencies

- 31 agencies completed, out of 39 agencies[2)]

Classification	
Ministry	· 14 ministries / 18 ministries Ministry of Science and ICT; Ministry of Education; Ministry of National Defense; Ministry of Land, Infrastructure and Transport; Ministry of Strategy and Finance; Ministry of Agriculture, Food and Rural Affairs; Ministry of Culture, Sports and Tourism; Ministry of Trade, Industry and Energy; Ministry of Gender Equality & Family; Ministry of Foreign Affairs; Ministry of Unification; Ministry of Oceans and Fisheries; Ministry of Public Administration and Security; Ministry of Environment
Agency	· 3 agencies / 4 agencies Ministry of Government Legislation; Ministry of Food and Drug Safety; Ministry of Personnel Management
Office	· 14 officies / 17 officies the National Police Agency; National Tax Service; Korea Meteorological Administration; Rural Development Administration; Cultural Heritage Administration; Defense Acquisition Program Administration; Military Manpower Administration; Sae-mangeum Development and Investment Agency; National Fire Agency; Public Procurement Service; Statistics Korea; Korean Intellectual Property Office; Korea Coast Guard;

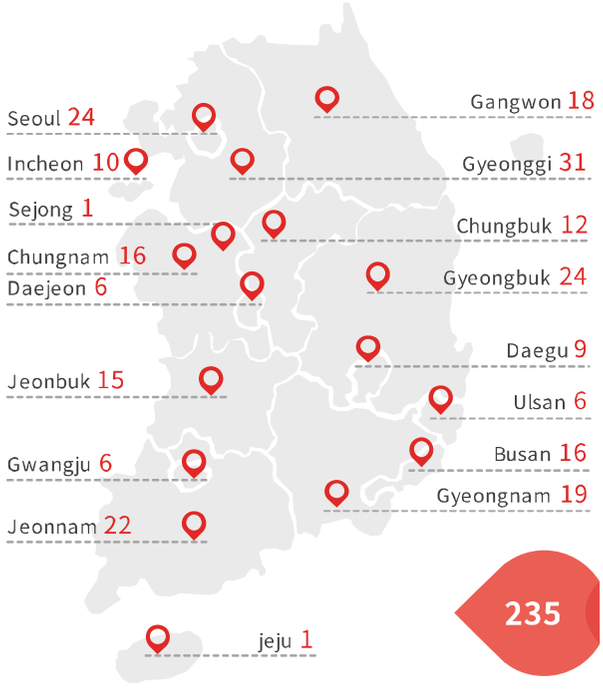
5) Local governments

- 235 local government agencies completed, out of 243[3)]

[Local Government Completed Survey by region]

Completed Survey / Total local Government

City/Province		City/Country/District			Total
		City	Country	District	
Seoul	1/1			23/25	24/26
Busan	1/1		0/1	14/15	15/17
Daegu	1/1		1/1	7/7	9/9
Incheon	1/1		2/2	7/8	10/11
Gwangju	1/1			5/5	6/6
Daejeon	1/1			5/5	6/6
Ulsan	1/1		1/1	4/4	6/6
Gyeonggi	1/1	27/28	3/3		31/32
Gangwon	1/1	6/7	11/11		18/19
Chungbuk	1/1	3/3	8/8		12/12
Chungnam	1/1	8/8	7/7		16/16
Sejong	1/1				1/1
Jeonbuk	1/1	6/6	8/8		15/15
Jeonnam	1/1	5/5	16/17		22/23
Gyeongbuk	1/1	10/10	13/13		24/24
Gyeongnam	1/1	8/8	9/9		19/19
jeju	1/1				1/1
Total	17/17	73/75	80/82	65/69	235/243



2) Not responded : Ministry of Employment and Labor; Ministry of Justice; Ministry of Health and Welfare; Ministry of SMEs and Startups; Ministry of Patriots and Veterans Affairs; Public Prosecutors' Office; Korea Forest Service; National Agency for Administrative City Construction

3) Not responded : Seoul Gwang-jin-gu, Seoul; Yeongdeungpo-gu, Seoul; Dong-gu, Busan; Gijang-gun, Busan; Jung-gu, Incheon; Dongducheon-si, Gyeonggi; Jangseong-gun, Jeonnam; Gangreung-si, Gangwon

2020 KOREA DESIGN STATISTICAL DATA

02

Major Statistics

2020 KOREA DESIGN STATISTICAL DATA

01 Size of Design Industry

- Size of design industry in 2019 : 18,290.9 billion KRW

  The size is estimated by adding up the amount of design investments by companies utilizing design (12,808.3 billion KRW[4]), sales by specialized design companies (3,962.8 billion KRW[5]), budget for design departments in the public sector (230.9 billion KRW), size of freelancers industry (1,040.8 billion KRW) and higher education sector (248.2 billion KRW)[6].

- Design manpower : 335,903

  The amount was estimated by adding up the numbers of designers at companies that utilize design (266,075), employees at specialized design companies (17,026), employees at design departments in the public sector (621), the number of freelancers (49,847) and professors at design-related university departments (2,333).

▼ Size and manpower of design industry (Unit : Million KRW, Persons)

Classification		2018		2019		YoY	
		Size of design industry	Design Manpower	Size of design industry	Design Manpower	Size of design industry	Design Manpower
Survey of Actual condi-tions	Companies utilizing design	12,758,020	261,760	12,808,262	266,075	▲ 0.4%	▲ 1.6%
	Specialized design companies	3,624,542	17,566 *(27,670)	3,962,759	17,026 *(25,284)	▲ 9.3%	▼ 3.1%
	Public Sector	229,214 **(31,998)	830	230,881 **(35,144)	621	▲ 0.7%	▼ 25.2%
Subtotal		**16,611,776** **(16,414,550)	**280,156** *(290,260)	**17,001,902** **(16,806,165)	**283,722** *(291,980)	▲ 2.3%	▲ 1.3%
Litera-ture	Freelancers	999,053	47,847	1,040,812	49,847	▲ 4.2%	▲ 4.2%
	Higher education	251,733	2,408	248,212	2,333	▼ 1.4%	▼ 3.1%
Subtotal		**1,250,786**	**50,255**	**1,289,024**	**52,180**	▲ 3.1%	▲ 3.8%
Total		**17,862,562** **(17,664,336)	**330,411** *(340,515)	**18,290,926** **(18,095,189)	**335,903** *(344,161)	▲ 2.4%	▼ 1.7%

* The number of employees in specialized companies including those who are not designers

** Size of industry estimated by deducting service charges of public sector

4) Size of Companies in general : No. of companies utilizing design (Estimates) × Avg. of amount of design investments (Survey Results, Exclude Excludes service fee for specialized design company)

5) Size of specialized design companies industry : Average amount of specialized design companies' sale (Sample Survey Results) × Number of Populations (Designers specialized in 2018 Census on Establishment)

6) Calculated as the sum of the professor's annual salary estimate and research expenses

1. Size and Manpower of Companies utilizing design

- Average amount of design investment by companies that utilize design is estimated at 90.22 million KRW and the industry size is estimated at 12,808.3 billion KRW.
- The average amount of design investment by business type is the highest in Product design with 165.72 million KRW, followed by Visual design (156.98 million KRW), Digital/multimedia design (139.91 million KRW), Fashion/textile design (19.57 million KRW), Space design (83.94 million KRW), Service/experience design (78.41 million KRW), Design infrastructure (55.48 million KRW) and Industrial craft design (52.00 million KRW).
- Regarding industry size, Product design (2,828.7 billion KRW) is the highest, followed by Design infrastructure (2,513.4 billion KRW), Service/ experience design (2,303.2 billion KRW), Space design (2,157.7 billion KRW) and Visual design (1,563.9 billion KRW).
- By size, the average amount of design investment in Small companies is 57.90 million KRW, Medium companies is 141.94 million KRW, in Midsize companies is 705.91 million KRW, in large companies is 1,260.89 million KRW, which means that the larger size, the higher average amount of design investment

▼ Size of design industry of companies utilizing design (Unit : Million KRW)

Classification		2018			2019			YoY
		No. of companies utilizing design	Average amount of design investment	Industry Size	No. of companies utilizing design	Average amount of design investment	Industry Size	
Business Type	Product design	14,495	190.17	2,756,618	17,069	165.72	2,828,726	▲ 2.6%
	Visual design	10,123	162.14	1,641,380	9,963	156.98	1,563,918	▼ 4.7%
	Digital/multimedia design	4,586	137.81	631,970	4,470	139.91	625,449	▼ 1.0%
	Space design	23,569	85.84	2,023,206	25,704	83.94	2,157,702	▲ 6.6%
	Fashion/textile design	5,217	104.19	543,565	5,055	109.57	553,914	▲ 1.9%
	Service/experience design	27,707	83.42	2,311,484	29,372	78.41	2,303,196	▼ 0.4%
	Industrial craft design	5,109	53.50	273,333	5,038	52.00	261,956	▼ 4.2%
	Design infrastructure	42,409	60.75	2,576,465	45,300	55.48	2,513,401	▼ 2.4%
Business Scale	Small companies	96,905	71.61	6,939,326	111,256	57.90	6,441,470	▼ 7.2%
	Medium companies	33,711	106.97	3,605,964	28,203	141.94	4,003,179	▲11.0%
	Midsize companies	1,521	599.43	911,908	1,451	705.91	1,024,305	▲12.3%
	Large companies	1,079	1,205.26	1,300,821	1,062	1,260.89	1,339,308	▲ 3.0%
Total		**133,216**	**95.77**	**12,758,020**	**141,971**	**90.22**	**12,808,262**	**▲ 0.4%**

- The average number of designers in companies utilizing design is 1.87, which is lower than 2018 (1.96). The average number of designers in companies that hire designers is 2.47 (2.64 in 2018). The number of manpower in companies utilizing design is estimated to be 266,075.
- The number of manpower in design industry by business type is highest in Design infrastructure (60,075), while it is lowest in Industrial craft design (7,591).

▼ Design manpower in companies utilizing design (Unit : Persons)

Classification		2018			2019			YoY
		Avg. no. of designers in companies employing designers	Avg. no. of designers in companies utilizing design	Manpower	Avg. no. of designers in companies employing designers	Avg. no. of designers in companies utilizing design	Manpower	
Business Type	Product design	2.98	2.62	38,047	3.23	2.62	40,311	▲ 6.0%
	Visual design	2.69	2.52	25,484	2.94	2.52	23,932	▼ 6.1%
	Digital/multimedia design	2.92	2.69	12,315	3.31	2.69	13,753	▲11.7%
	Space design	3.56	2.30	54,279	3.22	2.30	56,359	▲ 3.8%
	Fashion/textile design	3.35	2.46	12,825	2.92	2.46	12,958	▲ 1.0%
	Service/experience design	3.39	1.88	51,959	2.46	1.88	51,097	▼ 1.7%
	Industrial craft design	1.80	1.48	7,577	1.79	1.48	7,591	▲ 0.2%
	Design infrastructure	1.74	1.40	59,275	1.67	1.40	60,075	▲ 1.3%
Business Scale	Small companies	2.14	1.59	154,462	1.83	1.39	154,320	▼ 0.1%
	Medium companies	3.04	2.29	77,045	3.63	2.80	79,006	▲ 2.5%
	Midsize companies	11.95	10.38	15,796	15.72	11.82	17,152	▲ 8.6%
	Large companies	42.74	13.40	14,457	33.86	14.68	15,596	▲ 7.9%
Total		**2.64**	**1.96**	**261,760**	**2.47**	**1.87**	**266,075**	▲ 1.6%

2. Size and Manpower of Specialized Design Companies

- Average amount of sales in specialized design companies is 632.62 million KRW (650.73 million KRW in 2018), and the size of the specialized design companies is estimated to be 3,962.8 billion KRW. Meanwhile, the number of specialized design companies is 6,264, which shows an increase 12.4%) from 2018 (5,570).
- Examining the average sales of specialized design industry by business type, Interior design is the highest with 883.14 million KRW. The number of companies and Industry size of Product design shows a significant increase compared to the previous year (▲14.0%, ▲27.0% each).

▼ Size of specialized design industry (Unit : Persons)

Classification		2018			2019			YoY
		No. of companies	Average sales	Size of industry	No. of companies	Average sales	Size of industry	
Business Type	Product design	1,260	634.24	799,143	1,437	706.52	1,015,276	▲27.0%
	Visual design	2,105	455.98	959,845	2,346	419.97	985,244	▲ 2.6%
	Interior design	1,357	957.43	1,299,239	1,613	883.14	1,424,502	▲ 9.6%
	Other types of fashion/ textile design	848	667.82	566,315	868	619.51	537,737	▼ 5.0%
Total		**5,570**	**650.73**	**3,624,542**	**6,264**	**632.62**	**3,962,759**	**▲ 9.3%**

- Average number of employees in specialized design companies is 4.04 and the overall manpower in the industry is estimated to be 25,284. Compared to the previous year, the number of companies shows an increase of 12.4%, while manpower decreases 8.6%.
- Regarding industry size, Visual design(9,406) is the highest, followed by Product design(6,396), Interior design(6,296), and Other types of fashion/ textile design(3,186). Meanwhile, the manpower of Interior design decreases of 29.3% compared to the previous year.

▾ Design manpower in specialized design companies (Based on the number of employees)

(Unit : Persons)

Classification		2018			2019			YoY
		No. of companies	Average No. of employees	Manpower	No. of companies	Average No. of employees	Manpower	
Busi-ness Type	Product design	1,260	4.85	6,106	1,437	4.45	6,396	▲ 4.7%
	Visual design	2,105	4.46	9,378	2,346	4.01	9,406	▲ 0.3%
	Interior design	1,357	6.56	8,909	1,613	3.90	6,296	▼29.3%
	Other types of fashion/ textile design	848	3.86	3,277	868	3.67	3,186	▼ 2.8%
Total		**5,570**	**4.97**	**27,670**	**6,264**	**4.04**	**25,284**	**▼ 8.6%**

- Average number of designers in specialized design companies is 2.72 and the overall number of designers is estimated to be 17,026. Compared to the previous year, the number of designer shows a decrease of 3.1%, as well. However, the decrease is low compared to the total number of employees.
- By business type, Other types of fashion/ textile design shows a larger decrease in manpower (▼13.1%) compared to the total manpower.

▾ Design manpower in specialized design companies (Based on the number of designers)

(Unit : Persons)

Classification		2018			2019			YoY
		No. of companies	Average No. of designer	Manpower	No. of companies	Average No. of designer	Manpower	
Busi-ness Type	Product design	1,260	3.46	4,357	1,437	3.12	4,487	▲ 3.0%
	Visual design	2,105	3.18	6,690	2,346	2.96	6,952	▲ 3.9%
	Interior design	1,357	3.26	4,426	1,613	2.34	3,768	▼14.9%
	Other types of fashion/ textile design	848	2.47	2,093	868	2.10	1,818	▼13.1%
Total		**5,570**	**3.15**	**17,566**	**6,264**	**2.72**	**17,026**	**▼ 3.1%**

3. Size and Manpower of Public Sector

- The budget for design departments of central government is 66.6 billion KRW, local government budget for design departments is 164.3 billion KRW and the total design budget in the public sector is estimated to be 230.9 billion KRW, a slight increase from the previous year (229.2 billion KRW).
- The number of employees in design departments of the central government is 46, and that of employees in design departments in local governments is 575. By adding these figures, the total number of design-related employees in the public sector is estimated to be 621, a decrease from the previous year(830).

▼ Design investment and manpower in public sector (Unit : Million KRW, Persons)

Classification	2018		2019	
	Total budget for design department	Total number of employees in design departments	Total budget for design department	Total number of employees in design departments
Central government	69,508 *(6,045)	91	66,623 *(2,250)	46
Local government	159,706 *(25,943)	739	164,258 *(32,894)	575
Total	**229,214 *(31,988)**	**830**	**230,881 *(35,144)**	**621**

4. Size and Manpower of Freelancers

- The number of freelance designers is 49,847, an increase of 2,000 compared to 2018(47,847).

No. of freelancers Equation for estimation

$$\text{Estimated no. of employees in specialized design companies \& Designers in companies in general} \times \frac{\text{No. of designers who are individual proprietors with no employees}}{\text{Total number of designers}}$$

- No. of freelancers 49,847 = (No. of employees in specialized design companies 25,284 + No. of designers in companies in general 266,075)*17.1%

※ Designers(Code : 285) who are individual proprietors without employees / Total no. of designers = 17.1% (Source : 2019 Regional Employment Survey)

▼ Freelance designer Employment Status

Individual proprietors with no employees	Other Designers Full-time employees, Temporary employees, Daily employed and Indicidual proprietors with emoloyees, Unpaid family workers	Total
38,190	185,034	**223,224**

- Size of freelance designer industry is 1,040.8 billion KRW, a decrease compared to the previous year. Size of freelance designer industry 1,040.8 billion KRW = 49,847 × Average monthly wage for freelancers 1,700,000 KRW × 12 months

※ Average monthly wage for freelance designers is estimated by using the result of Regional Employment Survey.

Size of freelance designer industry Equation for estimation

$$\text{Estimated number of Freelance designers} \times \text{Average monthly wage for freelance designers} \times \text{12 months}$$

▼ Freelance designer Employment Status

Classification	2018	2019	YoY
Number of freelance designers	47,847	49,847	**▲ 4.2%**
Size of freelance designer industry	999 billion KRW	1,040.8 billion KRW	**▲ 4.2%**

5. Size and Manpower of Educations Sector

- Size of industry in the higher education sector is 248,212 million KRW.
  Size of manpower is obtained by adding up the annual salary of professors 224,915 million KRW and research funds for design departments 232,097 million KRW.

Education Sector				
248,212 million KRW	224,915 million KRW (Annual salary of professors)	+	23,297 million KRW (Research funds for design departments)

※ Size of manpower is obtained by adding up the numbers of professors, associate professors, assistant professors and full-time lecture[7] in design-related departments of junior colleges and four-year universities/colleges.

▼ Annual salary of professors of design department (Unit : Million KRW, Persons)

Classification		2018			2019		
		Average annual salary	No. of design faculty	Estimated annual salary of design faculty	Average annual salary	No. of design faculty	Estimated annual salary of design faculty
Four-year Colleges/ Universities	Professor	113.5	742	84,182	118.3	734	**86,804**
	Associate professor	94.8	322	30,524	98.8	337	**33,300**
	Assistant professor	79.6	424	33,746	83.0	404	**33,517**
	Full-time lecturers	59.6	121	7,216	62.2	113	**7,013**
Subtotal		-	**1,609**	**155,669**	-	**1,588**	**161,393**
Junior Colleges	Professor	107.6	226	24,324	112.2	220	**24,682**
	Associate professor	87.8	245	21,508	91.5	206	**18,850**
	Assistant professor	71.4	207	14,778	74.4	195	**14,512**
	Full-time lecturers	48.0	121	5,789	50.0	125	**6,237**
Subtotal		-	**799**	**66,400**	-	**746**	**64,178**
Total		-	**2,408**	**222,068**	-	**2,333**	**224,915**

※ Annul salary of professors of design department and number of design faculty is calculated by using KEDI Educational Statistics Database.

▼ Research funds for design department (Unit : Million KRW)

Classification		2018	2019	YoY
Four-year Colleges/ Universities	Central government fund	15,526	10,115	▼34.9%
	Local government fund	1,949	1,812	▼ 7.0%
	Private fund	6,259	5,789	▼ 7.5%
	Foreign fund	33	10	▼69.7%
	Domestic fund	4,547	3,831	▼15.7%
Subtotal		**28,314**	**21,557**	**▼23.9%**
Junior Colleges	Faculty	1,351	1,740	▲28.8%
Total		**29,665**	**23,297**	**▲21.5%**

※ Refer to the result of the 2019 Survey of University Research Activities report.

7) Full-time faculty included dean, professor, associate professor, assistant professor, and full-time lecturers until 2012. However, since 2013, the `Full-time Lecturer System' was abolished, Full-time faculty includes Assistant professors include dean, professor, associate professor, assistant professor, excluding full-time lecturers. Non-full-time lecturer includes adjunct professors, visiting professors, part-time lecturers, honorary professors, visiting professors, Honorary Professor, and others. guest professors, and others The number of full-time lecturers was not provided in the KEDI Educational Statistics Database, and was thus estimated using the rate of change in the number of registered students between 2018 and 2019.

02 Changes in the Size of Design Industry

- The size of the design industry is continuously increasing, and the total industry size in 2019 is estimated at 18.29 trillion KRW.
- Of the total size, the industry size of companies utilizing design accounts for the largest share of the industry with more than 70% annually, but the freelance industry is estimated to have grown the most.
- Meanwhile, the industry size of higher education has been shown to remain at a similar level since 2015 without significant changes.

▼ Changes in size of design industry from 2012 to 2019 (Unit : Million KRW)

Classification	2013	2014	2015	2016	2017	2018	2019
Companies utilizing design	9,152,954	10,292,018	11,252,597	12,041,094	12,348,980	12,758,020	**12,808,262**
Specialized Design service	2,745,643	2,990,423	3,059,925	3,357,819	3,524,707	3,624,542	**3,962,759**
Public Sector	247,758	138,281 *(17,782)	271,727 *(36,709)	232,050 *(43,120)	234,287 *(42,944)	229,214 *(31,988)	**230,881** *(35,144)
Subtotal	**13,067,240**	**13,420,722** *(13,300,223)	**14,584,249** *(14,349,231)	**15,630,964** *(15,442,034)	**16,107,975** *(15,916,632)	**16,611,776** *(16,414,550)	**17,001,902** *(16,806,165)
Freelance Designers	691,968	715,641	820,990	1,034,235	1,189,519	999,053	1,040,812
Higher Education	228,917	233,758	246,359	248,517	247,577	251,733	248,212
Total	**13,067,240**	**14,370,121** *(14,249,622)	**15,651,598** *(15,416,580)	**16,913,716** *(16,724,786)	**17,545,071** *(17,353,728)	**17,862,562** *(17,665,336)	**18,290,926** *(18,095,189)

* After 2014, (parenthesis) in public sectors is the amount of the size of design industry(budget for design departments) excluding design-related service charges.

03 Amount of Design Export·Import

• Amount of income by companies utilizing design is estimated at 15 billion KRW.

Companies utilizingdesign Amount of import = No. of companies Utilizing design × Ratio of Import companies × (Average design investment × Ratio of foreign outsourcing for design development)

▼ Estimated amount of design import (Unit : Million KRW)

Classification	Estimated No. of companies utilizing design	Ratio of import companies[8]	Average design investment	Ratio of foreign outsourcing for design development	Estimated amount of import
Design Import	141,971	0.40%	90.22	29.07%	**15,015**

• Amount of design export by specialized design companies is estimated at 59.8 billion KRW.

Specialized design companies Amount of export = No. of specialized design companies × Ratio of export companies × (Average sales × Ratio of overseas sales)

▼ Estimated amount of design export (Unit : Million KRW)

Classification	no. of companies design companies	Ratio of export companies[9]	Average Sales (Million KRW)	Ratio of foreign clients in sales	Estimated amount of export (million KRW)
Design export	6,264	3.44%	632.62	43.85%	**59,831**

▼ Changes in design import/export from 2012 to 2018 (Unit : 100 Million KRW)

Classification	2013	2014	2015	2016	2017	2018	2019
Import Amount(A)	262	192	70	103	135	163	**150**
Export Amount(B)	440	456	741	882	807	711	**598**
Difference (B-A)	178	264	671	779	672	548	**448**

8) Ratio of import companies: Companies that appeared to have 1% or higher percentage of foreign company outsourcing for design development in the Industrial Design Statistical Survey
9) Ratio of export companies: Companies that appeared to have 1% or higher percentage of foreign clients in sales composition in the Industrial Design Statistical Survey

04 Economic Value of Design

- Economic value of design in 2019 is estimated at 128 trillion KRW (128 trillion KRW in 2018).
- By the business type, economic value of Design infrastructure (41.3 trillion KRW) and Service/experience design (40.8 trillion KRW) are high, followed by Product design(18.7 trillion KRW), Visual Design(5 trillion KRW), Digital/multimedia design(3.3 trillion KRW).

Design Economic Value = Sales from industries that belong to the Special Design Classification × Ratio of design utilization × Contribution rate of design × Added value ratio

▼ Calculation status of economic value of design

Classification	Sales (Unit : Million KRW)	Contribution rate of design (Unit : %)	Added value ratio (Unit : %)	Economic value of design (Unit : Million KRW)
Product design	230,193,076	28.8%	28.1%	18,668,581
Visual design	69,047,850	27.2%	26.8%	5,018,680
Digital/multimedia design	23,276,087	29.8%	47.7%	3,303,749
Space design	120,353,461	30.4%	43.7%	15,996,822
Fashion/textile design	21,720,295	30.0%	20.0%	1,305,889
Service/experience design	245,812,644	26.2%	63.5%	40,845,613
Industrial craft design	22,142,179	26.5%	31.7%	1,859,143
Design infrastructure	288,516,131	25.1%	57.1%	41,343,732
Total	**1,021,061,721**	-	-	**128,342,209**

※ Sales: Sales from industries that belong to the Special Design Classification × ratio of design utilization × sales increase rate between 2014 and 2019[10)]

※ Contribution rate of design: Results of Design Survey

※ Added value ratio: Data presumed to be from the Bank of Korea[11)]

10) We use the sales growth rate data of all industries in the Business Management Analysis Index announced by the Bank of Korea and the results of applying the design utilization ratio to the sum of sales of relevant companies in Special Design Classification in the 2015 Economic Census.

