



Changes in the Employment Environment of the Beauty Industry in Republic of Korea: A Critical Review

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Abstract

Purpose: Convergence and social ripple effects caused by the Fourth Industrial Revolution, which encompasses new technologies in various fields, will have a great impact on the beauty industry structure and market economy. This review reviewed the literature on the changes in the employment environment of the Korean beauty industry due to the 4th industrial revolution and the countermeasures of the beauty industry accordingly. **Research design, data and methodology:** Using the October 2022 PRISMA flowchart, it is a review of changes in the employment environment of the beauty industry, the need for human resource management of beauty workers, and the employment environment to be applied to the beauty industry in the future. **Results:** Changes in the employment environment in the era of the 4th Industrial Revolution, the current state of the beauty industry, and reviews on beauty industry workers were collected, and a direction for training beauty industry workers was presented. **Conclusions:** This study presented the direction of the beauty industry in preparation for changes in the employment environment of the 4th industrial revolution and suggested that research is needed to actively establish human resource management (HRM) to overcome the problem of fostering talent in the beauty industry.

Keywords : The 4th Industrial Revolution, Changes in the Employment Environment, Beauty Service Industry, Beauty Service Employees.

JEL Classification Code : J21, J24, J28, O14, O15

1. Introduction

The 4th Industrial Revolution refers to technological convergence in which the boundaries of physical space, digital space, and bioengineering space are diluted based on digital revolutions such as IT and electronic technology (Schmitt, 2015). The Fourth Industrial Revolution, formalized at the World Economic Forum (WEF) in February 2016, is artificial intelligence (AI), augmented reality (AR), Internet of Things (IoT), mobile, big data, cyber-physical systems, nanotechnology, and biotechnology.

It refers to the revolutionary change encompassing the convergence and social ripple effect of new technologies in various fields such as (Kim, 2022). It is predicted to have a significant impact on the global industrial structure and market economy model (Kim, 2022).

The characteristic of the 4th industrial revolution is its exponential speed. Also, it is an unprecedented paradigm shift of individuals, economies, businesses, and cases by combining various science and technologies. It is an unprecedented paradigm shift in individuals, economies, companies, and cases by combining various science and technologies. A system

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shock is presented that accompanies changes in the entire system of countries, companies, industries, and society (Schwab, 2016; Jang, 2018). The 4th Industrial Revolution presents three major characteristics: Hyper-Connection, Hyper-Intelligence, and Hyper-Low Latency (Park, 2020). As the era of the Fourth Industrial Revolution began, various technological revolutions are rapidly changing the organizational behavior of companies and individuals (Morrar et al., 2017). It has been confirmed that AR technology will change the future of shopping (Lee & Kwon, 2021; Seo & Kwon, 2022). The fourth industrial revolution is being accelerated by technological innovation, production innovation, and educational innovation.

The technologies of the 4th industrial revolution are accelerating disruptive changes by combining them with various industries (Schwab, 2017). In modern society, humans attach beauty as a very important value in their lives. The cosmeceutical industry continues to be a growing and in demand market, especially in Asia (Juhász et al., 2018). Individual companies are also making efforts to respond to the era of the 4th industrial revolution. Typical examples include conversion to individual customized beauty frames through augmented reality technology, market development through active use of e-commerce, and application of smart factory technology in the production stage. Changes are also taking place in the field of marketing. In particular, the 4th Industrial Revolution is promoting customized production across all industries. (Koo & Kwon, 2023).

It is also an era in which a system that can select various customized cosmetics suitable for individuals using the online beauty market is needed (Ma & Kwon, 2021). With the progress of the 4th industrial revolution, the relationship between a company and its customers is changing from a vertical relationship to a horizontal relationship, from one-way communication to two-way communication, and from an exclusive relationship to an inclusive relationship. The demand for personalized cosmetics is rapidly increasing. Nearly half of consumers like the idea that beauty products are tailored especially for themselves.

This phenomenon is bringing about the growth of the beauty industry that prefers its own new trend due to the diversification and personalization of consumption patterns. Currently, medical and ICT technologies are being applied to the beauty industry in the beauty industry. It is necessary to prepare for the future with personalized products and services by actively combining artificial intelligence (AI), big data analysis, and virtual reality (VR) throughout the beauty industry such as skin care. Innovative technology and beauty industries met, and a new type of beauty tech era arrived (Kim, 2022; Kang et al., 2019).

The use of the beauty industry app platform can bring new consumption patterns and job opportunities

and trigger more business behavioral activities (Chang & Hsu, 2022). The environment is defined as a set of all elements that exist on the external boundary of an organization and are directly or indirectly related to the organization. Since it is determined by the structure of the labor market or the surrounding environment, it is understood differently depending on the position of the country, region, and the person defining it. Since it is determined by the structure of the labor market or the surrounding environment, it is understood differently depending on the position of the country, region, and the person defining it. Rapid technological change and development, and globalization of the economic environment are affecting the survival and failure of companies. Companies that want to keep pace with the change are implementing restructuring, and corporate activities are influencing employment management policies such as production methods, employment methods, and compensation methods by employers (Kwon, 2006; Heo, 2017). Corporate labor flexibility, such as restructuring due to changes in the employment environment, various forms of employment adjustment, and changes in legal and institutional employment safety devices, can deepen job instability of members (Turnley & Feldman, 1999).

2. Literature Review

2.1. Changes in the Employment Environment

Employment diversification is an international trend in the labor market for flexibility and deregulation. It can be summarized as changes in the labor market due to mass unemployment after the financial crisis, changes in corporate manpower utilization strategies, and the need on the supply side to expand household income (Lee & Huh, 2004). Increasing labor flexibility to increase corporate management efficiency is not only a legal prerequisite. The development of information and communication technology. It is caused by various factors such as rapid business environment and changes in employees' values (Huh et al., 2006). Changes in the employment environment are not only individuals, but also as performing multiple jobs per person and the emergence of new jobs. The results of changes in the employment environment in various forms, such as reduction of manpower through downsizing of companies, job integration between departments, layoffs, voluntary retirement, and increased service and outsourcing, are emerging (Kalleberg, 2009).

2.2. Beauty Industry

The detailed businesses of the beauty service industry include hair, nail, makeup, aesthetics, dermatology, plastic surgery, dentistry, beauty healthcare, silver care, beauty medical tourism, and

beauty food. The beauty industry refers to activities or businesses that are directly related to beautifying a person's appearance. The beauty industry is largely divided into three categories: beauty manufacturing, beauty service, and beauty-related businesses. It is not limited to the cosmetic industry, but it is an industry that includes everything that experiences and consumes services to keep the body beautiful and healthy (Lee, 2016). The beauty service industry is a value-mixed industry that creates new demand in connection with health, medical care, culture, art, science, life, and emotion. The beauty service industry is a labor-intensive service industry. Price and demand are determined by the comparative advantage of service quality by hand technology over the quality of intermediate goods such as goods and equipment (Won, 2009). The beauty industry is a high value-added industry based on human resources such as artistic sense, creativity, and experience. The 4th industrial technology is showing tremendous positive synergy in various industries by complementing the limitations of human attributes (Kim, 2022).

2.3. Beauty Service Employees

A beauty service employee is a person who uses chemical and physical techniques to beautify people's appearance in areas such as hair, makeup, nails, and skin in the general sense. It refers to a person who performs service work in the beauty service field (Jo, 2019). However, it is not just providing appearance-related services. It provides services that can make your appearance stand out with deep knowledge and skills related to beauty. In addition, by creating a design that considers the physical and emotional aspects of the customer, it can be defined as a person who complements the shortcomings and maximizes the advantages to satisfy the aesthetic and functional parts together to make the appearance stand out (Park et al., 2016). Beauty workers should be able to satisfy and satisfy customers' needs through technical directing and service spirit that considers their tastes to meet their needs (Needs) as a job that provides human services with personality, theoretical knowledge, and technical skills (Park & Lee, 2020). Therefore, beauty workers are required to have knowledge and skills as well as various abilities.

3. Materials and Methods

This study is a literature review, and it is a review of changes in the employment environment and the beauty industry. It was written by referring to keywords such as the 4th Industrial Revolution, the beauty service industry, changes in the employment environment, and workers in the beauty industry. This review study was conducted by searching PubMed, Google Scholar, Scopus, Riss, and ResearchGate. A

total of 430 papers were searched, 56 of which were finally included in this study on the PRISMA flowchart as shown in Figure 1. The status of the beauty industry and the importance of human resource management (HRM) and the importance of coping with changes in the employment environment caused by the 4th industrial revolution were reviewed and the direction of development of the beauty industry was suggested. shown as a Figure 1.