11) We used the ratio of value added in the inter-industry relations table (based on 2018 table) announced by the Bank of Korea. Calculate the ratio of value added of the recent year by the design classification (Sections), matching the product classification I.O. (Input Output) with the design classification and reflecting the business distribution in Groups of design classification.

▼ Economic value of design

Special Design Classification	2018	2019	YoY
Product design	17,900,385	17,900,385	▲ 4.3%
Visual design	5,237,149	5,237,149	▼ 4.2%
Digital/multimedia design	3,223,211	3,223,211	▲ 2.5%
Space design	15,381,122	15,381,122	▲ 4.0%
Fashion/textile design	1,336,516	1,336,516	▼ 2.3%
Service/experience design	41,425,823	41,425,823	▼ 1.4%
Industrial craft design	1,682,833	1,682,833	▲10.5%
Design infrastructure	38,152,454	38,152,454	▲ 8.4%
Total	**124,339,493**	**124,339,493**	**▲ 3.2%**

05 Design Utilization Rate

- (Based on companies with 5 or more employees)
  out of 826,198 companies with 5 or more employees, the number of companies utilizing design is 141,971 and the design utilization rate is 17.2%.
- (Based on Special Design Classification) The design utilization rate of 383,148 companies that fall under Special Design Classification is 37.1%.

▼ Changes in the percentage of companies utilizing design

Classification	2018		2019	
	Company with five or more employees	Company with five or more employees under Special Design Classification	Company with five or more employees	Company with five or more employees under Special Design Classification
Design Utilization Rate	16.8%	35.9%	**17.2%**	**37.1%**

* Calculation of design utilization rate excludes specialized design companies.

▼ Design Utilzation Rate of companies with 5 or more employees (Unit : Number)

KSIC Secition / Scale		Classification		Design Utilization Rate
		Company with five or more employees*	Company utilizing design	
KSIC Sec -tion	Agriculture, forestry and fishing	2,103	706	11.9%
	Mining	556	-	0.0%
	Manufacturing	159,499	117,616	23.7%
	Electricity, gas, steam, and water services	869	-	0.0%
	sewage and waste disposal, raw material recycling	4,790	-	0.0%
	Construction	64,700	55,692	26.9%
	Wholesale and retail sale	133,532	55,600	17.4%
	Transportation	24,249	8,348	11.2%
	Accommodation and restaurant business	109,735	63	0.0%
	Publishing, video, broadcast communications and information services	18,054	16,450	50.5%
	Financial service and insurance activities	29,640	11,587	16.4%
	Real estate activities and renting and leasing	24,415	22,939	28.7%
	Professional, scientific and technical services	38,171	24,234	26.7%
	Business facilities and management and business support services	22,028	16,806	25.5%
	Public administration, defense and social security administration	10,674	330	1.2%
	Education services	50,320	23,880	23.8%
	Health and social work services	88,491	14,304	6.7%
	Arts, sports and recreation related services	15,495	4,444	11.0%
	Membership organizations, repair and other personal services	28,877	10,150	13.8%
Busi -ness Scale	Small companies	672,611	307,796	16.3%
	Medium companies	146,857	72,225	20.7%
	Large companies	6,730	3,127	23.6%
Total		**826,198**	**383,148**	**17.2%**

* Calculation of design utilization rate excludes specialized design companies.

- The design utilization rate in the special design classification is 37.1%, and 141,971 design utilization companies are estimated.
- Among companies utilizing design, 49.0% of the companies employing designers accounted for 69,604.

▾ Design utilizing and Designer employment rate

Company utilizing Design(design utilization rate in the special design classification)	Company employing designer (Designers employment rate of companies utilizing design)
141,971 (37.1%)	69,604 (49.0%)

▾ The design utilization rate in the special design classification (Unit : Number)

Classification		No. of companies			Design Utilization Rate
		Company with 5 or more employees under Special design classification	Companies utilizing design	Companies not utilizing design	
Busi-ness Type	Product design	54,616	17,069	37,547	31.3%
	Visual design	21,143	9,963	11,180	47.1%
	Digital/multimedia design	7,752	4,470	3,282	57.7%
	Space design	83,067	25,704	57,363	30.9%
	Fashion/textile design	13,136	5,055	8,081	38.5%
	Service/experience design	75,731	29,372	46,359	38.8%
	Industrial craft design	19,410	5,038	14,372	26.0%
	Design infrastructure (design-based technology)	108,293	45,300	62,993	41.8%
Busi-ness Scale	Small companies	307,796	109,930	197,867	35.7%
	Medium companies	63,667	26,432	37,235	41.5%
	Midsize companies	8,558	4,022	4,536	47.0%
	Large companies	3,127	1,588	1,539	50.8%
Total		**383,148**	**141,971**	**241,177**	**37.1%**

06 Status of Graduate and Employment of Department of Design

- The number of graduates from design departments at universities and graduate schools reached 20,920(down 734 on 2018), and the number of the employed among them reached 12,178 (down 836 on 2018)[12].
- Meanwhile, the number of graduates excluding them who are advanced, enlisted, unable to work, excluder and foreign students reached 18,404, down 1,246 year-on-year.

1) Status of graduates and employment of department of design

▼ Status of graduates and employment of department of design (Unit : Persons)

Classification	Status of Graduates and Employment		
	Graduates	Graduates(A)	Employment(B)
2019	20,920	18,404	12,178
2018	21,975	19,650	13,014
YoY	**▼ 1,055**	**▼ 1,246**	**▼ 836**

▼ Status of graduates and employment of department of design by classification (Unit : Persons)

Classification		Status of Graduates and Employment											
		Graduates				Graduates(A)				Employment(B)			
		bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total
전체		**20,276**	**496**	**148**	**20,920**	**18,015**	**294**	**95**	**18,404**	**11,890**	**212**	**76**	**12,178**
University type	Junior college	8,733	-	-	8,733	7,404	-	-	7,404	5,063	-	-	5,063
	University	10,713	-	-	10,713	9,864	-	-	9,864	6,238	-	-	6,238
	Industrial college	112	-	-	112	104	-	-	104	74	-	-	74
	University(college)	13	-	-	13	12	-	-	12	9	-	-	9
	Graduate college	-	496	148	644	-	294	95	389	-	212	76	288
	Functional college	705	-	-	705	631	-	-	631	506	-	-	506
Major	General design	1,579	294	59	1,932	1,395	158	33	1,586	885	118	30	1,033
	Product design	3,263	39	26	3,328	2,891	29	19	2,939	1,915	26	13	1,954
	Visual design	3,587	24	7	3,618	3,221	17	0	3,238	2,065	14	0	2,079
	Digital/multimedia design	2,616	17	3	2,636	2,346	11	1	2,358	1,502	3	1	1,506
	Space design	3,281	29	7	3,317	2,852	20	7	2,879	1,932	14	6	1,952
	Fashion/textile design	4,094	26	8	4,128	3,681	12	8	3,701	2,474	5	6	2,485
	Service/experience design	484	23	5	512	430	17	1	448	306	12	1	319
	Industrial craft design	816	15	33	864	700	8	26	734	446	4	19	469
	Design infrastructure	556	29	0	585	499	22	0	521	365	16	0	381

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2019

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc. When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorship, Freelancers

12) During the period, the total number of graduates of nationwide Institutions of higher education is 555,808, the total number of employees is 332,839, and the employment rate is 67.7% (Office of education, 2019)

- The employment of graduates reached 66.2%, same as 2018. Regarding the rate by degree, bachelor's degree reached 66.0%, master's degree reached 72.1%, and doctor's degree reached 80.0%.

2) Status of graduates and employment of department of design

▼ Status of graduates and employment of department of design (Unit : Persons)

Classification	Status of Graduates and Employment		
	Graduates(A)	Employed(B)	Employment rate(C=B/A, %)
2019	18,404	12,178	66.2
2018	19,650	13,014	66.2
YoY	**▼ 1,246**	**▼ 836**	**0.0%p**
YoY(%)	**▼ 6.3%**	**▼6.4%**	

▼ Status of graduates and employment of department of design by university type (Unit : Persons)

Classification		Status of Graduates and Employment											
		Graduates(A)				Employed(B)				Employment rate(C=B/A, %)			
		bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total
Total		**18,015**	**294**	**95**	**18,404**	**11,890**	**212**	**76**	**12,178**	**66.0**	**72.1**	**80.0**	**66.2**
University type	Junior college	7,404	-	-	7,404	5,063	-	-	5,063	68.4	-	-	68.4
	University	9,864	-	-	9,864	6,238	-	-	6,238	63.2	-	-	63.2
	Industrial college	104	-	-	104	74	-	-	74	71.2	-	-	71.2
	University(college)	12	-	-	12	9	-	-	9	75.0	-	-	75.0
	Graduate college	-	294	95	389	-	212	76	288	-	72.1	80.0	74.0
	Functional college	631	-	-	631	506	-	-	506	80.2	-	-	80.2
Major	General design	1,395	158	33	1,586	885	118	30	1,033	63.4	74.7	90.9	65.1
	Product design	2,891	29	19	2,939	1,915	26	13	1,954	66.2	89.7	68.4	66.5
	Visual design	3,221	17	0	3,238	2,065	14	0	2,079	64.1	82.4	0.0	64.2
	Digital/multimedia design	2,346	11	1	2,358	1,502	3	1	1,506	64.0	27.3	100.0	63.9
	Space design	2,852	20	7	2,879	1,932	14	6	1,952	67.7	70.0	85.7	67.8
	Fashion/textile design	3,681	12	8	3,701	2,474	5	6	2,485	67.2	41.7	75.0	67.1
	Service/experience design	430	17	1	448	306	12	1	319	71.2	70.6	100.0	71.2
	Industrial craft design	700	8	26	734	446	4	19	469	63.7	50.0	73.1	63.9
	Design infrastructure	499	22	0	521	365	16	0	381	73.1	72.7	0.0	73.1

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2019

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc. When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employment rate: Employed/{Graduates-(Advanced+Enlisted+Unable to work+Excluder+Foreign students)}*100

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorship, Freelancers

PART Ⅱ

Survey Results

2020 KOREA DESIGN STATISTICAL DATA

01

Companies Utilizing Design

2020 KOREA DESIGN STATISTICAL DATA

01 Status of Design Utilization

1. Design Utilization Rate

- The design utilization rate of companies in general under special design classification reached 37.1%.
- Seoul is the highest with 45.0%, followed by Daejeon(38.7%), Daegu(37.8%), etc.

▼ Changes in the design utilization rate by region (Unit : %)

Classification		2018	2019	YoY
Total		**35.9**	**37.1**	**▲1.1%p**
Region	Seoul	41.3	45.0	▲3.7%p
	Incheon	31.6	35.0	▲3.4%p
	Gyeonggi	35.1	34.1	▼1.0%p
	Busan	35.1	36.6	▲1.5%p
	Ulsan	32.2	34.6	▲2.4%p
	Gyeongnam	29.0	30.6	▲1.6%p
	Daegu	34.2	37.8	▲3.6%p
	Gyeongbuk	32.6	34.5	▲1.9%p
	Gwangju	43.9	34.8	▼9.1%p
	Jeolla	35.6	37.5	▲1.9%p
	Daejeon	39.1	38.7	▼0.4%p
	Chungcheong	32.7	30.7	▼2.0%p
	Gangwon	31.2	35.1	▲3.9%p
	Jeju	32.6	34.3	▲1.7%p

* Calculation of design utilization rate excludes specialized design companies.

▼ Changes in the design utilization rate by business and scale (Unit : Number, %)

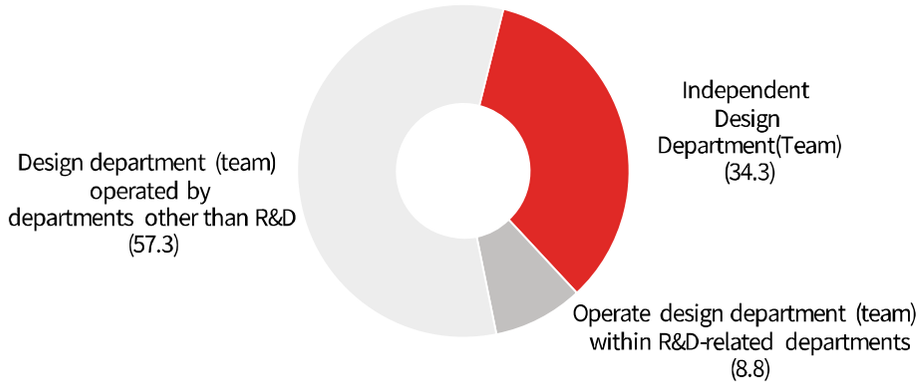
Classification		2018			2019		
		No. of companies		Utilization rate of design	No. of companies		Utilization rate of design
		Special Design Classification	Companies utilizing design		Special Design Classification	Companies utilizing design	
Busi-ness Type	Product design	54,176	14,495	26.8	54,616	17,069	31.3
	Visual design	20,473	10,123	49.4	21,143	9,963	47.1
	Digital/multimedia design	7,536	4,586	60.9	7,752	4,470	57.7
	Space design	79,385	23,569	29.7	83,067	25,704	30.9
	Fashion/textile design	13,748	5,217	37.9	13,136	5,055	38.5
	Service/experience design	72,785	27,707	38.1	75,731	29,372	38.8
	Industrial craft design	19,301	5,109	26.5	19,410	5,038	26.0
	Design infrastructure (design-based technology)	103,466	42,409	41.0	108,293	45,300	41.8
Busi-ness Scale	Small companies	305,595	106,925	35.0	307,796	109,930	35.7
	Medium companies	53,447	20,723	38.8	63,667	26,432	41.5
	Midsize companies	8,857	4,129	46.6	8,558	4,022	47.0
	Large companies	2,970	1,439	48.5	3,127	1,588	50.8
Total		**370,870**	**133,216**	**35.9**	**383,148**	**141,971**	**37.1**

※ Design utilization of industrywide companies that have five or more employees reached 17.2%.
141,971 (No. of companies utilizing design) / 827,526 (Industrywide companies that have five or more employees) = 17.2%

2. Form of Design Department

- Regarding the form of design department of company utilizing design, the percentage of companies with 'Independent Design Department(Team)' reached 34.3%,
  followed by 'Operate design department (team) within R&D-related departments(8.8%), 'Design department (team) operated by departments other than R&D'(57.3%).

▼ Form of Design Department (Base : companies with design department, multiple responses, Unit : %)



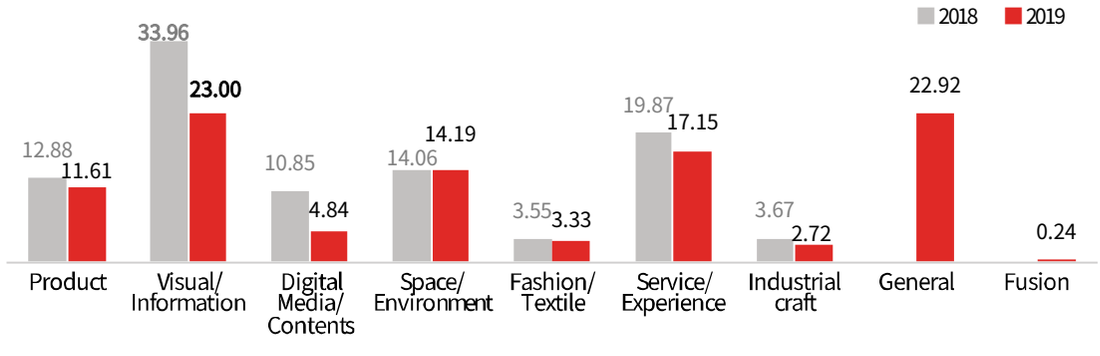
▼ Form of Design Department by business scale (Base : companies with design department, multiple responses, Unit : %)

Classification		Independent Design Department(Team)	Operate design department (team) within R&D-related departments	Design department (team) operated by departments other than R&D
Total		**34.3**	**8.8**	**57.3**
Busi -ness Scale	Large companies	33.9	34.7	63.9
	Midsize companies	35.9	8.1	56.0
	Medium companies	32.2	12.5	55.5
	Small companies	35.7	5.8	58.5

3. Fields of design utilization

- Among the fields of design mainly used by companies that utilize design (multiple responses allowed), 'Visual/Information Design' accounted for the highest proportion with 23.00%,
  followed by 'General Design'(22.92%), 'Service/Experience Design'(17.15%), 'Space/Environment design'(14.19%), etc.

▼ Fields of design utilization (Unit : %)



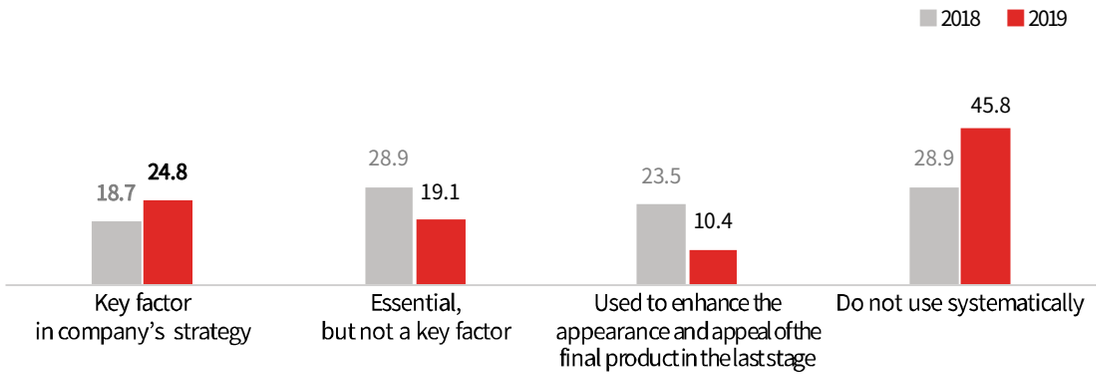
▼ Fields of design utilization by business scale (Unit : %)

Classification		Product	Visual/ Information	Digital Media/ Contents	Space/ Environment	Fashion/ Textile	Service/ Experience	Industrial craft	General	Fusion
Total		**11.61**	**23.00**	**4.84**	**14.19**	**3.33**	**17.15**	**2.72**	**22.92**	**0.24**
Business Scale	Large companies	5.52	21.13	1.39	13.27	0.53	41.69	1.15	15.12	0.20
	Midsize companies	13.42	36.17	5.20	10.90	1.61	15.31	2.42	14.97	0.00
	Medium companies	12.42	19.98	5.74	18.68	2.72	8.98	2.61	28.85	0.02
	Small companies	11.44	23.62	4.64	13.11	3.53	19.00	2.77	21.60	0.30

4. Design utilization stage

- Regarding the design utilization progress of companies utilizing design, ‘Do not use systematically’ accounted for the highest proportion with 45.8%, followed by ‘Key factor in company's strategy’(24.8%), ‘Essential, but not a key factor’(19.1%), ‘Used to enhance the appearance and appeal of the final product in the last stage’(10.4%).

▼ Design utilization stage (Unit : %)



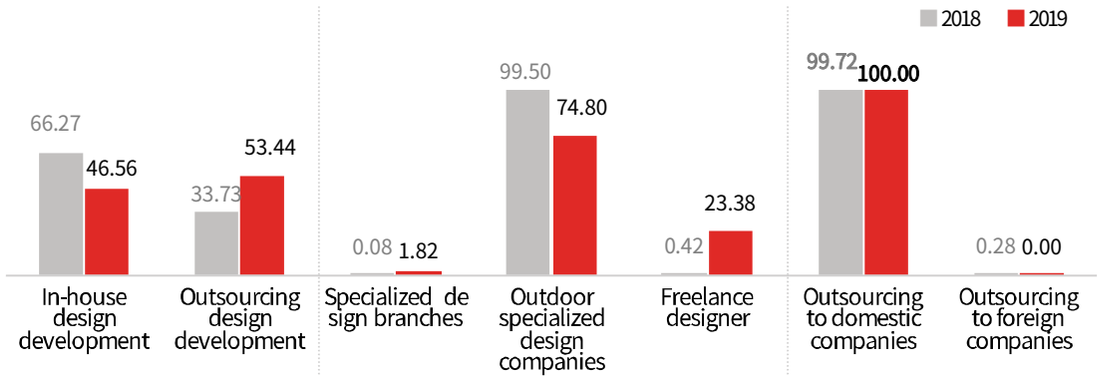
▼ Design utilization stage by business scale (Unit : %)

Classification		Key factor in company’s strategy	Essential, but not a key factor	Used to enhance the appearance and appeal of the final product in the last stage	Do not use systematically
Total		**24.8**	**19.1**	**10.4**	**45.8**
Business Scale	Large companies	15.5	30.6	10.5	43.4
	Midsize companies	13.5	23.2	31.9	31.4
	Medium companies	33.8	17.6	14.1	34.6
	Small companies	22.8	19.3	9.1	48.8

5-1. Proportion of in-house/external manpower utilization in design development (in terms of the numbers)

- Looking into the proportion of design development in terms of the numbers, the average percentage of 'in-house design development' is 46.56%, and 'outsourcing design development' is 53.44%. In the case of 'outsourcing design development', 'outsourcing to domestic companies'(100.00%) has a high proportion.

▼ Proportion of in-house/external manpower utilization in design development (in terms of the numbers) (Unit : %)

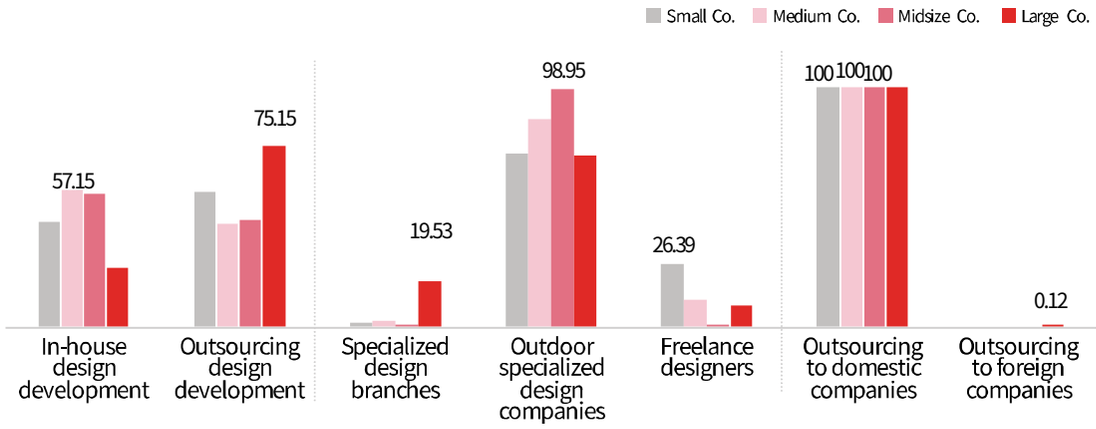


▼ Proportion of in-house/external manpower utilization in design development by business type and scale (in terms of the numbers) (Unit : %)

Classification		In-house/External		Outsourcing type			Domestic/Foreign	
		In-house design development	Outsourcing design development	Specialized design branches	Outdoor specialized design companies	Freelance designer	Outsourcing to domestic companies	Outsourcing to foreign companies
Total		**46.56**	**53.44**	**1.82**	**74.80**	**23.38**	**100.00**	**0.00**
Busi-ness Type	Product design	59.79	40.21	2.05	89.94	8.01	99.99	0.01
	Visual design	68.55	31.45	3.21	89.33	7.46	100.00	0.00
	Digital/multimedia design	73.92	26.08	10.45	64.54	25.01	100.00	0.00
	Space design	46.71	53.29	0.77	85.15	14.08	100.00	0.00
	Fashion/textile design	76.60	23.40	0.00	87.22	12.78	100.00	0.00
	Service/experience design	29.96	70.04	1.82	68.75	29.44	100.00	0.00
	Industrial craft design	65.47	34.53	0.33	97.17	2.50	100.00	0.00
	Design infrastructure (design-based technology)	39.27	60.73	1.87	66.37	31.76	100.00	0.00
Busi-ness Scale	Large companies	24.85	75.15	19.53	71.64	8.82	99.88	0.12
	Midsize companies	55.25	44.75	0.60	98.95	0.46	100.00	0.00
	Medium companies	57.15	42.85	2.31	86.35	11.33	100.00	0.00
	Small companies	43.97	56.03	1.52	72.09	26.39	100.00	0.00

▼ Proportion of in-house/external manpower utilization in design development by business and scale (in terms of the numbers)

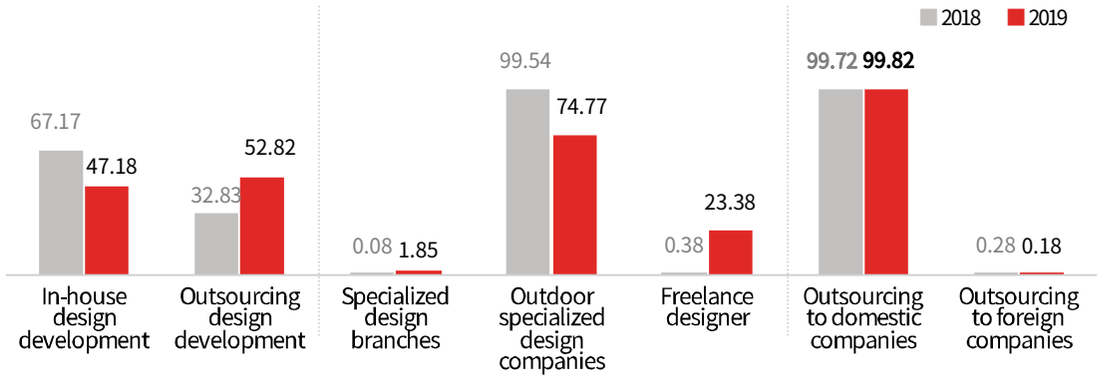
(Unit : %)



5-2. Proportion of in-house/external manpower utilization in design development (in terms of cost)

- Looking into the proportion of design development in terms of cost, the average percentage of 'in-house design development' reached 47.18%, and 'Outsourcing design development' is 52.82%. In case of 'Outsourcing', 'Outsourcing to domestic companies'(99.82%) account for a large proportion.

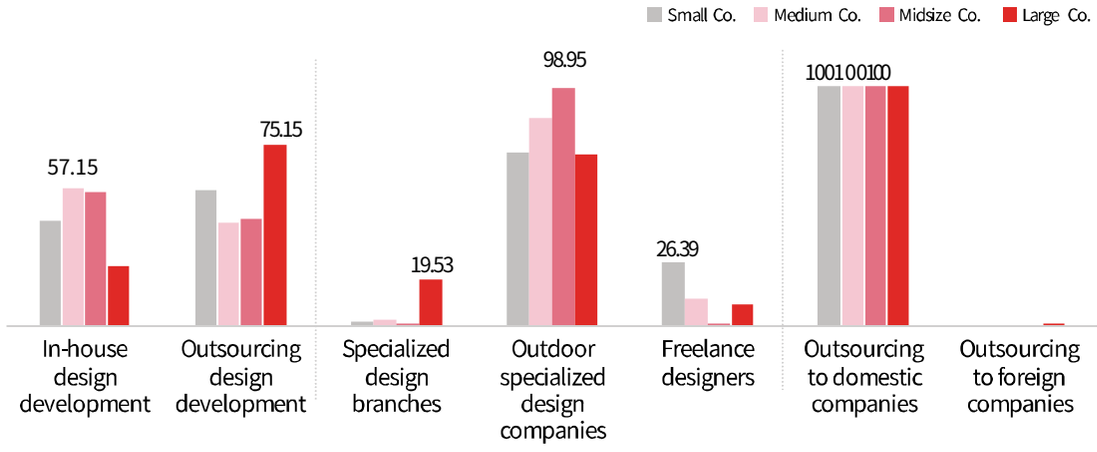
▼ Proportion of in-house/external manpower utilization in design development (in terms of cost) (Unit : %)



▼ Proportion of in-house/external manpower utilization in design development (in terms of cost) by business type and scale (Unit : %)

Classification		In-house/External		Outsourcing type			Domestic/Foreign	
		In-house design development	Outsourcing design development	Specialized design branches	Outdoor specialized design companies	Freelance designer	Outsourcing to domestic companies	Outsourcing to foreign companies
Total		**47.18**	**52.82**	**1.85**	**74.77**	**23.38**	**99.82**	**0.18**
Busi-ness Type	Product design	60.02	39.98	1.90	90.09	8.01	99.99	0.01
	Visual design	69.42	30.58	3.21	89.33	7.46	100.00	0.00
	Digital/multimedia design	74.18	25.82	10.45	64.54	25.01	100.00	0.00
	Space design	47.18	52.82	0.77	85.15	14.08	100.00	0.00
	Fashion/textile design	77.93	22.07	0.00	87.22	12.78	100.00	0.00
	Service/experience design	30.99	69.01	2.01	68.56	29.44	100.00	0.00
	Industrial craft design	69.32	30.68	0.33	97.17	2.50	100.00	0.00
	Design infrastructure (design-based technology)	39.38	60.62	1.87	66.37	31.76	99.49	0.51
Busi-ness Scale	Large companies	24.95	75.05	19.53	71.64	8.82	99.88	0.12
	Midsize companies	59.80	40.20	0.60	98.95	0.46	100.00	0.00
	Medium companies	58.20	41.80	2.31	86.35	11.33	98.93	1.07
	Small companies	44.43	55.57	1.57	72.04	26.39	100.00	0.00

▼ Proportion of in-house/external manpower utilization in design development (in terms of cost) by business scale **(Unit : %)**



02 Design Investment

1. 2019 Status of finance and design investment

- In 2019, the average sales of companies utilizing design reached 24,710.04 million KRW (24,740.03 million KRW in 2018), the average personnel expenses is 2,366.23 million KRW(1,802.75 in 2018), the average R&D expenses is 1,265.70 million KRW (1,111.62 in 2018), the average business profit is 1,648.40 million KRW (2,379.35 million KRW in 2018), and the average design investment is 95.96 million KRW (95.77 million KRW in 2018).

▼ Finance and design investment by year (Unit : Million KRW)

Classification	2014	2015	2016	2017	2018	2019	YoY	
							Sum	Proportion
Average sales	35,254	22,183	21,574	21,651	24,740	24,710	▼ 30	▼ 0.1
Average personnel expenses	3,949	1,461	1,097	1,894	1,803	2,366	▲ 563	▲ 23.8
Average R&D expenses	2,977	2,049	1,213	820	1,113	1,266	▲ 153	▲ 12.1
Average business profits	3,688	1,384	1,747	2,511	2,379	1,648	▼ 731	▼ 44.4
Average design investment	134	131	116	99	96	96	0	-

▼ Finance and design investment by business type and scale (Unit : Million KRW)

Classification		Sales	Personnel expenses	R&D expenses	business profits	Design investment
Total		**24,710**	**2,366**	**1,266**	**1,648**	**96**
Busi-ness Type	Product design	131,659	10,108	9,082	8,120	169
	Visual design	7,681	1,621	143	486	162
	Digital/multimedia design	5,335	1,017	136	350	163
	Space design	14,341	1,438	374	923	91
	Fashion/textile design	5,325	608	114	284	111
	Service/experience design	11,099	1,493	186	1,484	83
	Industrial craft design	6,610	600	310	245	56
	Design infrastructure (design-based technology)	8,953	1,232	120	420	62
Busi-ness Scale	Large companies	2,256,181	157,233	144,468	157,801	1,277
	Midsize companies	242,211	20,313	7,297	19,660	731
	Medium companies	17,190	2,750	447	735	153
	Small companies	2,475	556	27	154	62

2. Details of design investment

- Concerning the details of design investment, personnel expenses for designers has the largest part with 80.03 million KRW, followed by design service charge with 10.78 million KRW.

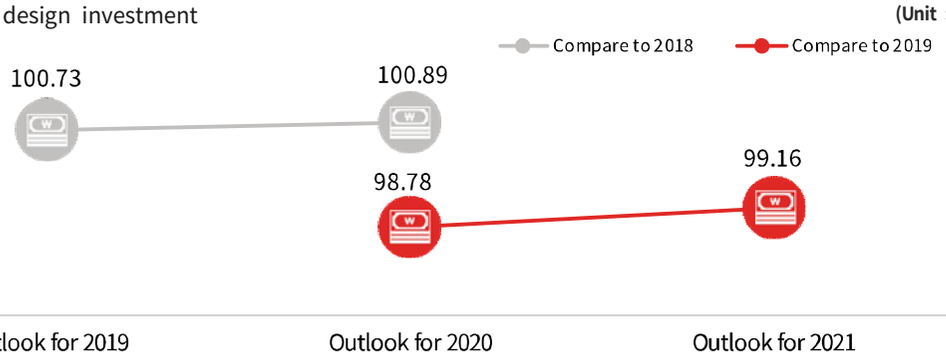
▼ Details of design investment by business type and scale (Unit : Million KRW)

Classification		Personnel expenses for designers	Design service charges			Design machines/ devices and software expenses	Expenses for land/bldg for design R&D	Design/ Designer Educatio-nal Fee	Expenses for purchase/ manage -ment of IPRs in design	Other design -related operating costs
			Total	Specia -lized companies	Others					
Total		**80.03**	**10.78**	**5.74**	**5.04**	**0.88**	**0.00**	**0.37**	**0.13**	**3.78**
Busi -ness Type	Product design	144.92	14.03	2.95	11.08	2.32	0.00	0.75	0.17	6.48
	Visual design	131.25	23.65	4.90	18.75	0.96	0.00	0.58	0.23	5.20
	Digital/multimedia design	126.97	28.79	22.87	5.92	2.64	0.00	0.94	0.11	3.34
	Space design	78.53	7.55	6.56	0.99	0.67	0.00	0.57	0.15	3.03
	Fashion/textile design	103.44	3.85	1.58	2.27	0.79	0.00	0.44	0.08	2.55
	Service/experience design	69.83	7.86	4.59	3.27	0.48	0.00	0.12	0.08	4.62
	Industrial craft design	49.46	4.21	4.02	0.19	0.47	0.00	0.08	0.01	1.79
	Design infrastructure (design-based technology)	47.93	10.17	6.21	3.95	0.57	0.00	0.18	0.12	2.72
Busi -ness Scale	Large companies	1,167.02	30.65	16.34	14.30	3.10	0.00	1.94	0.00	74.52
	Midsize companies	683.00	32.65	25.52	7.13	5.30	0.08	2.69	0.56	7.14
	Medium companies	124.58	20.08	11.52	8.56	2.23	0.00	0.86	0.32	5.39
	Small companies	50.50	7.94	3.91	4.03	0.46	0.00	0.20	0.07	2.65

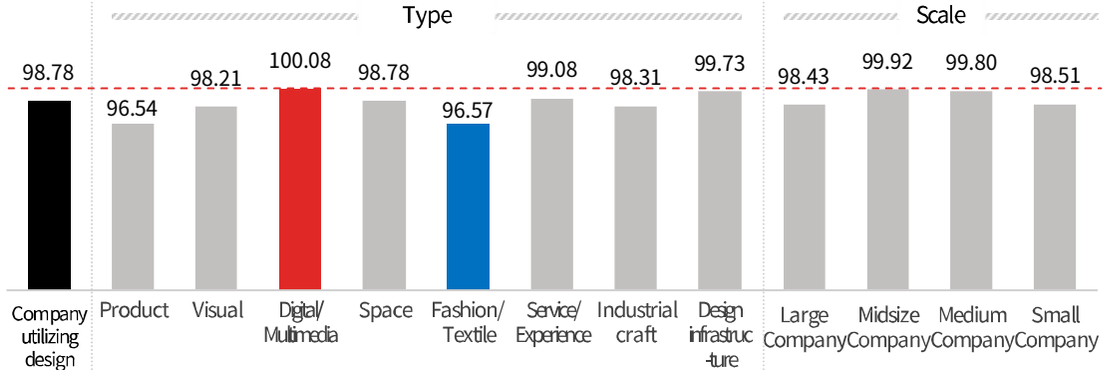
3-1. Outlook for design investment

- Compared to 2019, average outlook for 2020 design investment[13] reached 98.78%, average outlook for 2021 design investment reached 99.16%.

▼ Outlook for design investment (Unit : %)

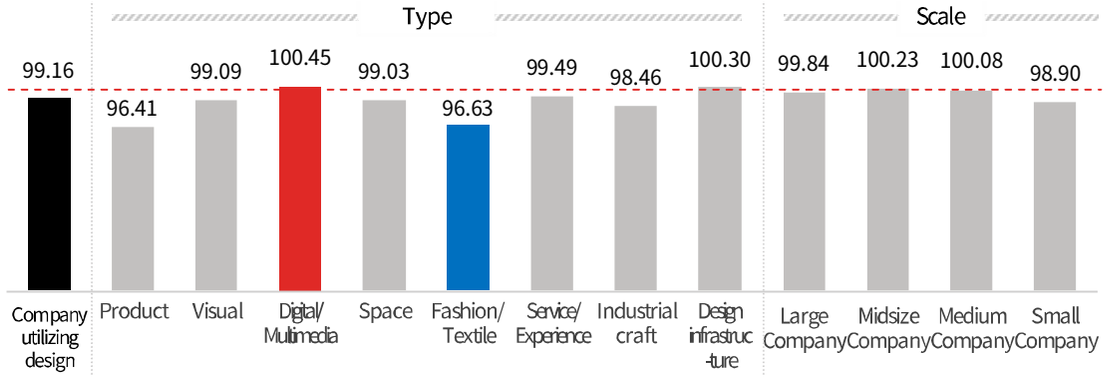


▼ Outlook for 2020 design investment by business type and scale (Unit : %)



13) 2020/2021 Outlook : The same amount as 2019 is shown as 100%, while an increase from 2019 is shown as above 100% and decrease from 2019 is shown as less than 100%. For example, if the amount is half that of 2019, it is shown as 50%, and if it is twice as much as that of 2019, it is shown as 200%

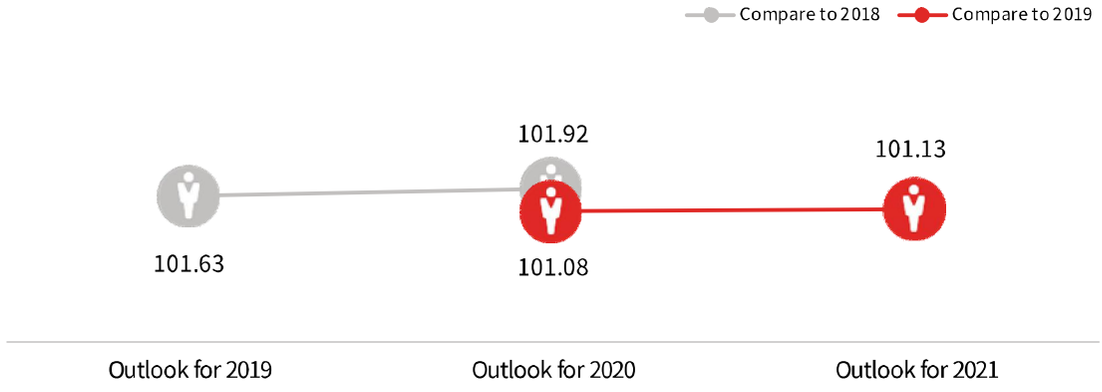
▼ Outlook for 2021 design investment by business type and scale (Unit : %)



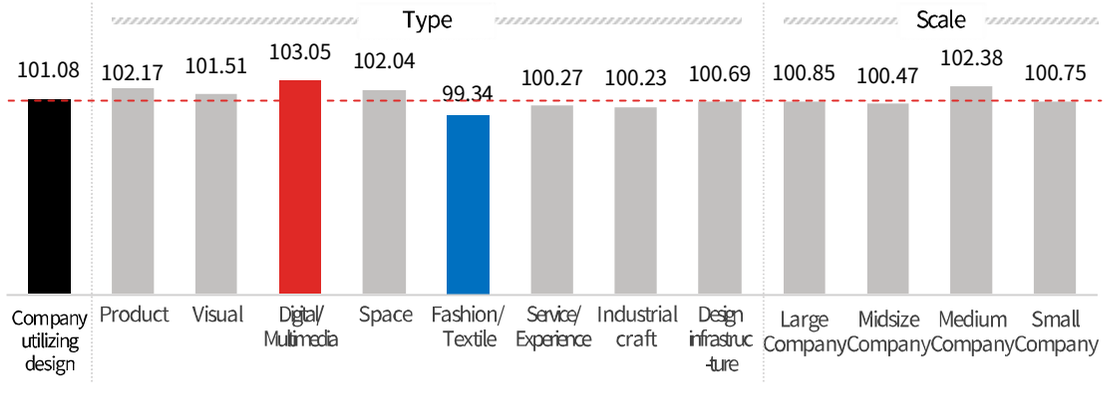
3-2. Outlook for designer employment

- Compared to 2019, average outlook for the 2020 designer employment reached 101.92%, average outlook for the 2021 designer employment reached 101.13%.

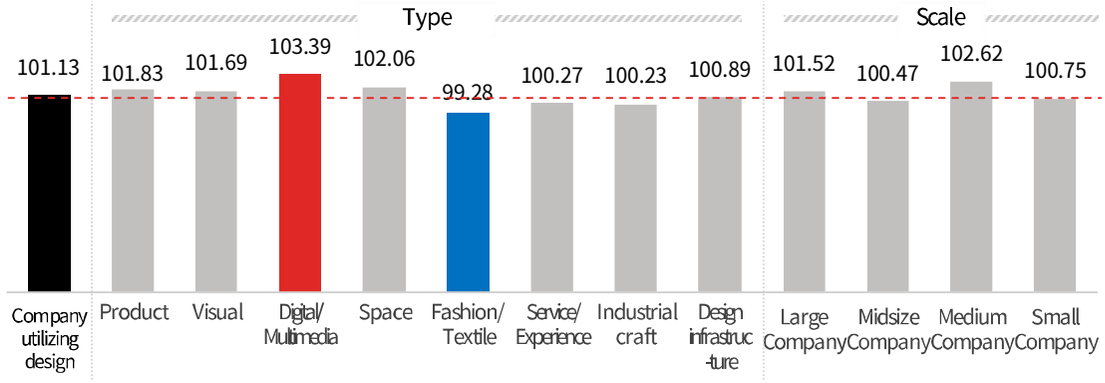
▼ Outlook for designer employment (Unit : %)



▼ Outlook for 2020 designer employment by business type and scale (Unit : %)



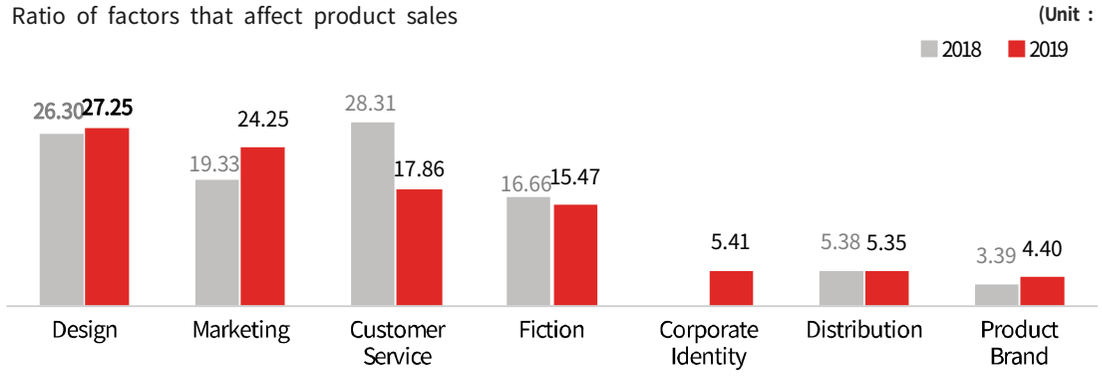
▼ Outlook for 2021 designer employment by business type and scale (Unit : %)



4. Ratio of factors that affect product sales

- Concerning factors that affect product sales,
  'Design' has the largest proportion with 27.25%, followed by 'Marketing'(24.25%), 'Customer Service'(17.86%), 'Function'(15.47%), etc.

▼ Ratio of factors that affect product sales (Unit : %)



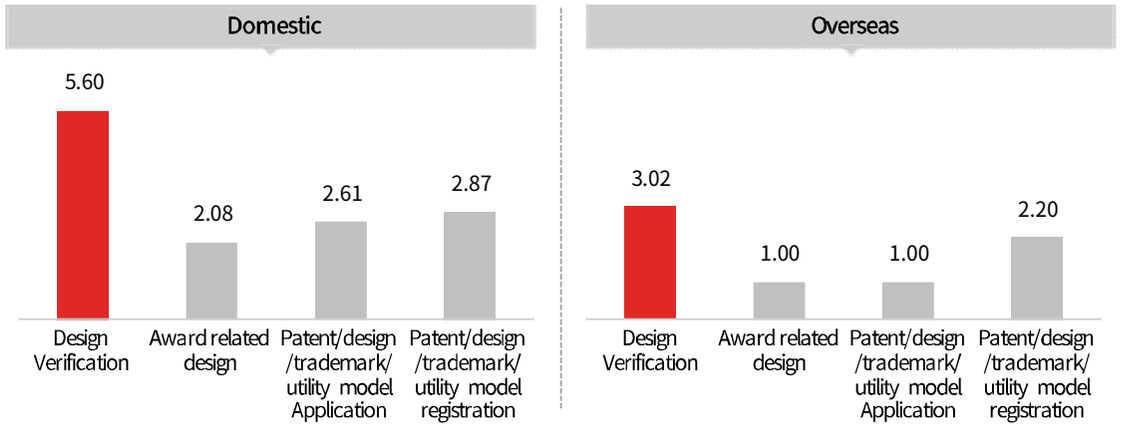
▼ Ratio of factors that affect product sales by business type and scale (Unit : %)

Classification		Design	Marketing	Customer Service	Fiction	Corporate Identity	Distribution	Product Brand
Total		**27.25**	**24.25**	**17.86**	**15.47**	**5.41**	**5.35**	**4.40**
Busi -ness Type	Product design	28.84	18.79	6.86	27.17	5.00	5.76	7.57
	Visual design	27.16	22.13	13.10	12.04	5.37	8.12	12.08
	Digital/multimedia design	29.75	23.95	13.47	18.63	4.90	6.19	3.10
	Space design	30.43	21.02	14.91	20.66	6.05	3.49	3.44
	Fashion/textile design	30.02	23.33	16.56	12.02	4.03	6.78	7.27
	Service/experience design	26.17	15.39	38.44	7.08	6.70	1.41	4.82
	Industrial craft design	26.52	26.30	9.05	19.87	5.93	6.17	6.16
	Design infrastructure (design-based technology)	25.10	34.27	12.94	13.89	4.52	7.87	1.41
Busi -ness Scale	Large companies	20.70	17.33	32.96	9.90	14.65	1.42	3.03
	Midsize companies	29.25	9.97	17.86	24.21	8.12	4.17	6.43
	Medium companies	27.88	18.34	15.96	20.11	5.85	7.44	4.43
	Small companies	27.13	26.01	18.20	14.23	5.17	4.88	4.39

5. Design verification / Award and Application / Registration

- Concerning Design verification/Award and Application/Registration of companies utilizing design, 'Design Verification' (5.60 and 3.02 respectively) was high in both domestic and overseas.

▼ Design verification / Award and Application / Registration (Unit : Case)



▼ Design verification / Award and Application / Registration by business type and scale (Unit : Case)

Classification		Domestic				Overseas			
		Design Verification	Award related design	Patent/ design/ trademark/ utility model Application	Patent/ design/ trademark/ utility model registration	Design Verification	Award related design	Patent/ design/ trademark/ utility model Application	Patent/ design/ trademark/ utility model registration
Total		**5.60**	**2.08**	**2.61**	**2.87**	**3.02**	**1.00**	**1.00**	**2.20**
Busi -ness Type	Product design	4.73	2.34	1.26	3.43	3.29	1.00	-	2.20
	Visual design	2.00	-	1.00	2.40	-	-	-	-
	Digital/multimedia design	4.26	-	1.39	5.00	-	-	-	-
	Space design	9.10	1.82	3.07	3.15	-	-	-	-
	Fashion/textile design	3.66	1.25	-	1.09	1.00	-	1.00	-
	Service/experience design	5.64	2.15	-	1.94	-	-	-	-
	Industrial craft design	3.12	3.00	-	2.46	2.00	-	-	-
	Design infrastructure (design-based technology)	-	-	-	2.79	-	-	-	-
Busi -ness Scale	Large companies	6.00	-	-	-	-	-	-	-
	Midsize companies	3.69	2.00	-	4.87	-	1.00	-	-
	Medium companies	6.44	2.05	3.59	3.86	2.21	-	-	2.20
	Small companies	5.31	2.08	1.67	2.53	3.44	-	1.00	-

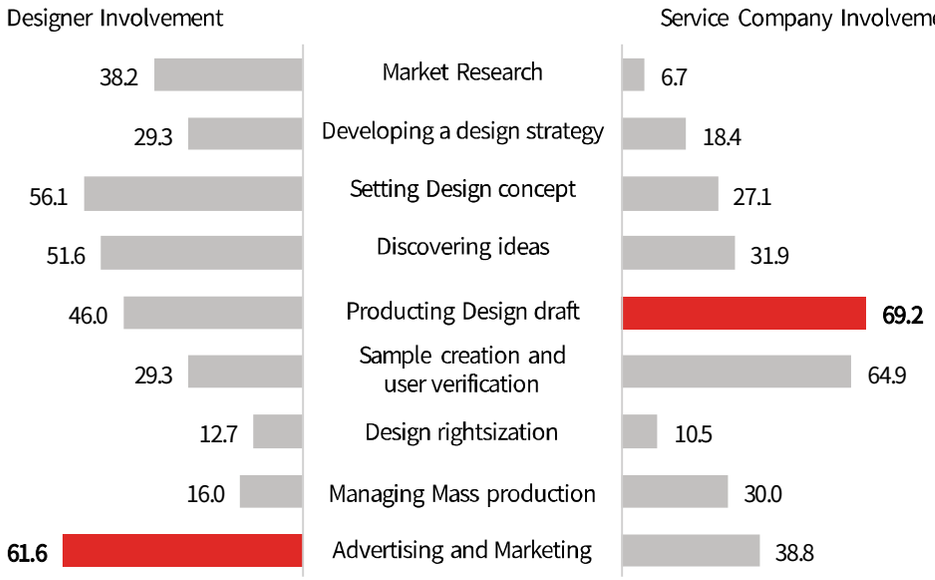
03 Design Competency

1. Involvement of designer/service companies in the development process

- In the process of development of new products by companies that utilize design, the stage in which designers got involved (multiple responses allowed) most frequently is 'Advertising and marketing'(61.6%), followed by 'Setting Design concept'(56.1%), 'Discovering ideas'(51.6%), 'Producting Design draft'(46.0%), etc.
- In the process of development of new products, regarding the stage in which service companies got involved (multiple responses allowed), 'Producting Design draft'(69.2%), 'Sample creation and user verification'(64.9%), 'Advertising and Marketing'(38.8), etc.

▼ Involvement of designer/service companies in the development process

(Base : companies hiring designers and service companies, multiple responses, Unit : %)



▼ Involvement of designer/service companies in the development process by business type and scale

(Base : companies hiring designers, multiple responses, Unit : %)

Classification		Market Research	Developing design strategy	Setting design concept	Discovering ideas	Producing design draft	sample creation and user verification	Design rightsization	managing mass production	advertising and marketing
Total		**38.2**	**29.3**	**56.1**	**51.6**	**46.0**	**29.3**	**12.7**	**16.0**	**61.6**
Busi-ness Type	Product design	48.6	27.3	52.4	51.3	60.0	41.5	11.1	30.5	55.9
	Visual design	58.4	36.5	59.4	57.6	66.9	47.3	20.7	27.0	45.5
	Digital/multimedia design	54.1	38.5	43.0	63.2	41.7	16.3	4.2	12.2	66.5
	Space design	41.4	41.7	70.2	55.8	56.9	43.0	21.6	21.8	50.2
	Fashion/textile design	58.3	23.2	45.5	60.9	80.8	60.5	11.9	19.3	38.9
	Service/experience design	24.1	21.6	57.3	58.1	33.2	13.5	3.1	2.4	62.3
	Industrial craft design	49.6	25.2	54.3	42.7	69.4	66.2	26.7	23.8	53.8
	Design infrastructure (design-based technology)	31.0	27.1	52.2	43.2	32.0	16.7	12.1	12.7	75.5
Busi-ness Scale	Large companies	68.3	41.0	58.4	59.9	41.1	13.0	7.7	9.8	44.9
	Midsize companies	59.9	32.6	66.7	53.7	66.8	50.0	20.2	14.1	35.8
	Medium companies	46.5	28.9	58.4	55.7	56.3	35.4	14.6	20.1	60.0
	Small companies	35.6	29.4	55.4	50.5	43.1	27.5	12.1	15.1	62.4

▼ Involvement of service companies in the development process by business type and scale

(Base : companies hiring service companies, multiple responses, Unit : %)

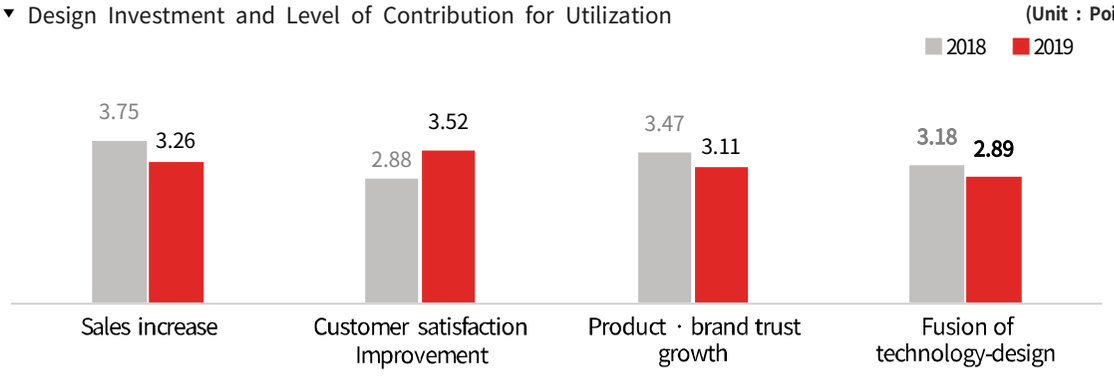
Classification		Market Research	Developing design strategy	Setting design concept	Discovering ideas	Producing design draft	sample creation and user verification	Design rightsization	managing mass production	advertising and marketing
Total		**6.7**	**18.4**	**27.1**	**31.9**	**69.2**	**64.9**	**10.5**	**30.0**	**38.8**
Business Type	Product design	8.5	15.1	34.0	33.9	50.0	48.3	11.7	12.1	56.8
	Visual design	5.0	9.0	20.8	26.5	69.3	63.5	9.3	16.8	36.4
	Digital/multimedia design	3.1	8.2	22.3	46.3	73.6	55.5	20.7	29.7	33.3
	Space design	9.8	16.8	28.8	34.6	61.3	55.8	13.7	25.5	49.4
	Fashion/textile design	6.8	7.1	39.5	17.2	59.8	71.9	1.2	8.0	40.8
	Service/experience design	7.1	20.4	29.5	30.8	73.4	62.5	8.7	34.9	34.8
	Industrial craft design	8.2	27.5	24.3	36.1	88.0	85.7	13.7	9.7	39.0
	Design infrastructure (design-based technology)	4.6	20.4	23.3	31.2	74.2	74.5	9.6	37.6	32.1
Business Scale	Large companies	25.0	12.3	15.8	35.4	43.2	25.5	12.3	9.6	73.8
	Midsize companies	2.9	13.1	10.9	21.3	71.6	43.8	2.1	1.4	68.4
	Medium companies	10.8	24.5	28.1	36.4	64.1	63.8	9.6	19.9	43.8
	Small companies	5.6	17.3	27.2	31.0	70.5	65.8	10.7	32.7	37.0

2. Design Investment and Level of Contribution for Utilization

- As a result of looking into the Design Investment and Level of Contribution for Utilization in Companies Utilizing Design(5-point scale), it presented as ‘Customer satisfaction Improvement’ (3.52 points), ‘Sales increase’(3.26 points), ‘Product·brand trust growth’(3.11 points), ‘fusion of technology-design’(2.89 points).

▼ Design Investment and Level of Contribution for Utilization

(Unit : Point)



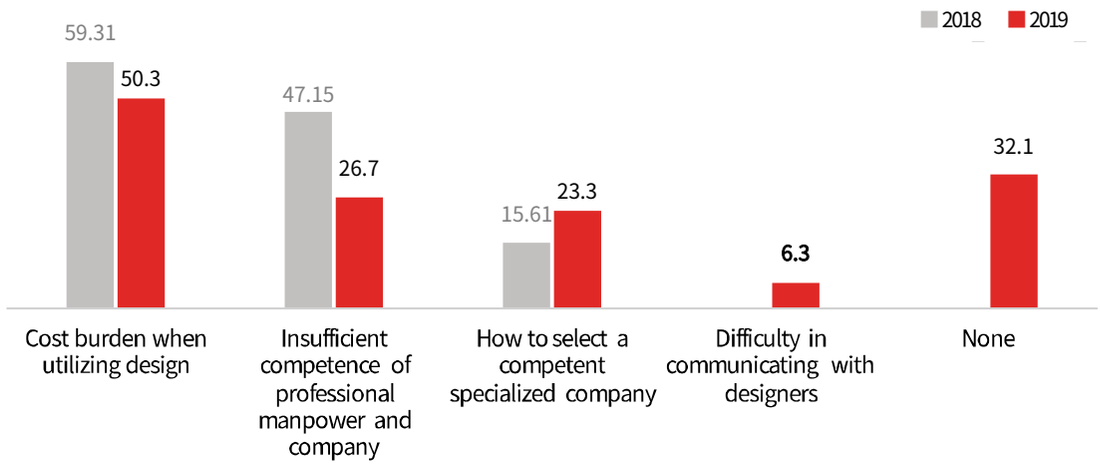
▼ Design Investment and Level of Contribution for Utilization by business type and scale (Unit : point)

Classification		Sales increase	Customer satisfaction Improvement	Product · brand trust growth	Fusion of technology - design
Total		**3.26**	**3.52**	**3.11**	**2.89**
Business Type	Product design	3.92	3.74	3.48	3.17
	Visual design	3.83	3.85	3.47	3.26
	Digital/multimedia design	4.18	3.88	3.54	3.24
	Space design	3.41	3.44	3.17	3.04
	Fashion/textile design	3.94	3.92	3.68	3.30
	Service/experience design	2.56	3.34	2.66	2.48
	Industrial craft design	3.95	4.04	3.65	3.34
	Design infrastructure (design-based technology)	3.01	3.39	3.00	2.76
Business Scale	Large companies	3.29	3.25	3.12	3.09
	Midsize companies	3.58	3.78	3.40	2.88
	Medium companies	3.63	3.72	3.36	3.02
	Small companies	3.16	3.47	3.05	2.86

3. Difficulties in utilizing design

- Regarding difficulties in utilizing design, 'Cost burden when utilizing design'(50.3%), 'Insufficient competence of professional manpower and company'(26.7%), 'How to select a competent specialized company'(23.3%), 'Difficulty in communicating with designers'(6.3%).

▼ Difficulties in utilizing design(multiple responses allowed) **(multiple responses, Unit : %)**



▼ Difficulties in utilizing design(1st priority) **(1st priority, Unit : %)**

Classification	Cost burden when utilizing design	Insufficient competence of professional manpower and company	How to select a competent specialized company	Difficulty in communicating with designers	None
2019	**40.6**	**13.0**	**11.6**	**2.8**	**32.1**
2018	43.9	8.3	20.8	-	-

▼ Difficulties in utilizing design by business type and scale **(multiple responses, Unit : %)**

Classification		Cost burden when utilizing design	Insufficient competence of professional manpower and company	How to select a competent specialized company	Difficulty in communicating with designers	None
Total		**50.3**	**26.7**	**23.3**	**6.3**	**32.1**
Busi-ness Type	Product design	76.5	26.8	23.8	3.3	12.9
	Visual design	79.1	43.1	20.2	9.9	9.6
	Digital/multimedia design	72.5	38.9	22.0	4.9	14.8
	Space design	62.6	26.8	30.9	6.6	23.2
	Fashion/textile design	84.7	42.0	11.4	2.9	11.1
	Service/experience design	41.5	16.9	21.6	6.0	47.3
	Industrial craft design	70.8	20.7	20.5	6.0	15.0
	Design infrastructure (design-based technology)	24.6	27.1	22.3	7.1	45.3
Busi-ness Scale	Large companies	51.6	31.9	4.4	1.2	42.0
	Midsize companies	66.5	31.1	30.4	4.2	11.5
	Medium companies	56.7	30.4	27.1	5.7	21.9
	Small companies	48.5	25.6	22.4	6.5	34.8

04 Status of Manpower

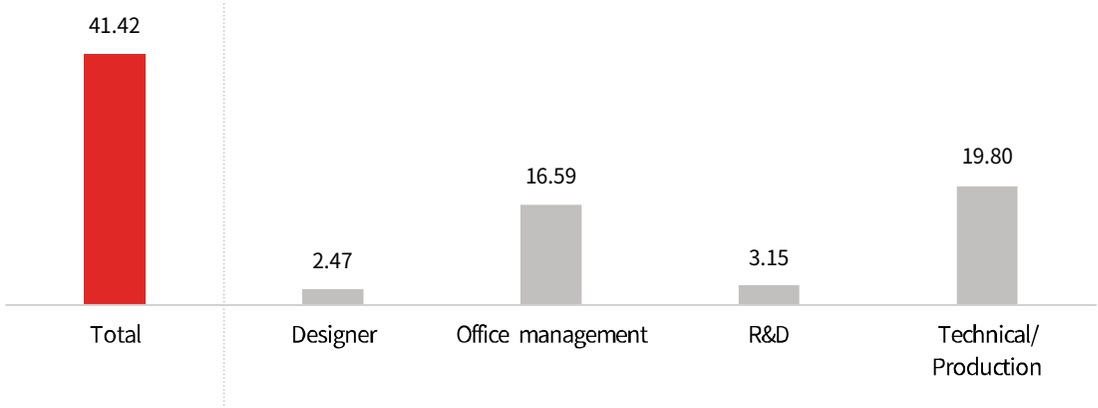
1. Status of employees

- The average number of employees in companies utilizing design is 41.42, up 8.88 compared to 2018(32.54).
- By job, the number of designers is 2.47, Office management is 16.59, R&D is 3.15 and Technical/Production is 19.80.

▼ Status of employees (Unit : Persons)

Classification	2014	2015	2016	2017	2018	2019	YoY
Avg no. of employees	52.08	37.78	34.43	28.96	32.54	41.42	▲ 8.88

▼ Status of employees by job (Unit : Person)



▼ Status of employees by job by business type and scale (Unit : Person)

Classification		Total	Designer	Office management	R&D	Technical/ Production
Total		**41.42**	**2.47**	**16.59**	**3.15**	**19.80**
Busi-ness Type	Product design	121.02	3.23	63.10	20.39	35.17
	Visual design	32.55	2.94	6.32	0.77	23.06
	Digital/multimedia design	23.22	3.31	10.33	3.07	6.74
	Space design	36.51	3.22	7.29	0.46	26.57
	Fashion/textile design	15.62	2.92	4.49	0.39	8.17
	Service/experience design	41.79	2.46	13.15	0.84	26.06
	Industrial craft design	16.52	1.79	3.79	0.45	10.77
	Design infrastructure (design-based technology)	23.37	1.67	12.23	0.82	8.99
Busi-ness Scale	Large companies	1,680.44	33.86	987.29	293.71	384.76
	Midsize companies	448.54	15.72	132.93	17.20	286.59
	Medium companies	66.75	3.63	22.49	2.55	38.91
	Small companies	14.04	1.83	4.31	0.35	8.00

2. Status of designers

- The average number of designers in companies utilizing design is 1.87 (1.96 in 2018) and 2.47 in companies employing designers (2.64 in 2018).
- Looking at the status of designers by position, 'staff' is the most with 0.87, followed by 'Assistant Manager' (0.65), 'Deputy manager/manager' (0.56), 'general manager' (0.26), 'Managing/ Executive director' (0.06) and 'President/Vice President' (0.07), etc.
- In terms of academic background and age, 'University graduate' is 1.99, and '30s' is 0.97, respectively.

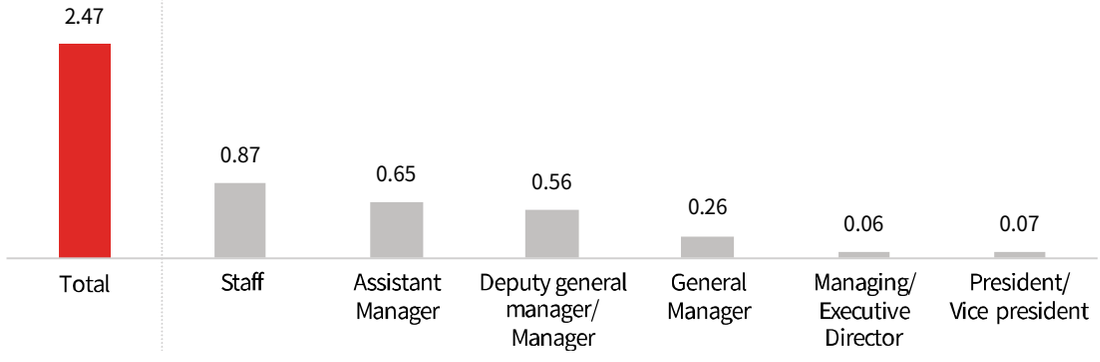
▼ Status of designers (Unit : Persons)

Classification		2014	2015	2016	2017	2018	2019	YoY
Avg no. of designers	companies utilizing design	2.64	2.47	2.16	2.04	1.96	1.87	▼ 0.09
	companies employing designers	3.74	3.93	3.62	3.05	2.64	2.47	▼ 0.17

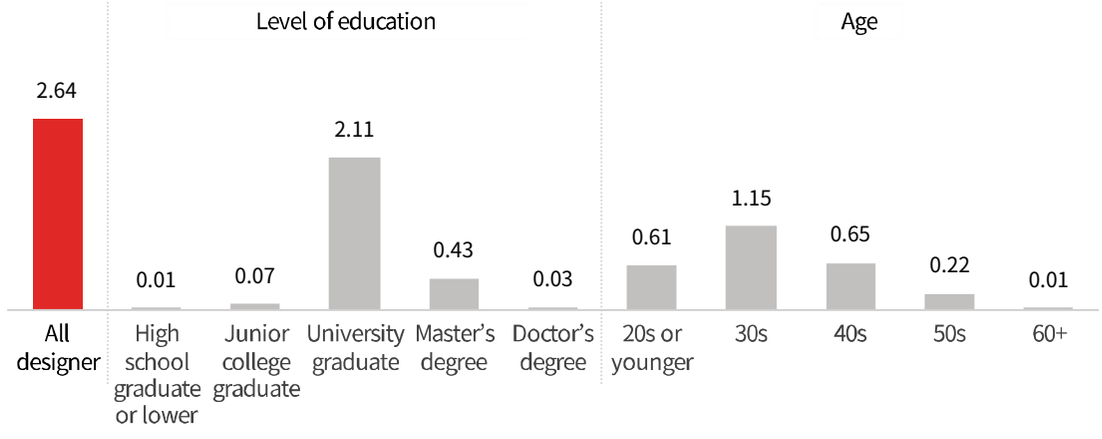
▼ Status of designers by businesss type and scale (Unit : Persons)

Classification		Average no. of designers (companies utilizing design)	Average no. of designers (companies employing designers)
Total		**1.87**	**2.47**
Busi -ness Type	Product design	2.36	3.23
	Visual design	2.40	2.94
	Digital/multimedia design	3.08	3.31
	Space design	2.19	3.22
	Fashion/textile design	2.56	2.92
	Service/experience design	1.74	2.46
	Industrial craft design	1.51	1.79
	Design infrastructure (design-based technology)	1.33	1.67
Busi -ness Scale	Large companies	14.68	33.86
	Midsize companies	11.82	15.72
	Medium companies	2.80	3.63
	Small companies	1.39	1.83

▼ The number of designers by job (Base : companies employing designers, Unit : persons)



▼ The number of designers by academic background and age (Base : companies employing designers, Unit : Persons)



▼ The number of designers by business scale (Base : companies employing designers, Unit : Persons)

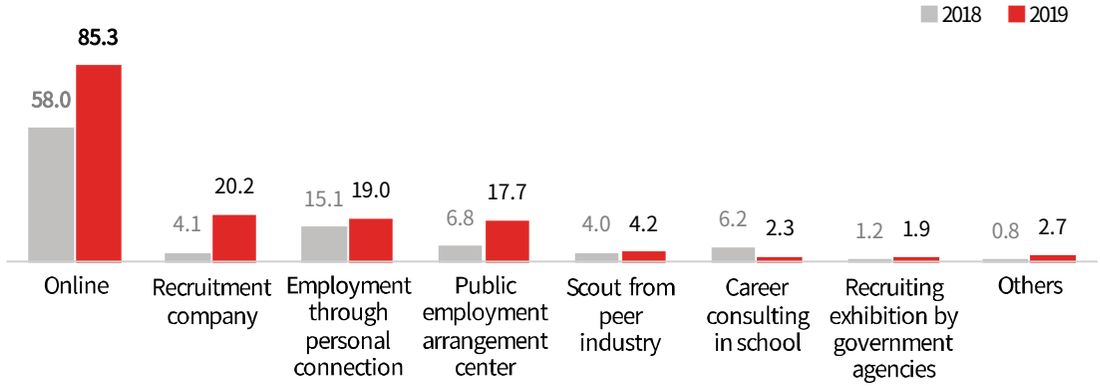
Classification		Product design	Visual design	Digital/ media design	Space design	Fashion/ textile design	Service/ experience design	Industrial craft design	Design infrastructure
Total		**19.46**	**37.38**	**2.82**	**28.28**	**9.92**	**0.80**	**0.53**	**0.71**
Busi -ness Scale	Large companies	72.71	13.69	1.89	7.13	0.45	1.01	1.92	0.89
	Midsize companies	4.63	81.62	3.12	6.95	0.94	1.39	0.16	1.09
	Medium companies	1.87	4.96	3.13	88.87	0.95	0.00	0.10	0.13
	Small companies	4.03	17.25	2.98	8.32	66.54	0.31	0.05	0.49

05 Others

1. Recruitment process of design manpower

- Concerning the process of hiring design manpower(multiple responses allowed), 'Online' is the highest with 85.3%, followed by 'Recruitment company'(20.2%), 'Employment through personal connection'(19.0%), 'Public employment arrangement center'(17.7%), etc.

▼ Recruitment process of design manpower(multiple responses allowed) (Base : companies employing designers, multiple responses, Unit : %)



▼ Recruitment process of design manpower(1st priority) (Base : companies employing designers, 1st priority, Unit : %)

Classification	Online	Recruitment company	Employment through personal connection	Public employment arrangement center	Scout from peer industry	Career consulting in school	Recruiting exhibition by government agencies	Others
2019	**78.8**	**5.3**	**7.6**	**3.6**	**1.1**	**0.4**	**0.6**	**2.7**
2018	84.4	7.1	1.6	2.8	-	1.0	0.7	2.4

▼ Recruitment process of design manpower by business type and scale (Base : companies employing designers, multiple responses, Unit : %)

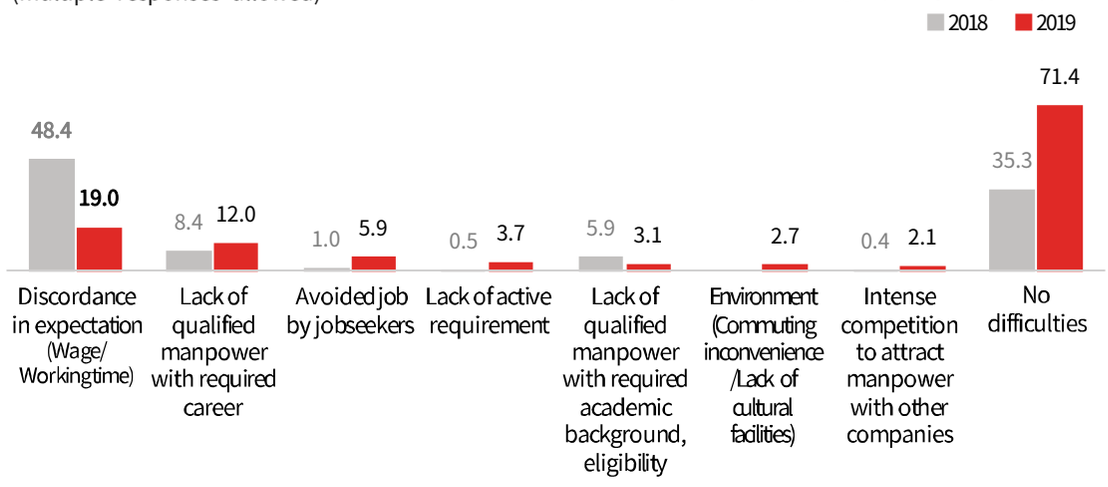
Classification		Online	Recruitment company	Employment through personal connection	Public employment arrangement center	Scout from peer industry	Career consulting in school	Recruiting exhibition by government agencies	Others
Total		**85.3**	**20.2**	**19.0**	**17.7**	**4.2**	**2.3**	**1.9**	**2.7**
Business Type	Product design	88.2	25.9	34.0	8.2	1.4	1.5	1.4	0.0
	Visual design	85.6	23.8	26.6	24.4	5.5	3.8	0.8	0.0
	Digital/multimedia design	92.1	21.5	27.4	2.9	11.4	2.1	5.4	0.0
	Space design	82.5	30.8	21.9	24.8	10.4	1.0	2.1	0.0
	Fashion/textile design	90.5	10.4	27.7	5.3	6.7	5.0	0.0	0.0
	Service/experience design	88.7	13.9	8.9	26.2	2.4	0.9	0.7	0.0
	Industrial craft design	75.9	29.4	31.0	11.7	2.0	0.0	0.0	0.0
	Design infrastructure (design-based technology)	83.3	15.8	13.0	15.1	1.9	3.7	3.0	8.1
Business Scale	Large companies	95.4	8.3	6.2	0.0	0.0	23.8	0.0	0.0
	Midsize companies	94.4	33.6	10.2	6.8	3.5	1.5	4.6	0.0
	Medium companies	86.2	25.2	14.6	13.2	4.1	4.4	1.8	8.2
	Small companies	84.9	18.8	20.3	19.2	4.2	1.7	1.9	1.3

2. Difficulties in hiring design manpower

- Regarding the causes of difficulties in hiring design manpower (multiple responses allowed), it is presented as ‘Discordance in expectation (Wage/working time)(19.0%), ‘Avoided job by jobseekers’, etc.
- Meanwhile, ‘No difficulties’ reached 71.4%.

▼ Difficulties in hiring design manpower (multiple responses allowed)

(Base : companies employing designers, multiple responses, Unit : %)



※ 2018 result is based on 1st priority.

▼ Difficulties in hiring design manpower (1st priority)

(Base : companies employing designers, 1st priority, Unit : %)

Classification	Discordance in expectation (Wage/ Working time)	Lack of qualified manpower with required career	Lack of active requirement	Avoided job by jobseekers	Lack of qualified manpower with required academic background, eligibility	Intense competition to attract manpower with other companies	Environment	No difficulties
2019	**13.0**	**8.8**	**2.1**	**1.7**	**1.1**	**1.1**	**0.7**	**71.4**
2018	48.4	8.4	0.5	1.0	5.9	0.4	-	35.3

▼ Difficulties in hiring design manpower by business type and scale

(Base : companies employing designers, multiple responses, Unit : %)

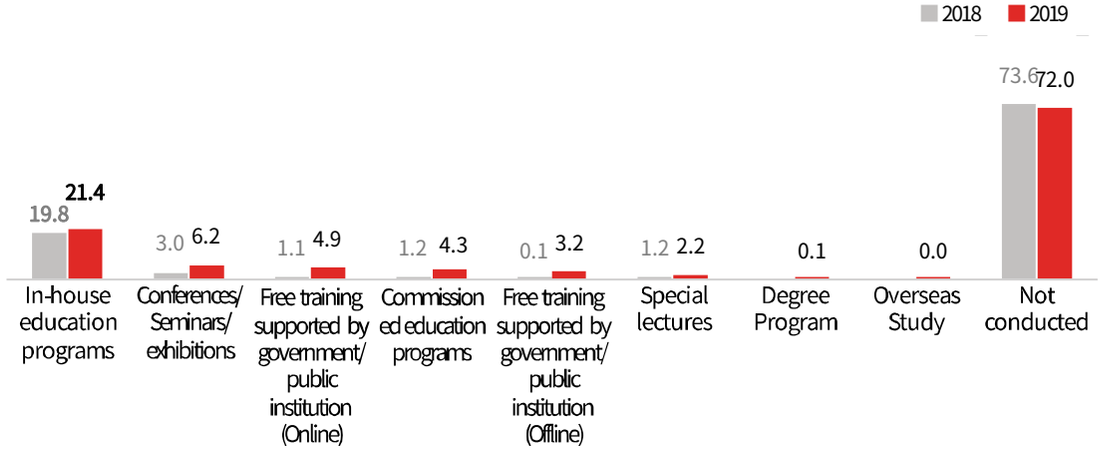
Classification		Discordance in expectation	Lack of qualified manpower with required career	Avoided job by jobseekers	Lack of active requirement	Lack of qualified manpower with required academic background, eligibility	Environ-ment	Intense competition to attract manpower with other companies	No difficulties
Total		**19.0**	**12.0**	**5.9**	**3.7**	**3.1**	**2.7**	**2.1**	**71.4**
Busi-ness Type	Product design	27.7	21.1	2.8	3.6	3.4	5.4	2.8	59.7
	Visual design	30.6	18.4	6.1	10.3	5.7	3.4	0.8	58.0
	Digital/multimedia design	19.7	16.4	2.2	5.0	2.6	3.2	6.4	67.1
	Space design	32.0	25.4	9.2	5.1	8.3	4.3	0.5	51.6
	Fashion/textile design	27.7	3.6	13.8	7.1	0.8	1.9	5.0	61.7
	Service/experience design	13.6	6.9	5.1	2.4	2.6	0.0	5.3	78.7
	Industrial craft design	32.7	3.2	22.9	11.6	0.0	0.5	2.7	50.3
	Design infrastructure (design-based technology)	7.5	5.5	3.1	0.9	0.8	2.8	0.0	88.2
Busi-ness Scale	Large companies	5.6	8.4	0.0	0.0	4.6	1.3	0.0	86.9
	Midsize companies	8.4	7.0	0.0	3.6	0.6	1.9	0.5	86.1
	Medium companies	17.7	13.1	1.8	2.3	4.4	0.8	1.1	74.8
	Small companies	19.6	11.8	7.0	4.1	2.8	3.3	2.3	70.3

3. Designer re-education method

- Regarding conducted designer education in recent one year, ‘In-house education programs’(21.4%) accounts for the highest proportion , ‘Conferences/Seminars exhibitions’(6.2%), ‘Free training supported by government/public institution(Online)’(4.9%), etc.
- Meanwhile, ‘Not conducted’ reached 72.0%.

▼ Designer re-education method

(Base : companies employing designers, multiple responses, Unit : %)



▼ Designer re-education method by business type and scale

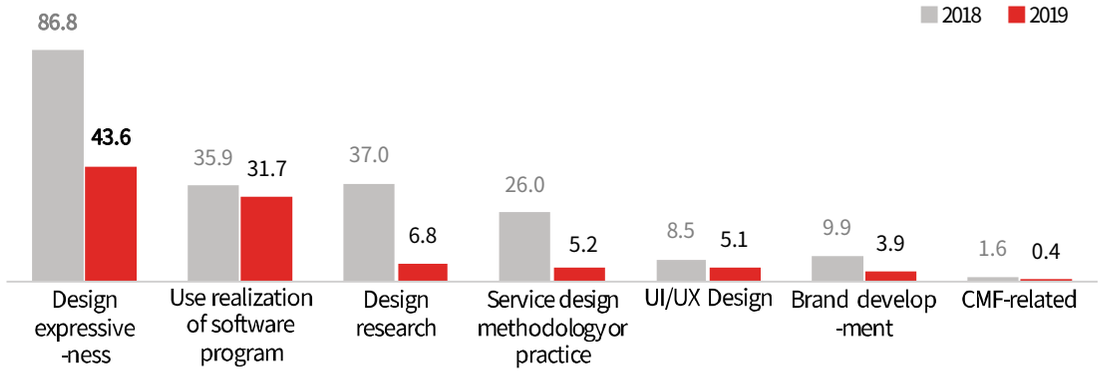
(Base : companies employing designers, multiple responses, Unit : %)

Classification		In-house education programs	Conferences/ Seminars/ exhibitions	Free training supported by government/ public institution (Online)	Commissioned education programs	Free training supported by government/ public institution (Offline)	Special lectures	Degree Program	Overseas Study	Not conducted
Total		**21.4**	**6.2**	**4.9**	**4.3**	**3.2**	**2.2**	**0.1**	**0.0**	**72.0**
Business Type	Product design	34.9	7.7	1.9	6.0	2.1	1.3	0.0	0.0	60.4
	Visual design	17.0	8.0	7.2	5.0	2.7	4.0	0.0	0.0	74.1
	Digital/multimedia design	43.3	7.2	5.8	24.3	0.1	1.5	0.0	0.0	50.8
	Space design	28.0	15.5	9.8	5.0	7.8	5.1	0.4	0.1	58.5
	Fashion/textile design	18.7	7.7	0.9	5.7	0.4	1.2	0.0	0.2	76.7
	Service/experience design	7.0	1.9	2.8	1.6	4.6	1.3	0.0	0.0	87.2
	Industrial craft design	14.3	0.5	0.0	1.4	0.0	0.3	0.0	0.0	85.7
	Design infrastructure (design-based technology)	21.3	3.7	5.4	2.6	1.7	1.6	0.0	0.0	73.5
Business Scale	Large companies	11.5	21.9	4.7	8.3	0.0	13.6	0.0	3.2	64.5
	Midsize companies	25.1	6.5	9.1	6.2	6.5	1.3	0.0	0.9	63.5
	Medium companies	41.1	7.2	6.1	9.6	4.1	3.6	0.0	0.0	54.5
	Small companies	16.3	5.9	4.6	2.9	2.9	1.7	0.1	0.0	76.6

4-1. Education program required : Design Capability

- Concerning required design capability education program, ‘Design expressiveness’(43.6%) accounts for the highest proportion, followed by ‘Use realization of software program’(31.7%), ‘Design research’(6.8%), ‘Service design methodology or practice’(5.2%), etc.

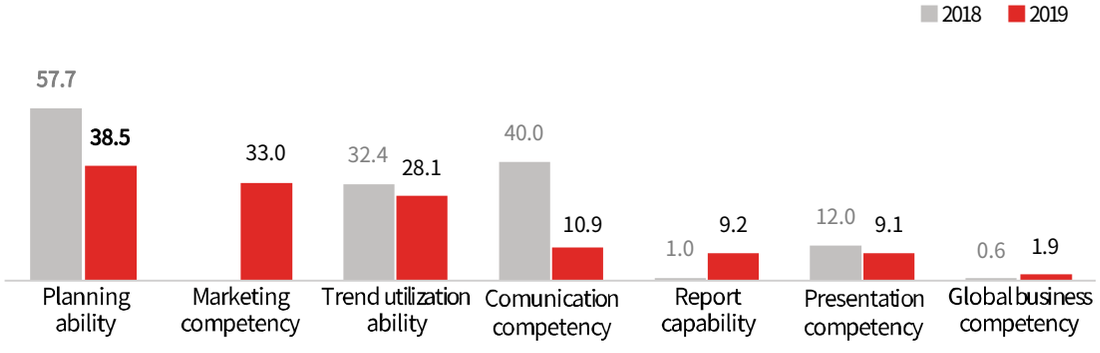
▼ Education program required : Design Capability (Base : companies employing designers, multiple responses, Unit : %)



4-2. Education program required : Business Capability

- Concerning required business capability education program, ‘Planning ability’(38.5%) accounts for the highest proportion, followed by ‘Marketing competency’(33.0%), ‘Trend utilization ability’(28.1%), ‘Communication competency’(10.9%), etc.

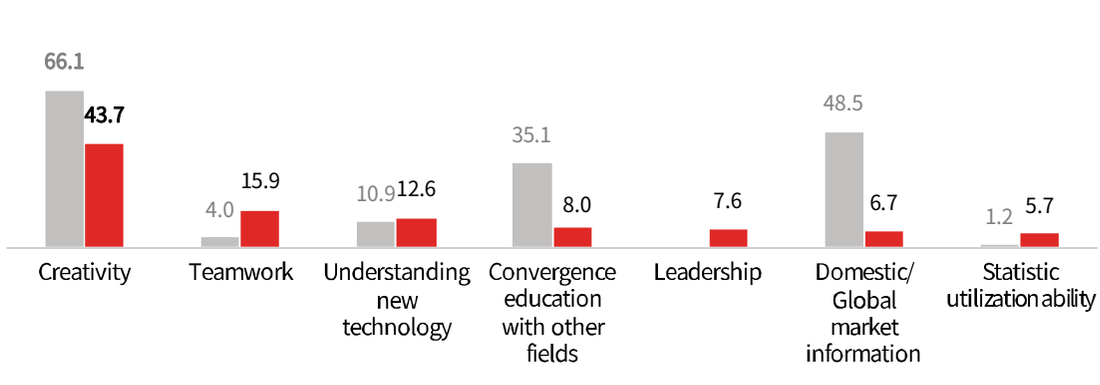
▼ Education program required : Business Capability (Base : companies employing designers, multiple responses, Unit : %)



4-3. Education program required : Convergence Capability

- Regarding required business capability education program, ‘Creativity’ has the largest proportion with 43.7%, followed by ‘Teamwork’(15.9%), ‘Understanding new technology’(12.6%), ‘Covergence education with other fields’(8.0%), etc.

▼ Education program required : Convergence Capability (Base : companies employing designers, multiple responses, Unit : %)

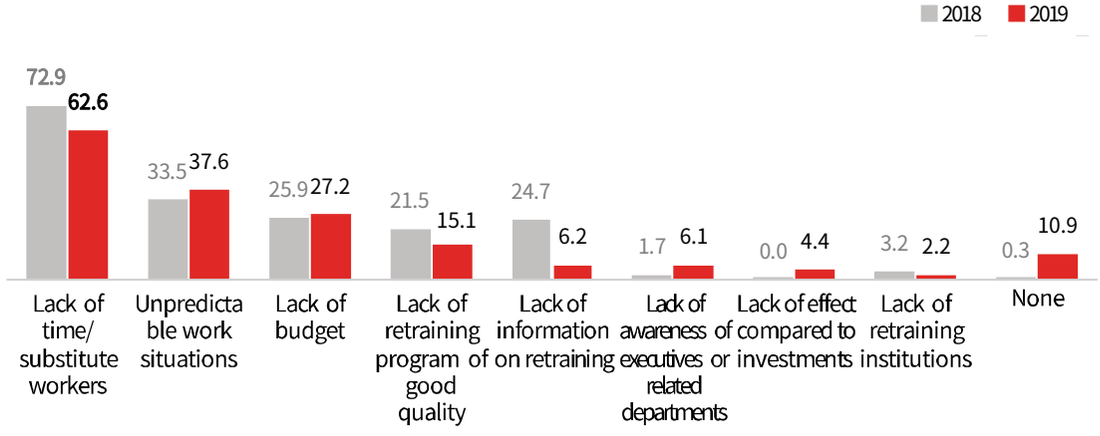


5. Difficulties in educating designers

- Concerning difficulties in educating designers, ‘Lack of time/substitute workers’(62.6%) accounts for the highest proportion, followed by ‘Unpredictable work situation’(37.6%), ‘Lack of budget’ (27.2%), etc.

▼ Difficulties in educating designers (multiple responses allowed)

(Base : companies employing designers, multiple responses, Unit : %)



▼ Difficulties in educating designers(1st priority)

(Base : companies employing designers, 1st priority, Unit : %)

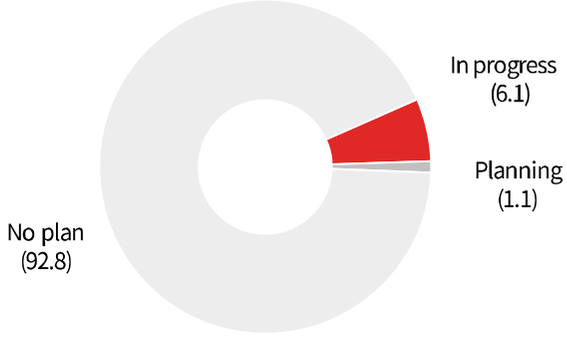
Classification	Lack of time/ substitute workers	Lack of budget	Unpredictable work situations	Lack of retraining program of good quality	Lack of awareness of executives or related departments	Lack of information on retraining	Lack of effect compared to investments	Lack of retraining institutions	None
2019	**37.5**	**18.0**	**16.6**	**8.4**	**3.3**	**2.8**	**1.6**	**1.0**	**10.9**
2018	52.9	11.4	11.0	11.0	0.1	11.3	-	1.9	0.3

6. Overseas Business in Progress or Planning

- Among companies utilizing design, the percentage of those that have overseas business in progress or planning reached 6.1%, ‘in planning’ reached 1.1%.
  Meanwhille, 92.8% of companies has no plans of overseas business.

▼ Overseas Business in Progress or Planning

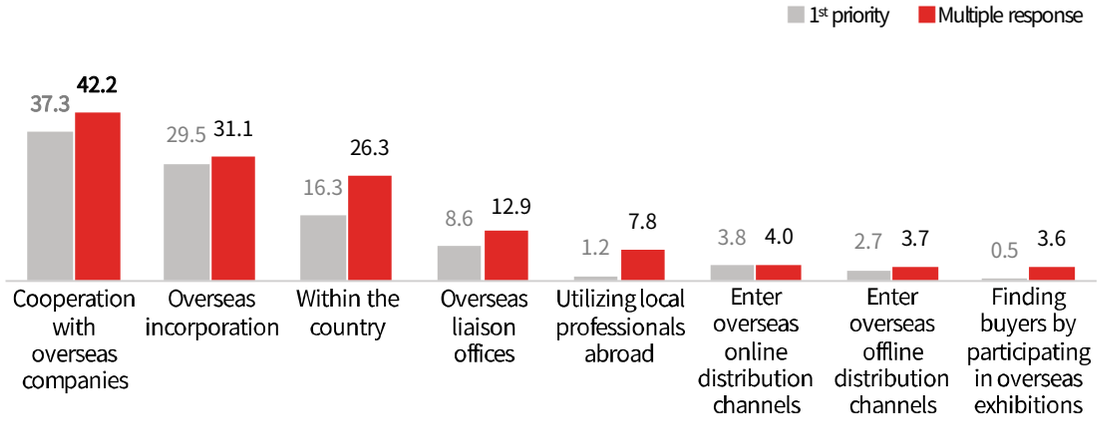
(Unit : %)



7. Means of overseas business

- Regarding the means of overseas business, 'Cooperation with overseas companies' has the highest proportion with 42.2%, followed by 'Overseas incorporation'(31.1%), 'Within the country' (26.3%), 'Overseas liaison offices'(12.9%), etc.

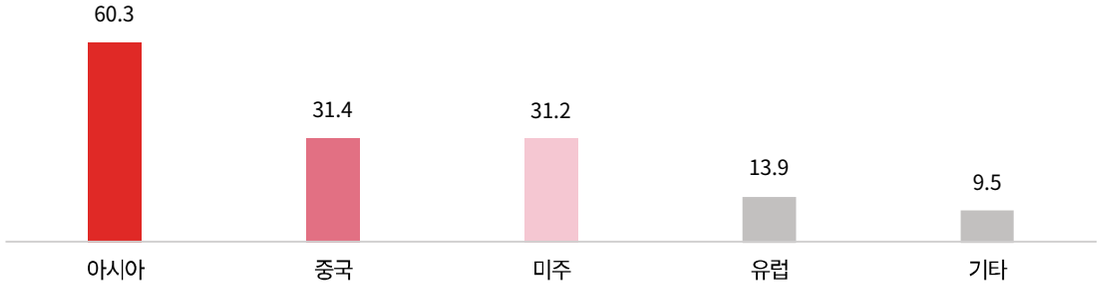
▼ Means of overseas business **(Base : companies conducting overseas business, multiple responses, Unit : %)**



8. Exchange overseas area

- Looking at the countries in which design companies are currently conducting overseas business, it is presented as 'Asia'(60.3%), 'China'(31.4%), 'America'(31.4%), 'Europe'(13.9%), etc.

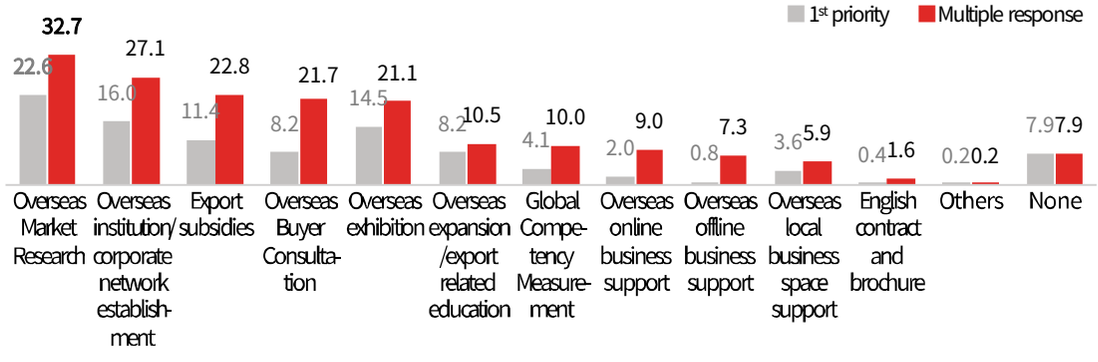
▼ Exchange overseas area **(Base : companies conducting overseas business, multiple responses, Unit : %)**



9. Demand for Government Support for Overseas expansion

- Regarding demand for government support for overseas expansion, 'Overseas Market Research' has the largest proportion with 32.7%, followed by 'Overseas institution/corporate network establishment'(27.1%), 'Export subsidies'(22.8%), 'Overseas Buyer consultation'(21.7%), etc.

▼ Demand for Government Support for Overseas expansion **(Base : companies conducting overseas business, multiple responses, Unit : %)**

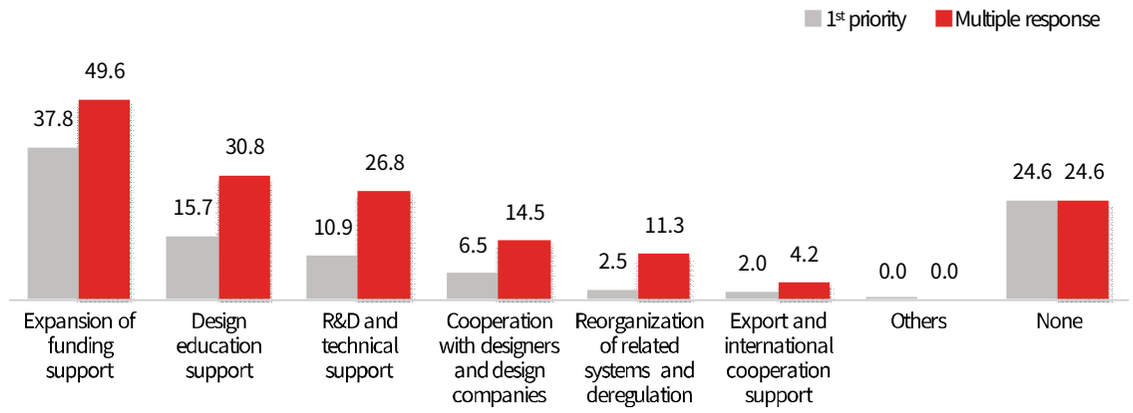


10. Demand for Government Support related Design

- Looking at demand for government support related design, ‘Expansion of funding support’ has the largest proportion with 49.6%, followed by ‘Design education support’(30.8%), ‘R&D technical support’(26.8%), etc.

▼ Demand for Government Support related Design

(multiple responses, Unit : %)



02

Specialized
Design companies

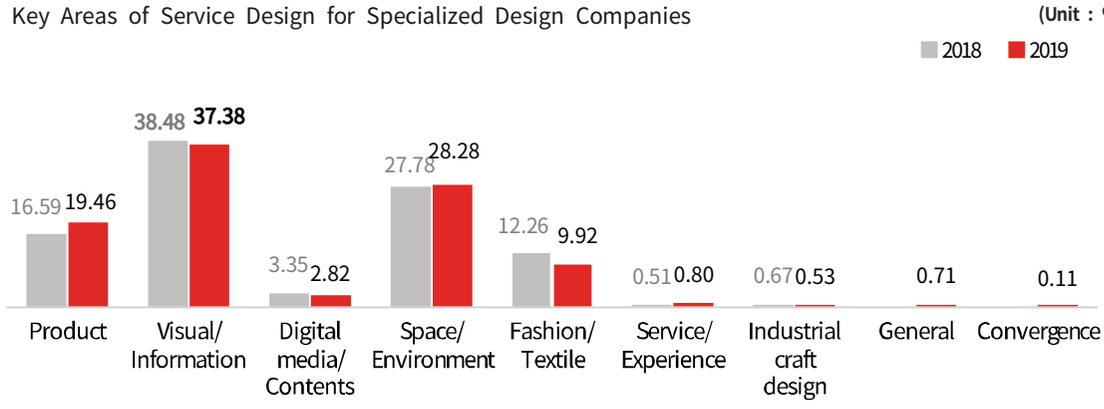
2020 KOREA DESIGN STATISTICAL DATA

01 Main Business Status

1. Key Areas of Service Design for Specialized Design Companies

- Concerning the key areas of service design for specialized design companies, 'Visual/Information' design has the largest proportion with 37.38%, followed by 'Space/Environment' design(28.28%), 'Product' design(19.46%), 'Fashion/Textile' design(9.92%), etc.
- 'Visual/Information design' shows a decrease compared to 2018 (38.48%), however 'Space/Environment' design (27.78% in 2018) and 'Product' design(19.46%) increased.

▼ Key Areas of Service Design for Specialized Design Companies (Unit : %)



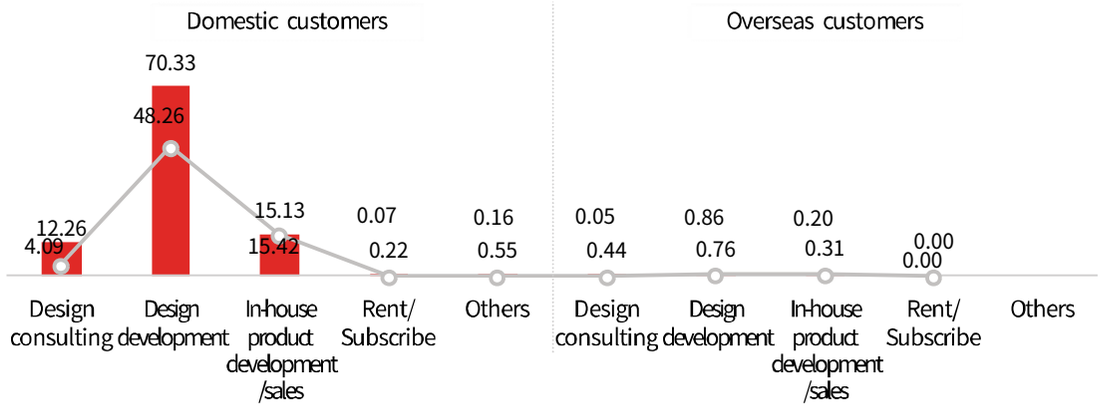
▼ Key Areas of Service Design for Specialized Design Companies by business type and scale (Unit : %)

Classification		Product	Visual/ Information	Digital media/ Contents	Space/ Environment	Fashion/ Textile	Service/ Experience	Industrial craft design	General	Convergence
Total		**19.46**	**37.38**	**2.82**	**28.28**	**9.92**	**0.80**	**0.53**	**0.71**	**0.11**
Business Type	Product design	72.71	13.69	1.89	7.13	0.45	1.01	1.92	0.89	0.30
	Visual design	4.63	81.62	3.12	6.95	0.94	1.39	0.16	1.09	0.10
	Interior design	1.87	4.96	3.13	88.87	0.95	0.00	0.10	0.13	0.00
	Other types of fashion/ textile design	4.03	17.25	2.98	8.32	66.54	0.31	0.05	0.49	0.02
Business Scale	1 persons	10.08	43.11	1.94	31.36	11.52	0.00	1.02	0.86	0.11
	2~4 persons	21.47	36.55	2.78	26.92	10.27	0.85	0.40	0.65	0.12
	5~9 persons	24.73	34.03	2.15	28.47	8.00	1.69	0.47	0.43	0.02
	10~14 persons	26.17	35.61	6.48	24.08	3.70	1.63	0.14	2.13	0.07
	15 and more persons	22.61	24.25	9.50	34.11	8.27	0.63	0.00	0.23	0.39

2. Sales composition by service type

- Regarding sales composition by service type(domestic), ‘Design development’ reached 70.33%, which is 48.26 cases. Meanwhile, in case of overseas customers, composition and case of every service type are both low.

▼ Sales composition by service type (Unit : %)



▼ Course of Sales composition by service type (Unit : case, %)

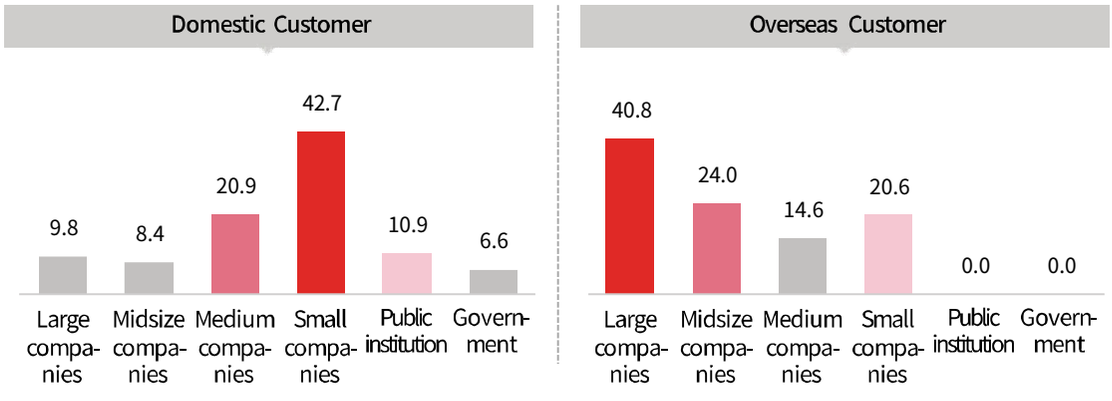
Classification		Domestic Customers					Overseas Customers				
		Design consulting	Design development	In-house product development/sales	Rent/ Subscribe	Others	Design consulting	Design development	In-house product development/sales	Rent/ Subscribe	Others
2019	Composition	12.26	70.33	15.13	0.22	0.55	0.44	0.76	0.31	0.00	0.00
	Cases	4.09	48.26	15.42	0.07	0.16	0.05	0.86	0.20	0.00	0.00
2018	Composition	28.66	64.75	-	-	2.51	0.66	1.25	-	-	0.05
	Cases	14.29	63.91	-	-	1.30	0.15	0.44	-	-	0.00

※ ‘In-house product development/sales’ and ‘Rent/Subscribe’ added from 2020

3. Customer composition of design development service

- Concerning the domestic customer composition of design development service (Based on sales), ‘Small companies’ reached 42.7%, followed by ‘Medium companies’(20.9%), ‘Public institution’(10.9%), ‘Large companies’(9.8%), ‘Midsize companies’(8.4%), etc.
- In case of overseas customer, ‘Large companies’ reached 40.8%, followed by ‘Midsize companies’(24.0%), ‘Small companies’(20.6%), etc.

▼ Customer composition of design development service (Unit : %)



▼ Customer composition of design development service by business type and scale (Unit : %)

Classification		Domestic customer						Overseas customer					
		Large companies	Midsize companies	Medium companies	Small companies	Public institution	Government	Large companies	Midsize companies	Medium companies	Small companies	Public institution	Government
Total		**9.85**	**8.39**	**20.86**	**42.68**	**10.94**	**6.56**	**40.82**	**24.00**	**14.59**	**20.59**	**0.00**	**0.00**
Business Type	Product design	11.53	11.60	32.82	30.11	8.06	5.89	19.94	17.74	25.55	36.77	0.00	0.00
	Visual design	11.47	7.85	18.70	35.95	18.85	7.18	79.27	13.03	7.70	0.00	0.00	0.00
	Interior design	8.20	7.41	15.62	54.86	5.72	7.22	39.37	0.00	0.00	60.63	0.00	0.00
	Other types of fashion/ textile design	5.70	6.30	16.44	59.43	3.90	4.82	28.91	67.40	0.00	3.68	0.00	0.00
Business Scale	1 persons	4.36	7.10	13.36	62.71	6.78	4.93	74.55	25.45	0.00	0.00	0.00	0.00
	2~4 persons	10.09	7.96	23.75	40.71	11.00	5.73	17.24	13.79	25.86	43.11	0.00	0.00
	5~9 persons	10.43	11.29	22.92	29.26	15.19	10.91	38.39	47.06	1.71	12.84	0.00	0.00
	10~14 persons	20.73	10.62	21.14	18.44	19.68	8.30	53.31	24.72	15.11	6.87	0.00	0.00
	15 and more persons	32.70	9.38	15.23	17.97	9.73	12.01	48.17	16.00	23.64	12.19	0.00	0.00

02 Status of Finance and Investment

1. 2019 Status of Finance and Investment

- 2019 sales amount of specialized design companies reached an estimated 632.62 million KRW, decreased compared to the previous year(650.73 million KRW).
  Average personnel expenses reached 146.80 million KRW(169.71 million KRW), Average R&D expenses reached 15.35 million KRW(24.74 million KRW), Average sales profits reached 52.06 million KRW(64.65 million KRW).
  Average 2019 design expenses reached 223.80 million KRW(165.27 million KRW).

▼ 2019 Status of Finance and business expenses (Unit : Million KRW)

Classification	2014	2015	2016	2017	2018	2019	YoY	
							Sum	%
Sales	659.35	614.94	618.95	640.62	650.73	632.62	▼ 18.11	▼ 2.9
Personnel expenses	123.25	171.26	166.99	178.28	169.71	146.80	▼ 22.91	▼ 15.6
R&D expenses	13.46	30.27	24.00	24.73	24.74	15.35	▼ 9.39	▼ 61.2
Sales profits	78.33	89.66	65.01	68.70	64.65	52.06	▼ 12.59	▼ 24.2
Design expenses*	131.6	193.09	169.61	165.60	165.27	223.80	▲ 58.53	▲ 26.2

※ From 2015 ‘design/designer education fee’ is added to design expenses.
※ From 2019, standard of business expenses changed from design to all.

▼ 2019 Status of Finance and business expenses by business type and scale (Unit : Million KRW)

Classification		Sales	Personnel expenses	R&D expenses	Business profits	Design expenses
Total		632.62	146.80	15.35	52.06	223.80
Business Type	Product design	706.52	156.78	18.24	53.83	195.63
	Visual design	419.97	144.08	12.27	37.93	198.54
	Interior design	883.14	151.80	8.46	64.84	261.98
	Other types of fashion/ textile design	619.51	128.35	31.70	63.53	267.75
Business Scale	1 persons	150.30	34.59	3.21	10.86	69.31
	2~4 persons	426.66	101.81	7.78	43.21	148.40
	5~9 persons	980.41	235.47	17.07	67.46	371.73
	10~14 persons	1,712.42	422.78	108.59	117.93	655.38
	15 and more persons	5,597.83	1,163.36	127.36	413.89	1,682.03

2. Expenses by detail items

- Looking at business expenses by detail items, personnel expenses reached 147.22 million KRW, ‘service charge’ reached 34.22 million KRW.

▼ Expenses by detail items by business type and scale (Unit : Million KRW)

Classification		Personnel expenses	Service charge	other service charge	Devices and software	land/bldg. for R&D	Education	Purchase of IPRs in design	Others
Total		**147.22**	**34.22**	**8.92**	**7.61**	**6.56**	**1.37**	**1.33**	**16.58**
Busi-ness Type	Product design	156.30	5.48	6.00	4.58	8.83	0.49	0.51	13.45
	Visual design	145.09	16.14	10.11	5.82	7.39	0.55	0.51	12.93
	Interior design	152.03	78.85	9.33	5.49	2.80	0.63	0.16	12.69
	Other types of fashion/ textile design	128.97	47.75	9.74	21.43	7.52	6.46	7.07	38.82
Busi-ness Scale	1 persons	34.98	15.72	6.53	1.92	2.85	0.03	0.06	7.22
	2~4 persons	102.69	21.44	5.98	3.61	3.73	0.19	0.72	10.04
	5~9 persons	234.81	67.58	14.81	9.63	12.12	1.11	1.98	29.68
	10~14 persons	422.08	69.03	29.12	37.02	34.45	10.55	5.31	47.83
	15 and more persons	1,162.15	226.97	27.86	84.43	25.04	24.99	15.46	115.14

3. Outlook of sales, business expenses, R&D expenses, Designer employment[14)]

- Concerning outlook of sales, business expenses, R&D expenses, Designer employment, all items other than 'designer employment' are expected to decrease compared to 2019.

▼ Outlook of sales, business expenses, R&D expenses, Designer employment (Unit : %)

Classification	Compared to 2018		Compared to 2019	
	2019 Outlook	2020 Outlook	2020 Outlook	2021 Outlook
Sales	93.36	99.54	87.73	97.61
Business expenses	94.24	98.65	85.33	93.50
R&D expenses	105.90	107.25	94.53	97.91
Designer employment	99.88	100.94	101.28	108.41

- 2020 outlook of ‘Sales’ ‘Business expenses’ and ‘R&D’ show negative outlooks, except ‘Designers employment’. In terms of outlook of ‘Sales’, other types of fashion/ textile design(77.39%), 1 persons (82.24%) shows more negative outlook than other types. In terms of ‘Business expenses’, other types of fashion/ textile design(77.39%) and 1 persons (80.89%) shows negative outlook.

▼ 2020 Outlook of sales, business expenses, R&D expenses, Designer employment business type and scale (Unit : %)

Classification		2020 Outlook			
		Sales	Business expenses	R&D expenses	Designers employment
Total		**87.73**	**85.33**	**94.53**	**101.28**
Busi-ness Type	Product design	99.54	98.30	95.65	100.34
	Visual design	81.15	85.35	96.58	101.73
	Interior design	92.40	79.75	88.42	101.05
	Other types of fashion/ textile design	77.39	74.08	98.40	102.01
Busi-ness Scale	1 persons	82.24	80.89	96.29	103.22
	2~4 persons	88.09	85.72	94.42	99.73
	5~9 persons	91.00	87.32	91.45	103.69
	10~14 persons	98.13	94.09	95.10	102.20
	15 and more persons	95.16	92.14	97.14	101.45

14) 2020/2021 Outlook : The same amount as 2019 is shown as 100%, while an increase from 2019 is shown as above 100% and a decrease from 2019 is shown as less than 100%. For example, if the amount is half that of 2019, it is shown as 50%, and if it is twice as much as that of 2019, it is shown as 200%.

- 2021 outlook of ‘Sales’ ‘Business expenses’ and ‘R&D’ show negative outlooks, except ‘Designers employment’. Negative in all industries except product design.
- In terms of product design, ‘Sales’(117.63%), ‘Business expenses’(113.09%), ‘R&D expenses’(102.96%), ‘Designers employment’(107.28%) show positive outlook.

▼ 2021 Outlook of sales, business expenses, R&D expenses, Designer employment business type and scale (Unit : %)

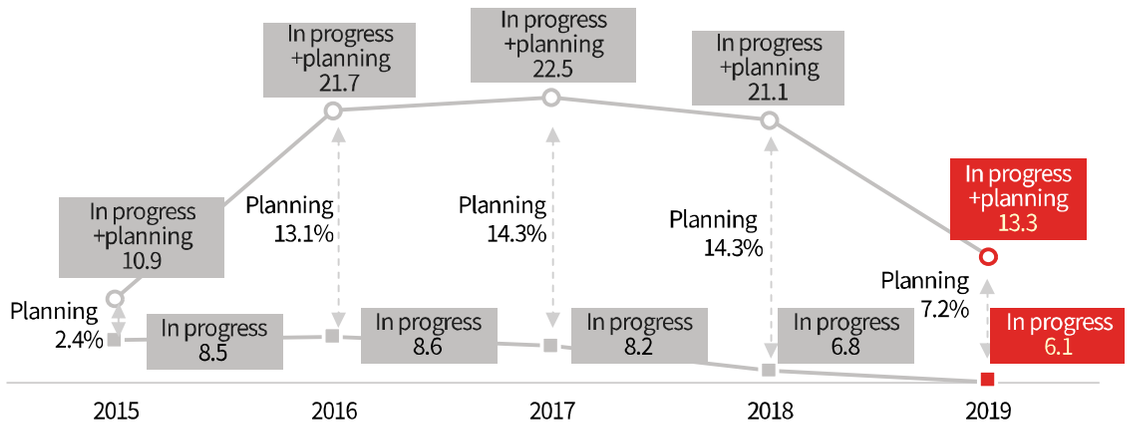
Classification		2021 Outlook			
		Sales	Business expenses	R&D expenses	Designers employment
Total		**97.61**	**93.50**	**97.91**	**108.41**
Busi-ness Type	Product design	117.63	113.09	102.96	107.28
	Visual design	91.55	93.16	99.75	109.88
	Interior design	93.96	81.37	88.73	108.29
	Other types of fashion/ textile design	87.56	84.34	101.46	106.49
Busi-ness Scale	1 persons	89.54	85.32	97.00	112.26
	2~4 persons	99.05	94.68	98.19	107.75
	5~9 persons	100.66	98.25	96.24	106.03
	10~14 persons	108.82	101.34	101.34	105.88
	15 and more persons	105.37	103.53	103.80	104.42

03 Status of Overseas Business

1. Overseas business in progress or planning

- Among specialized design companies, the percentage of those that have overseas business in progress or planning is 13.3%.
- Overseas business 'in progress' reached 6.1% and 'planning' reached 7.2%.
- Overseas business "in progress" dropped 0.7%p year-on-year.

▼ Overseas business in progress or planning (Unit : %)



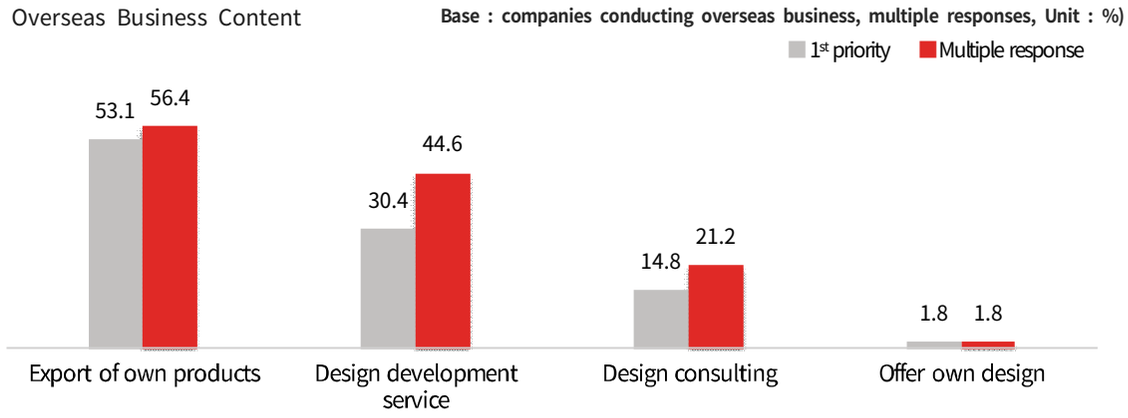
▼ Overseas business in progress or planning by business type and scale (Unit : %)

Classification		In progress of overseas business	Planning	In progress + Planning
Total		**6.1**	**7.2**	**13.3**
Busi-ness Type	Product design	13.8	4.7	18.5
	Visual design	2.9	6.5	9.4
	Interior design	1.3	8.1	9.4
	Other types of fashion/ textile design	11.1	11.7	22.8
Busi-ness Scale	1 persons	1.6	7.3	8.9
	2~4 persons	6.4	6.2	12.6
	5~9 persons	8.1	9.2	17.3
	10~14 persons	11.2	13.2	24.4
	15 and more persons	23.0	7.0	29.9

2. Overseas Business Content

- Regarding the Overseas business contents of specialized design company(multiple responses allowed), ‘Export of own products’(56.4%) and ‘Design development service’(44.6%) show high proportion. Based on 1st priority, ‘Export of own product’ shows the highest proportion with 53.1%.

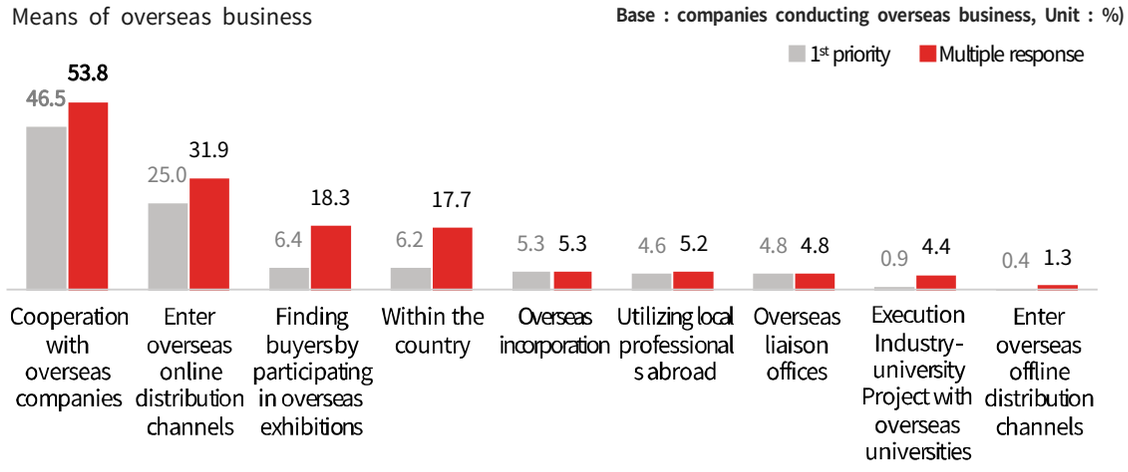
▼ Overseas Business Content



3. Means of overseas business

- Concerning the means of overseas business, ‘Cooperation with overseas companies’(53.8%) shows the highest proportion.

▼ Means of overseas business

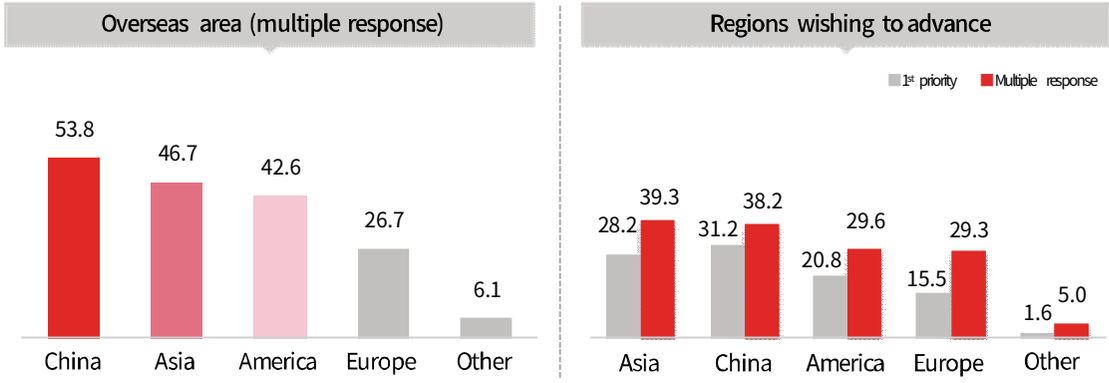


4. Exchange overseas area

- Looking at the overseas regions where specialized design companies are operating, 'China' accounts for the highest proportion with 53.8%, followed by 'Asia'(46.7%), 'America'(42.6%), 'Europe'(26.7%), etc.
- Concerning regions wishing to advance, 'Asia'(39.3%), 'China'(38.2%), 'America'(29.6%), 'Europe'(29.3%).

▼ Exchange overseas area

Base : companies conducting or planning overseas business, Unit : %)

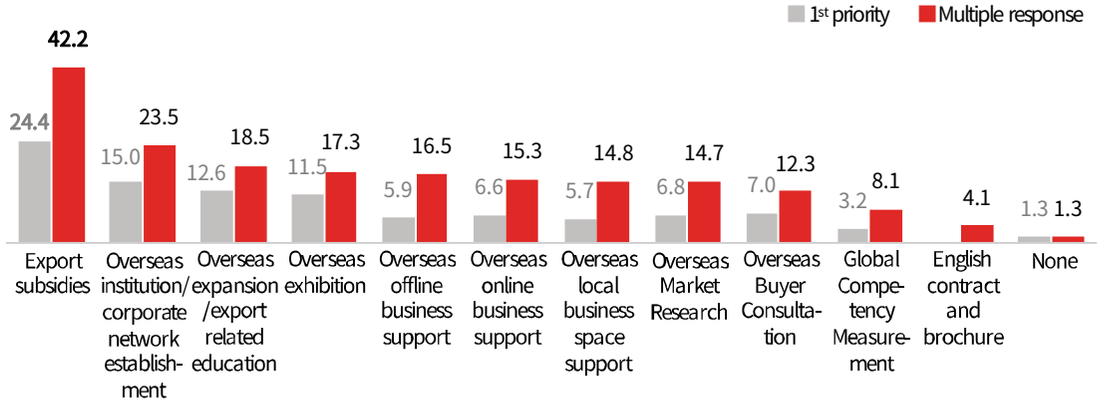


5. Demand for Government Support for Overseas expansion

- Concerning demand for government suupport for overseas expansion, 'Export subsidies' accounts for the highest proportion with 42.2%, followed by 'Overseas institution/ corporate network establishment'(23.5%), 'Overseas expansion/export related education'(18.5%), 'Overseas exhibition'(17.3%), etc.

▼ Demand for Government Support for Overseas expansion

Base : companies conducting or planning overseas business, Unit : %)

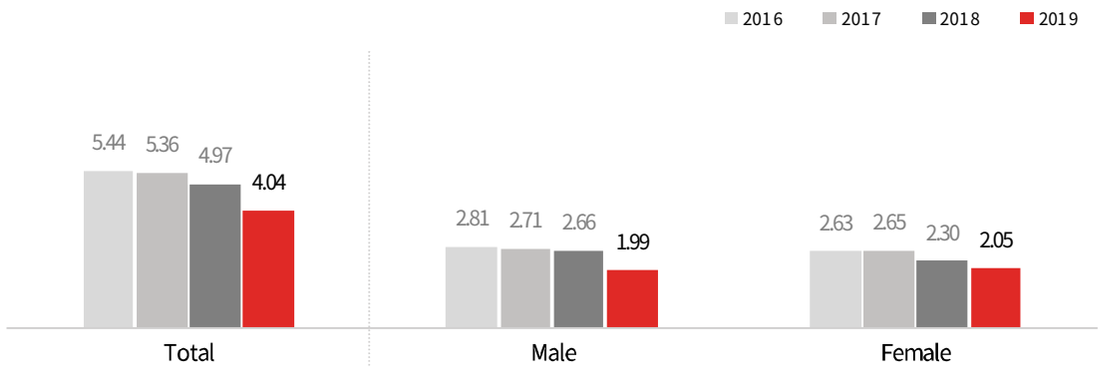


04 Status of Manpower

1. Status of employees

- Average number of manpower of specialized design companies reached 4.04, down slightly year-on-year(4.97 in 2018).
- Average number of male employees reached 1.99 and female employees is 2.05.

▼ Status of employees (Unit : Persons)

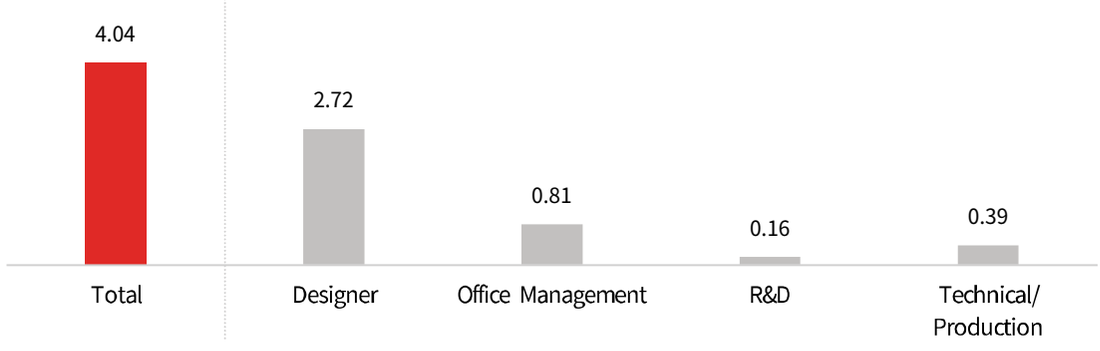


▼ Status of employees by business type (Unit : Persons)

Classification		Avg. no. of employees	Avg. no. of male employees	Avg. no. of female employees
Total		**4.04**	**1.99**	**2.05**
Business Type	Product design	4.45	2.27	2.18
	Visual design	4.01	1.87	2.14
	Interior design	3.90	2.13	1.77
	Other types of fashion/ textile design	3.67	1.60	2.08

- By rank, there are 2.72 persons of ‘Designer’, 0.81 persons of ‘Office Manager’, 0.16 persons of ‘R&D’, 0.39 persons of ‘Technical/Production’.

▼ Status of employees by job (Unit : Persons)



▼ Status of employees by job (Unit : Persons)

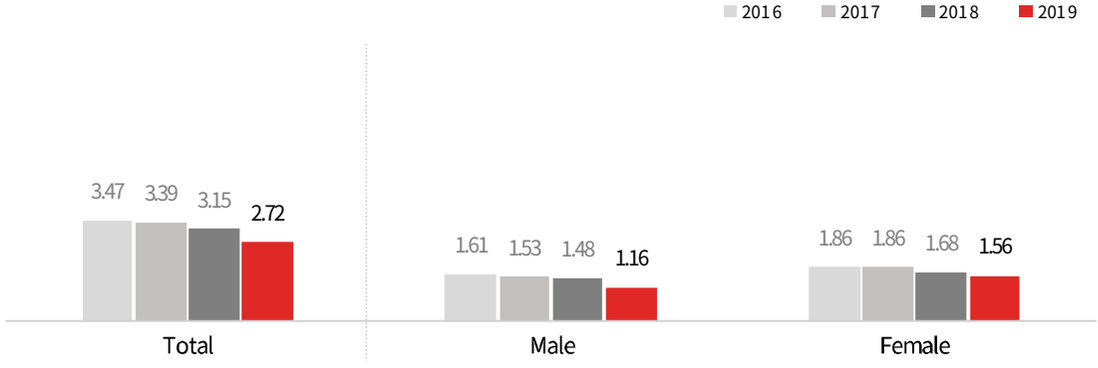
Classification		Total	Designer	Office Management	R&D	Technical/ Production
Total		**4.04**	**2.72**	**0.81**	**0.16**	**0.39**
Business Type	Product design	4.45	3.12	0.87	0.30	0.22
	Visual design	4.01	2.96	0.69	0.17	0.21
	Interior design	3.90	2.34	0.79	0.05	0.73
	Other types of fashion/ textile design	3.67	2.10	1.06	0.08	0.53

2. Status of Designer

- Average number of designers in specialized design company is 2.72, down slightly year-on-year (3.15 in 2018).
- The number of male designers reached 1.16 and female designer reached 1.56, which means there are more female designers than male designers.

▼ Status of Designer

(Unit : Persons)



▼ Status of Designer by business type

(Unit : Persons)

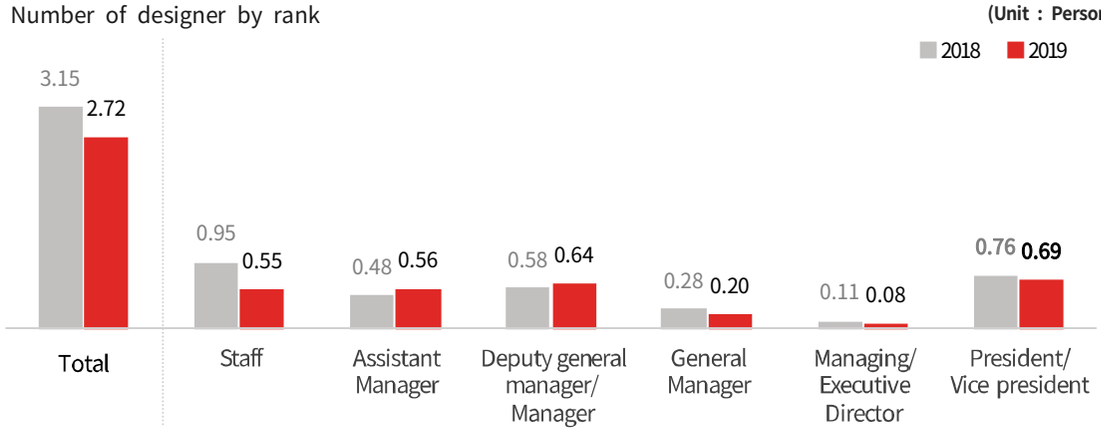
Classification		Avg no. of designers	Avg no. of male designers	Avg. no. of female designers
Total		**2.72**	**1.16**	**1.56**
Busi-ness Type	Product design	3.12	1.46	1.66
	Visual design	2.96	1.24	1.72
	Interior design	2.34	0.98	1.36
	Other types of fashion/ textile design	2.10	0.76	1.34

3. Number of designer by rank

- Concerning number of designers by rank, ‘President/Vice president’ reached the highest number with 0.69, followed by ‘Deputy general manager/Manager’(0.64), ‘Assistant manager’(0.56), ‘Staff’ (0.55), etc.

▼ Number of designer by rank

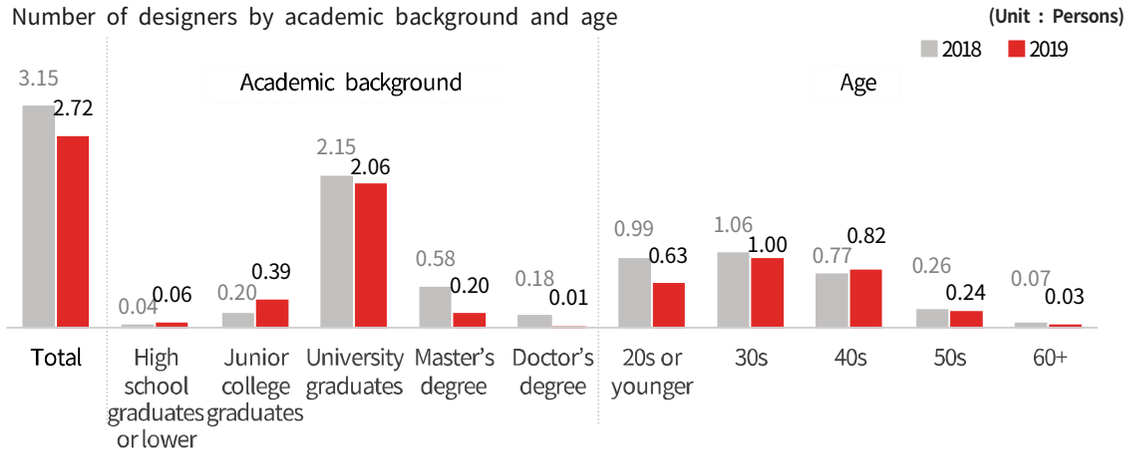
(Unit : Persons)



4. Number of designer by academic background and age

- Looking at the number of designers by educational background and age, ‘University Graduates’ (2.06) and ‘30s’(1.00) show higher percentage.

▼ Number of designers by academic background and age



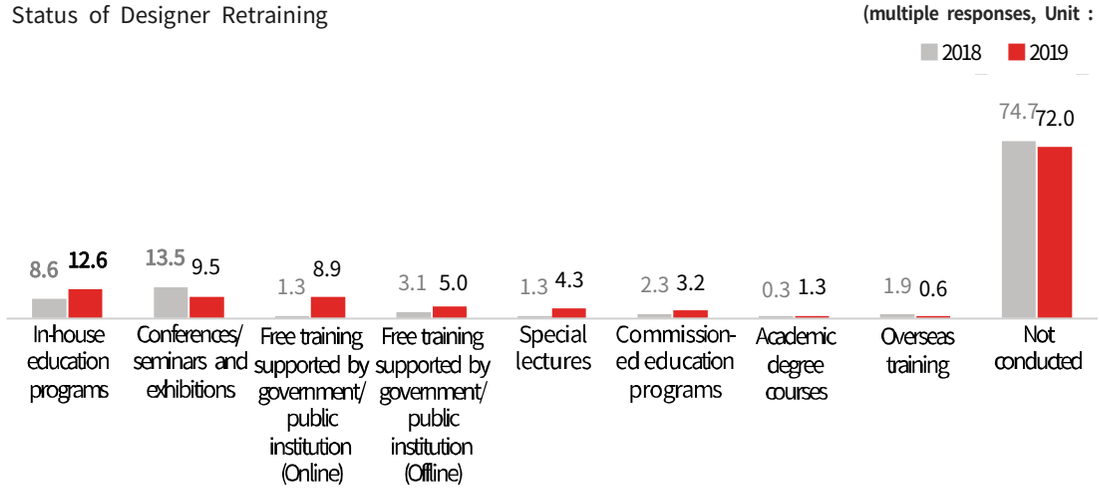
05 Designer Retraining

1. Status of Designer Retraining

- Regarding the means of designer retraining carried out in 2019, 'In-house education programs' accounts for the highest percentage with 12.6%, 'Conferences/seminars and exhibitions'(9.5%), 'Free training supported by government/public institution(Online)'(8.9%), 'Free training supported by government/public institution(Offline)'(5.0%).

▼ Status of Designer Retraining

(multiple responses, Unit : %)

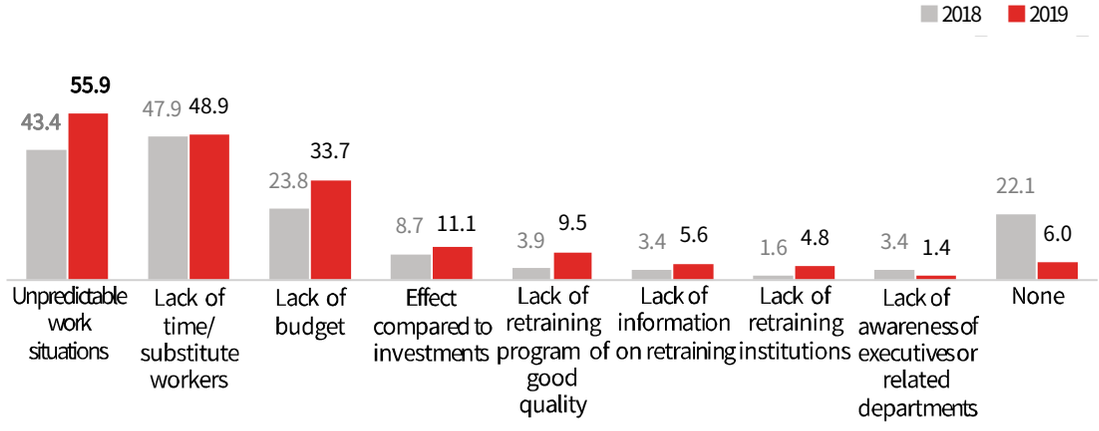


2. Difficulties in Retraining

- Concerning difficulties in retraining, most specialized design companies pointed to 'Unpredictable work situations'(55.9%), followed by 'Lack of time and substitute workers'(48.9%), 'Lack of budget' (33.7%), 'Effect compared to investments'(11.1%), etc.

▼ Difficulties in Retraining (Multiple responses allowed)

(multiple responses, Unit : %)



▼ Difficulties in Retraining (1st priority)

(1st priority, Unit : %)

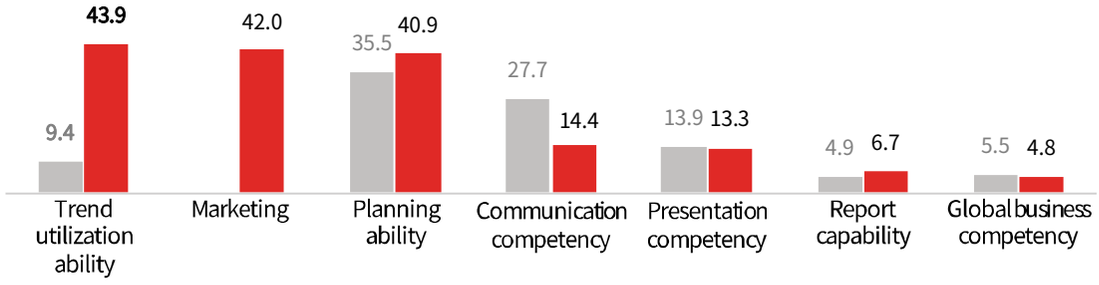
Classification	Unpredictable work situations	Lack of time/substitute workers	Lack of budget	Effect compared to investment	Lack of retraining program of good quality	Lack of information on retraining	Lack of retraining institutions	Lack of awareness of executives or related departments	None
2019	**37.5**	**18.0**	**16.6**	**8.4**	**3.3**	**2.8**	**1.6**	**1.0**	**10.9**
2018	28.4	24.9	16.2	3.8	1.4	1.4	0.4	1.4	0.3

3-1. Education program required : Design Capability

- Concerning required design capability education program, ‘Design expressiveness’(55.7%) accounts for the highest proportion, followed by ‘Use realization of software program’(47.4%), ‘Design research’(20.0%), ‘Brand development’(17.5%), etc.

▼ Education program required : Design Capability

(multiple responses, Unit : %)

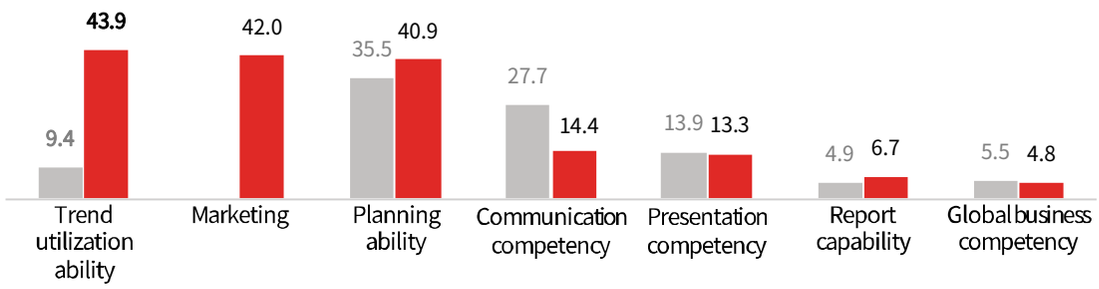


3-2. Education program required : Business Capability

- Concerning required business capability education program, Trend utilization ability’ 43.9% accounts for the highest proportion, followed by ‘Marketing competency’(42.0%), ‘Planning ability’(40.9%), ‘Communication competency’(14.4%), etc.

▼ Education program required : Business Capability

(multiple responses, Unit : %)

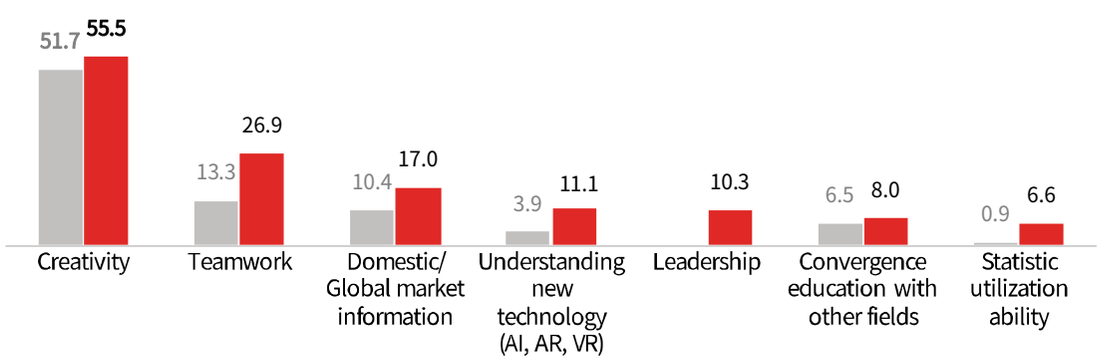


3-3. Education program required : Convergence Capability

- Regarding required business capability education program, ‘Creativity’ has the largest proportion with 55.5%, followed by ‘Teamwork’(26.9%), ‘Domestic/Global market information’(17.0%), ‘Understanding new technology’(11.1%), etc.

▼ Education program required : Convergence Capability

(multiple responses, Unit : %)



※ ‘Leadership’ is added this year.

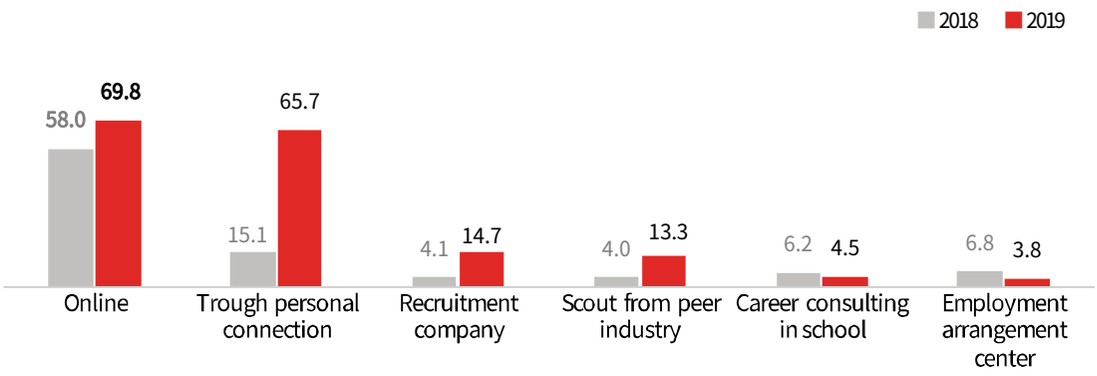
06 Status of Employment

1. Recruitment Process of Designers

- Concerning the process of hiring designers (multiple responses allowed), 'Online' accounts for the highest proportion with 69.8%, followed by 'Through personal connection'(65.7%), 'Recruitment company'(14.7%), etc.

▼ Recruitment Process of Designers (multiple responses)

(multiple responses, Unit : %)



▼ Recruitment Process of Designers (1st priority)

(1st priority, unit : %)

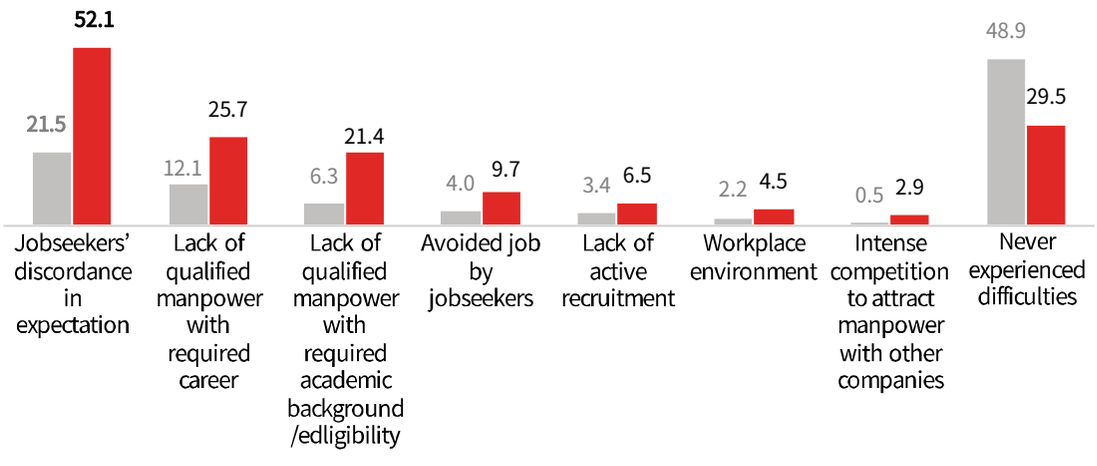
Classification	Online	Through personal connection	Scout from peer industry	Recruitment company	Career consulting in school	Employment arrangement center
2019	**53.0**	**36.3**	**4.0**	**3.8**	**1.2**	**0.9**
2018	49.0	7.3	1.5	2.0	3.0	4.9

2. Causes of difficulties in hiring design manpower

- Regarding the causes of difficulties in hiring design manpower, 'Discordance in expectation about wages or working condition' accounts for the highest proportion with 52.1%, followed by 'lack of qualified manpower with required careers' (25.7%), 'lack of qualified manpower with required academic background/eligibility' (21.4%), etc.

▼ Causes of difficulties in hiring design manpower

(multiple responses, Unit : %)



※ 2018 data is based on 1st priority.

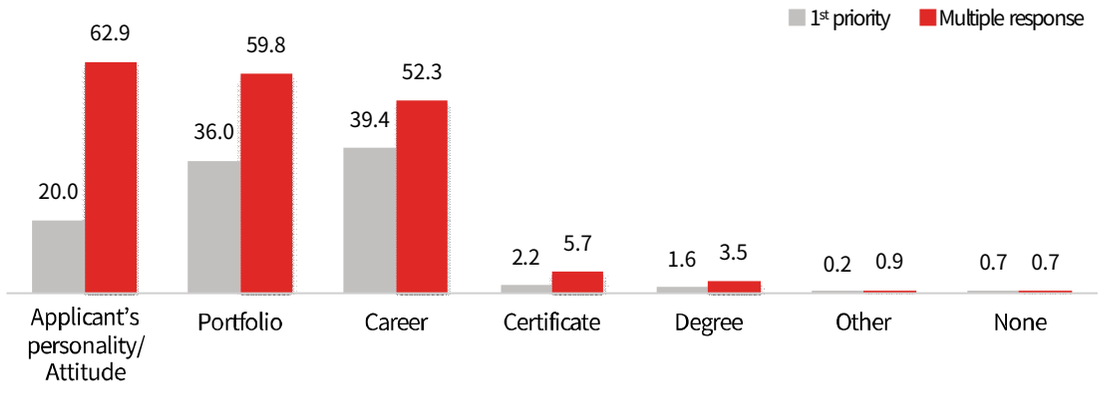
▼ Causes of difficulties in hiring design manpower (1st priority, Unit : %)

Classification	Jobseekers' discordance in expectation	Lack of qualified manpower with required career	Lack of qualified manpower with required academic background/ eligibility	Avoided job by jobseekers	Lack of active recruitment	Workplace Environment	Intense competition to attract manpower with other companies	Never experienced difficulties
2019	**37.6**	**27.9**	**12.2**	**9.8**	**6.0**	**3.2**	**1.3**	**1.2**
2018	21.5	12.1	6.3	4.0	3.4	2.2	0.5	48.9

3. Factors to consider when hiring design manpower

- Regarding factors to consider when hiring design manpower (multiple responses allowed), 'Applicant's personality/Attitude'(62.9%) and 'Portfolio'(59.8%) show high proportion.
- 'Career' accounts for the highest proportion with 39.4% when based on 1st priority.

▼ Factors to consider when hiring design manpower (Unit : %)

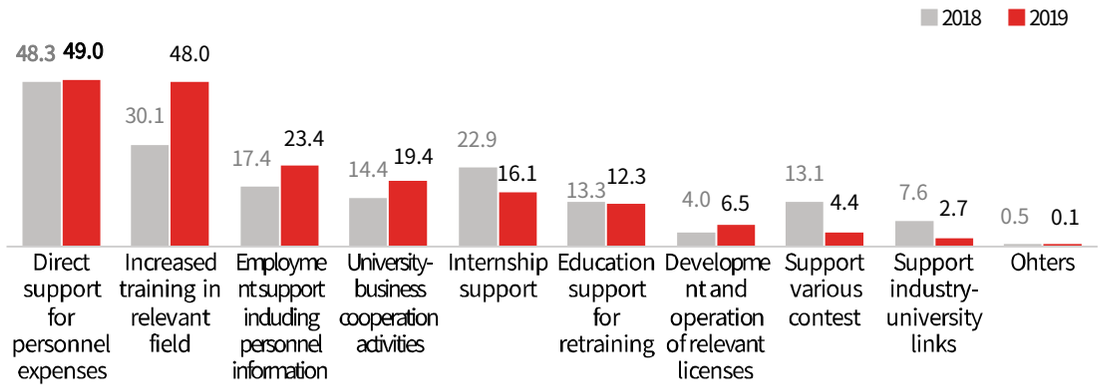


4. Demand for Government Support for hiring excellent manpower

- Concerning demand for government support for hiring excellent manpower(multiple responses allowed), 'Direct support for personnel expenses' accounts for the highest proportion with 49.0%, followed by 'Increased training in relevant field'(48.0%), 'Employment support including personnel information'(23.4%), 'University-business cooperation activities'(19.4%), etc.

▼ Demand for Government Support for hiring excellent manpower

(multiple responses, Unit : %)



▼ Demand for Government Support for hiring excellent manpower

(1st priority, Unit : %)

Classification	Increased training in relevant field	Direct support for personnel expense	University-business cooperation activities	Employment support including personnel information	Internship support	Education support for retraining	Support various contest	Development and operation of relevant licenses	Support industry-university links	Others
2019	**32.3**	**26.8**	**11.9**	**9.4**	**7.6**	**5.8**	**2.6**	**2.0**	**1.0**	**0.1**
2018	20.5	29.5	12.4	9.3	10.1	7.8	3.6	1.6	2.6	0.2

※ None : 0.4%

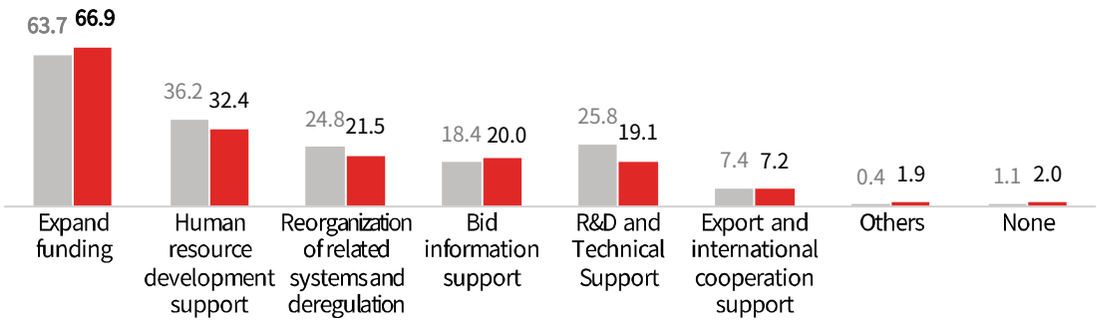
07 Others

1. Demand for Government Support for Business Activation

- Regarding demand for government support for business activation, ‘Expand funding’ accounts for the highest proportion with 79.0%, followed by ‘Human resource development support’ (36.3%), ‘R&D technical support’ (23.7%), ‘Bid information support’ (20.6%), etc.

▼ demand for government support for business activation

(multiple responses, Unit : %)



▼ demand for government support for business activation

(1st priority, Unit : %)

Classification	Expand funding	Human resource development support	R&D and technical support	Bid information support	Reorganization of related systems and deregulation	Export and international cooperation support	Others
2019	**64.3**	**18.4**	**5.9**	**4.7**	**4.6**	**1.2**	**0.1**
2018	48.5	23.4	7.6	7.7	7.3	2.3	1.3

03

Public Sector

2020 KOREA DESIGN STATISTICAL DATA

01 Status of Design Departments

1. Agencies with a Design Department

- Among Central and local government, those 'with a design department' reached 34.6%, which is similar with the previous year(34.8% in 2018).

▼ Changes in Status of design Department (Unit : %)

Classification	2014	2015	2016	2017	2018	2019	YoY
Having design departments	47.7	36.6	32.8	38.8	34.8	34.6	▼ 0.2
Not having design departments, but having designers	9.3	15.9	17.3	17.2	17.8	19.9	▲ 2.1
Having neither design departments nor designers	43.0	47.5	49.8	44.0	47.4	45.5	▼ 1.9

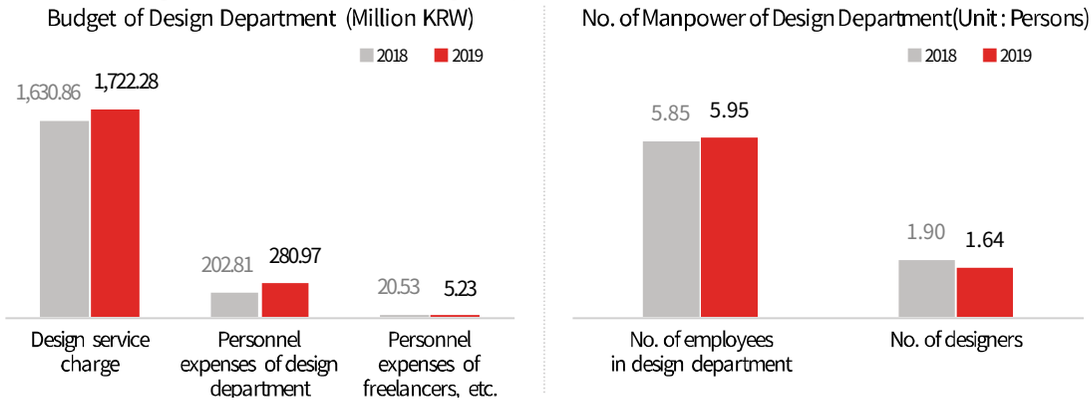
▼ Changes in Status of design Department by type (Unit : %)

Classification		Having design departments	Not having design departments, but having designers	Having neither design departments nor designers
Total		**34.6**	**19.9**	**45.5**
Type	Central government	6.5	54.8	38.7
	Local government	38.3	15.3	46.4
	- City/ province	82.4	5.9	11.8
	- City/ country/ district	34.9	16.1	49.1

2. Status of Budget and Manpower of Design Departments

- Concerning the budget of design department, average amount of design service charge reached 1,722.28 million KRW, personnel expenses of design department reached 280.97 million KRW and personnel expenses of freelancers reached 5.23 million KRW. Average number of design department reached 5.95 (5.85 in 2018), and designers reached 1.64 (1.90 in 2018), decreased compared to the previous year.

▼ Status of budget and manpower of design department (Unit : %)



▼ 업Status of budget and manpower of design department by type

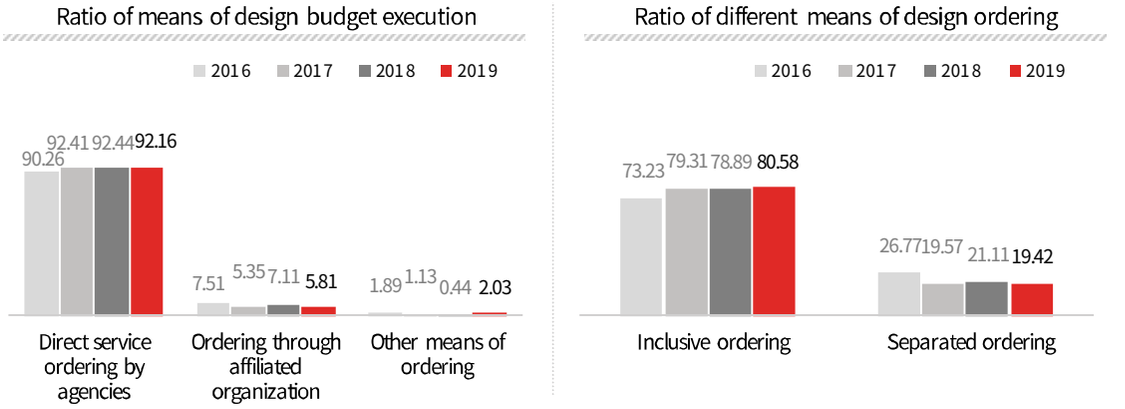
Classification		Average budget of design depart. (Million KRW)			Status of manpower (Persons)	
		Design service charge	Personnel expenses	Personnel expenses of freelancers, etc	Average no. of employees	Average no. of designers
Total		**1,722.28**	**280.97**	**5.23**	**5.95**	**1.64**
Type	Central government	30,475.00	379.50	0.00	11.00	1.47
	Local government	1,083.33	278.78	5.34	5.83	1.67
	- City/ province	4,602.00	404.71	21.43	7.86	1.93
	- City/ country/ district	435.16	255.58	2.38	5.46	1.63

02 Status of Design Industry Management

1. Proportions of Means of Budget Execution and Design Ordering

- Regarding the execution of design related budget, ‘Direct service ordering by agencies’ reached 92.16%, but ‘Ordering through affiliated organization’ (5.81%) and ‘Other means of ordering’ (2.03%) show lower proportion.
- In design service ordering, the percentage of orders that included a design project reached 80.58%, which is similar with the last year(78.89%).

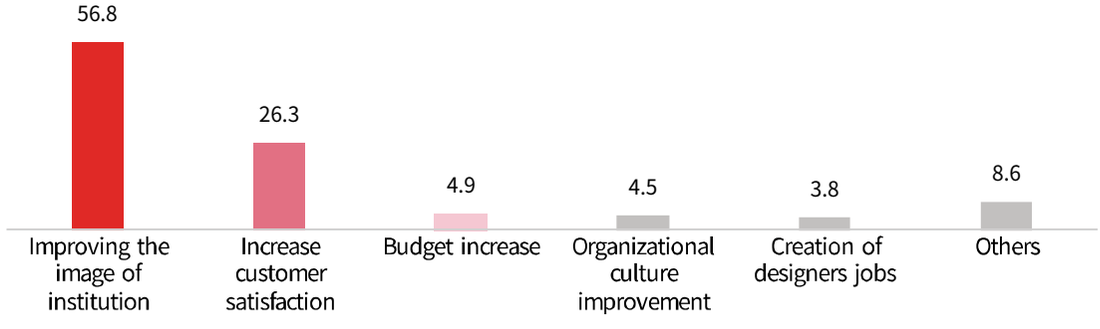
▼ Proportions of Means of Budget Execution and Design Ordering (Unit : %)



2. Effect of Design Investment

- Concerning the effect of design investment, ‘Improving the image of institution’ accounts for the highest proportion with 56.8%, followed by ‘Increase customer satisfaction’(26.3%), ‘Budget increase’(4.9%), etc.

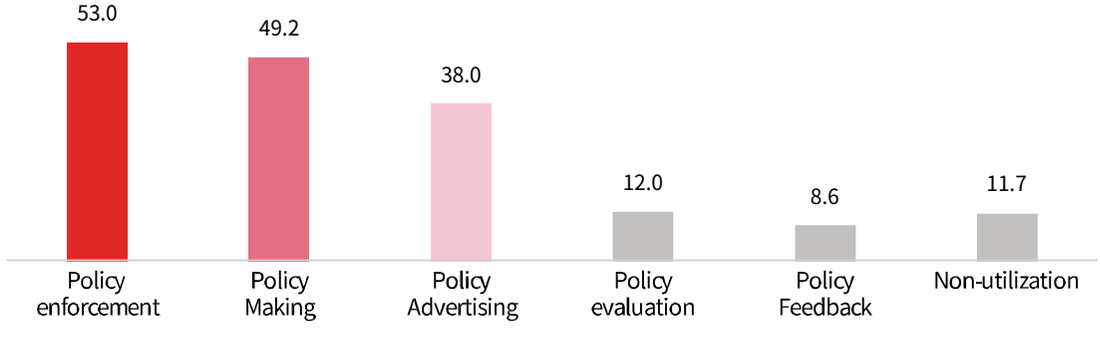
▼ Effect of Design Investment (multiple response, Unit : %)



3. Utilization of Design in Public Policy Process

- Regarding utilization of design in public policy process, ‘Policy enforcement’ accounts for the highest proportion with 53.0%, followed by ‘Policy Making’(49.2%), ‘Policy Advertising’(38.0%), etc.

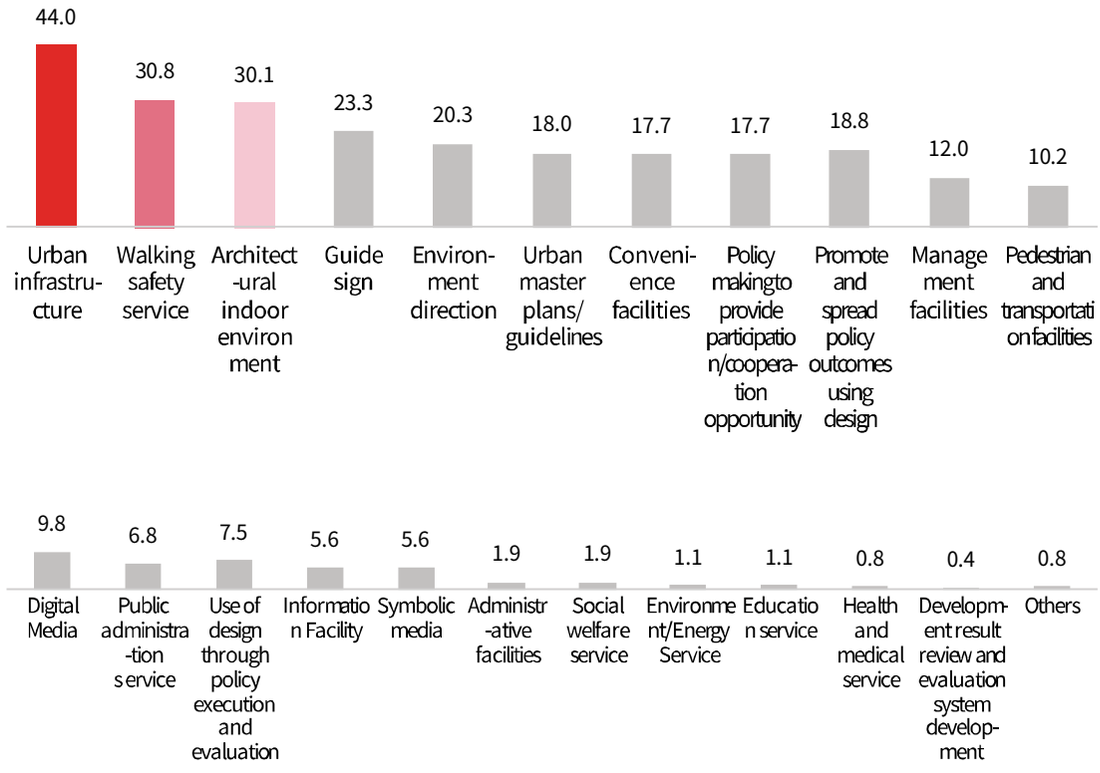
▼ Utilization of Design in Public Policy Process (multiple response, Unit : %)



4. Fields of design utilization

- Concerning the fields of design utilization, ‘Urban infrastructure’ accounts for the highest proportion with 44.0%, followed by ‘Walking·safety service’(30.8%), ‘Architectural indoor environment’ (30.1%), ‘Guide sign’(23.3%), etc.

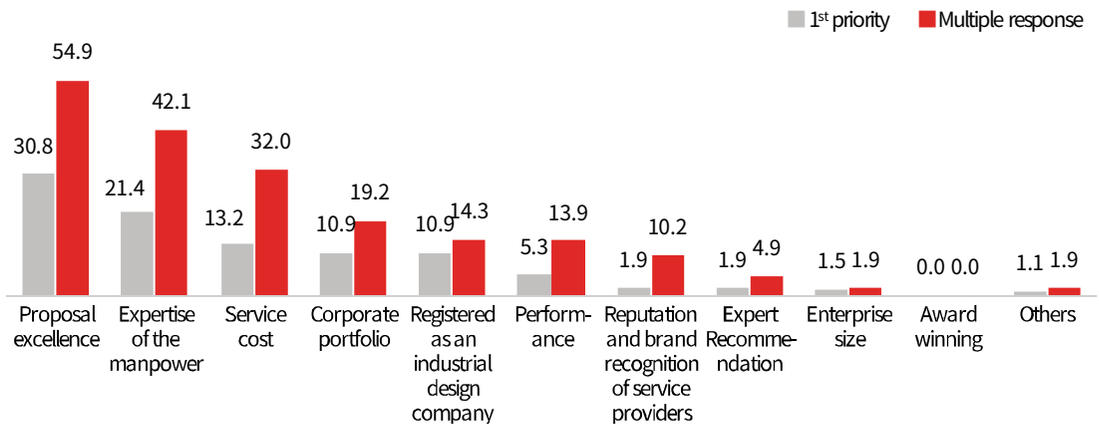
▼ Fields of design utilization (multiple response, Unit : %)



5. Factors to consider when selecting design-related company/experts

- Regarding factors to consider when selecting design-related company/experts, it is presented as ‘Proposal excellence’ (54.9%), ‘Expertise of the manpower’ (42.1%), ‘Service cost’(32.0%), etc.
- ‘Proposal excellence’ accounts for the highest proportion with 30.8%, based on 1st priority as well.

▼ Factors to consider when selecting design-related company/experts (Unit : %)



2020 KOREA DESIGN STATISTICAL DATA

04

Design-related Institutions of Higher Education

2020 KOREA DESIGN STATISTICAL DATA

01 Status of Department of Design

1. 2020 Status of Universities/Graduate Schools with Design Departments

(Unit : Number)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctor's degree	Total
2020	242	128	58	428
2019	243	135	57	435
YoY	**▼ 1**	**▼ 7**	**▲ 1**	**▲ 5**

▼ Number of universities/graduate schools with design departments by university type (Unit : Number)

Classification		No. of universities/graduate schools			
		Bachelor's degree	Master's degree	Doctor's degree	Total
Total		**242**	**128**	**58**	**428**
Univ. Type	Junior college	86	-	-	86
	University	129	-	-	129
	Industrial college	2	-	-	2
	University(college)	1	-	-	1
	Graduate college	-	128	58	186
	Cyber college	9	-	-	9
	Major college[15]	1	-	-	1
	Functional college	14	-	-	14

2. Number of department of design 2020

(Unit : Number)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctor's degree	Total
2020	882	217	85	1,184
2019	863	217	79	1,159
YoY	**▲ 19**	**-**	**▲ 6**	**▲ 25**

▼ Number of department of design by university type (Unit : Number)

Classification		No. of universities/graduate schools			
		Bachelor's degree	Master's degree	Doctor's degree	Total
Total		**882**	**217**	**85**	**1,184**
Univ. Type	Junior college	353	-	-	353
	University	464	-	-	464
	Industrial college	18	-	-	18
	University(college)	1	-	-	1
	Graduate college	-	217	85	302
	Cyber college	18	-	-	18
	Major college	4	-	-	4
	Functional college	24	-	-	24

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2020

15) Junior college is a formal higher education institution under the Higher Education Act, which awards professional degrees and bachelor's degrees. Major colleges are accredited by the Ministry of Education, Science and Technology under the Continuing Education Act.

▼ Number of department of design by major (Unit : Number)

Classification		No. of universities/graduate schools			
		Bachelor's degree	Master's degree	Doctor's degree	Total
Total		**882**	**217**	**85**	**1,184**
Major	General design[16]	76	54	28	158
	Product design	134	33	8	175
	Visual design	145	16	6	167
	Digital/multimedia design	117	15	6	138
	Space design	143	24	8	175
	Fashion/textile design	176	39	8	223
	Service/experience design	27	13	9	49
	Industrial craft design	44	15	8	67
	Design infrastructure	20	8	4	32

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2020

02 Students in the Department of Design

1. Number of students in design departments at Universities/graduate schools

(Unit : Persons)

Classification	No. of students		
	Registered students	Currently enrolled students	Students on leave of absence
2020	106,885	78,643	28,242
2019	104,511	76,535	27,976
YoY	▲ 2,374	▲ 2,108	▲ 266

▼ Number of students in design departments at Universities/graduate schools by university type (Unit : Persons)

Classification		No. of students											
		Registered students				Currently enrolled students				Students on leave of absence			
		Bachelor's degree	Master's degree	Doctor's degree	Total	Under-graduate	Master's course	Doctor-ate	Total	Under-graduate	Master's course	Doctor-ate	Total
전체		**101,330**	**4,075**	**1,480**	**106,885**	**74,058**	**3,354**	**1,231**	**78,643**	**27,272**	**721**	**249**	**28,242**
Univ. Type	Junior college	31,623	-	-	31,623	22,024	-	-	22,024	9,599	-	-	9,599
	University	61,975	-	-	61,975	46,239	-	-	46,239	15,736	-	-	15,736
	Industrial college	529	-	-	529	408	-	-	408	121	-	-	121
	University(college)	148	-	-	148	124	-	-	124	24	-	-	24
	Graduate college	-	4,075	1,480	5,555	-	3,354	1,231	4,585	-	721	249	970
	Cyber college	3,610	-	-	3,610	3,081	-	-	3,081	529	-	-	529
	Major college	1,096	-	-	1,096	726	-	-	726	370	-	-	370
	Functional college	2,349	-	-	2,349	1,456	-	-	1,456	893	-	-	893

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2020

16) General design is a department whose design major does not fall into eight major categories. It includes design, design major, etc.

03 Graduate and Employment

1. Status of Graduates from Design Departments and Employment

▼ Status of graduates and employment of departments of design (Unit : Persons)

Classification	Status of graduates and employment		
	Graduates	Graduates(A)	Employment(B)
2019	20,920	18,404	12,178
2018	21,975	19,650	13,014
YoY	**▼ 1,055**	**▼ 1,246**	**▼ 836**
YoY(%)	**▼ 4.8%**	**▼ 6.3%**	**▼ 6.4%**

▼ Status of graduates and employment of departments of design by university type and major (Unit : Persons)

Classification		Status of graduates and employment											
		Graduates				Graduates(A)				Employment(B)			
		Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total
Total		**20,276**	**496**	**148**	**20,920**	**18,015**	**294**	**95**	**18,404**	**11,890**	**212**	**76**	**12,178**
Univ. Type	Junior college	8,733	-	-	8,733	7,404	-	-	7,404	5,063	-	-	5,063
	University	10,713	-	-	10,713	9,864	-	-	9,864	6,238	-	-	6,238
	Industrial college	112	-	-	112	104	-	-	104	74	-	-	74
	University(college)	13	-	-	13	12	-	-	12	9	-	-	9
	Graduate college	-	496	148	644	-	294	95	389	-	212	76	288
	Cyber college	705	-	-	705	631	-	-	631	506	-	-	506
Major	General design	1,579	294	59	1,932	1,395	158	33	1,586	885	118	30	1,033
	Product design	3,263	39	26	3,328	2,891	29	19	2,939	1,915	26	13	1,954
	Visual design	3,587	24	7	3,618	3,221	17	0	3,238	2,065	14	0	2,079
	Digital/multimedia design	2,616	17	3	2,636	2,346	11	1	2,358	1,502	3	1	1,506
	Space design	3,281	29	7	3,317	2,852	20	7	2,879	1,932	14	6	1,952
	Fashion/textile design	4,094	26	8	4,128	3,681	12	8	3,701	2,474	5	6	2,485
	Service/experience design	484	23	5	512	430	17	1	448	306	12	1	319
	Industrial craft design	816	15	33	864	700	8	26	734	446	4	19	469
	Design infrastructure	556	29	0	585	499	22	0	521	365	16	0	381

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base Date: December 31, 2019

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc.
When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorship, Freelancers

2. Status of Graduates from Design Departments and Employment Rate

▼ Status of Graduates from Design Departments and Employment Rate (Unit : Persons)

Classification	Status of graduates and employment		
	Graduates(A)	Employment(B)	Employment rate(C=B/A, %)
2019	18,404	12,178	66.2
2018	19,650	13,014	66.2
YoY	**▼ 1,246**	**▼ 836**	**0.0%p**
YoY(%)	**▼ 6.3%**	**▼ 6.4%**	

▼ Status of Graduates from Design Departments and Employment Rate by university type and major (Unit : Persons)

Classification		Status of graduates and employment											
		Graduates(A)				Employment(B)				Employment rate(C=B/A, %)			
		Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total
Total		**18,015**	**294**	**95**	**18,404**	**11,890**	**212**	**76**	**12,178**	**66.0**	**72.1**	**80.0**	**66.2**
Univ. Type	Junior college	7,404	-	-	7,404	5,063	-	-	5,063	68.4	-	-	68.4
	University	9,864	-	-	9,864	6,238	-	-	6,238	63.2	-	-	63.2
	Industrial college	104	-	-	104	74	-	-	74	71.2	-	-	71.2
	University(college)	12	-	-	12	9	-	-	9	75.0	-	-	75.0
	Graduate college	-	294	95	389	-	212	76	288	-	72.1	80.0	74.0
	Cyber college	631	-	-	631	506	-	-	506	80.2	-	-	80.2
Major	General design	1,395	158	33	1,586	885	118	30	1,033	63.4	74.7	90.9	65.1
	Product design	2,891	29	19	2,939	1,915	26	13	1,954	66.2	89.7	68.4	66.5
	Visual design	3,221	17	0	3,238	2,065	14	0	2,079	64.1	82.4	0.0	64.2
	Digital/multimedia design	2,346	11	1	2,358	1,502	3	1	1,506	64.0	27.3	100.0	63.9
	Space design	2,852	20	7	2,879	1,932	14	6	1,952	67.7	70.0	85.7	67.8
	Fashion/textile design	3,681	12	8	3,701	2,474	5	6	2,485	67.2	41.7	75.0	67.1
	Service/experience design	430	17	1	448	306	12	1	319	71.2	70.6	100.0	71.2
	Industrial craft design	700	8	26	734	446	4	19	469	63.7	50.0	73.1	63.9
	Design infrastructure	499	22	0	521	365	16	0	381	73.1	72.7	0.0	73.1

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2018

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc.
When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employment rate: Employed/{Graduates-(Advanced+Enlisted+Unable to work+Excluder+Foreign students)}*100

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorship, Freelancers-

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