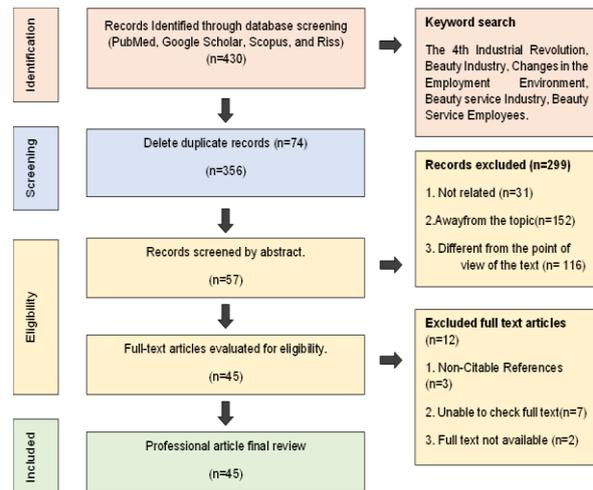


Figure 1: PRISMA flow diagram for literature review search results

4. Results

4.1. Employment Environment of Korea's Beauty Industry in the 1st~3rd Industrial Era

4.1.1. Employment Environment in the 1st to 3rd Industrial Era

In the 1780s, under the leadership of Britain and Germany, the first industrial revolution greatly improved productivity as machines replaced human work with mechanization of production methods. As an innovative technology, the factory production system using machinery was opened with the invention of the steam engine, and the labor force moved from agriculture to manufacturing. It started with the development of the textile industry and promoted the development of the coal industry, iron industry, and chemical industry. Individual technological innovation promoted industrial development in various fields through interconnection (Song, 2017). The Second Industrial Revolution was led by the United States, Japan, and Germany from the 1870s. Factory automation and mass production by electricity have brought about continuous improvement in productivity. In 1914, Hanley ford entered the T-type automobile production system and mass production system.

Electricity began to be used in mass production systems. As a result, large enterprises took the lead in

economic growth, and economies of scale were realized, resulting in a significant increase in employment (Ahn & Lee, 2016). The third industrial revolution was an information and communication technology revolution that appeared in the 1970s led by the United States and Japan, and intangible information was rapidly circulated through networks. The growth of new industries eventually led to the creation of new jobs on the other hand, as the spread of personal computers and rapid and vast exchange of information became possible, it gradually became mechanized and informational, and the labor force decreased.

4.1.2. Korea's Beauty Industry in the 1st to 3rd Industrial era

Korea's beauty service industry was first institutionalized with the enactment of the Hairdresser Act in 1961, starting with the first hairdresser qualification test in 1949. Until 1970, when technology competition was in progress, anyone could open a beauty salon with beauty technology, and social

awareness of hairdressers was low. As the standard of living improved along with economic growth, the beauty industry in the 1980s grew rapidly, and famous overseas brands such as *L'Oreal* and *Wella* entered the domestic beauty market. In the 1990s, the concept of marketing was introduced to hair salon management, and a beauty salon with its own name was created as a differentiation and promotion strategy. At the same time, large franchises began to appear. Since the 2000s, it has been subdivided into hair and beauty services, facial beauty services, and the whole-body beauty (skin care, foot care, nail care) services (Jeong, 1999). The beauty service industry, which is mainly physically and chemically performed on the human body using cosmetics and beauty-related devices and equipment, has various legal restrictions such as qualification systems due to the importance of health and hygiene. It has characteristics such as manpower-centered industriality, small size, high turnover rate of employees (An, 2014), and franchization shown as a Table 1.

Table 1: Employment Environment of Korea's Beauty Industry in the 1st~3rd Industrial Era

NO	Journal name	Author	Year	Discussion
1	Korean Academic Society Of Business Administration	Ahn, S. H., & Lee, M. H.	2016	In the second industrial revolution, employment increased significantly due to factory automation and mass production by electricity.
2	Journal of the Korean Academy of Beauty	Jeong K. S.	1999	Marketing concept introduced into management
3	The Korean Beauty Management Journal	An S. N.	2014	It has characteristics such as manpower-centered industriality, small size, high turnover rate of employees, and franchiseization
4	Sejong: Research Institute for Science and Technology Policy	Song S. S.	2017	It began with the development of the textile industry and promoted the development of coal, iron, and chemical industries
5	Sogang University Graduate School of Business Administration	Lee J. H.	2020	It was institutionalized for the first time with the enactment of the Hair and Beauty Law

4.2. Employment Environment of Korea's Beauty Industry in the Era of the 4th Industrial Revolution

4.2.1. Employment Environment in the 4th Industrial Era

The characteristic of the Fourth Industrial Revolution is that the boundaries of each area are broken, and creative convergence based on horizontal, open, and diversity (Lee, 2017; Kim, 2017). The notable characteristic of the 4th Industrial Revolution is 'Hyper-Intelligence', which demonstrates high performance through deep learning, an artificial neural network, with vast amounts of big data secured through hyper-connection. The connection and convergence of artificial intelligence (AI) and big data, which are the main drivers of change in the 4th Sun Industry Revolution, makes technology and industrial structure "ultra-intelligent (Kim, 2017)."

However, in the case of the 4th Industrial

Revolution, it should be noted that the person who is the subject of production is replaced by artificial intelligence or robots. A significant number of previous studies predict a decrease in jobs due to the replacement of the labor force due to the 4th industrial revolution. The 4th industrial revolution has different effects on jobs depending on the job, but some jobs have been automated. It's not just affecting the low-skilled, low-wage, workers involved in repetitive work. Even jobs that require significant education and training, such as journalists, teachers, and lawyers, will be able to be performed (Lee, 2017). The beauty industry has begun to introduce advanced technologies of the 4th industrial revolution to provide more personalized and accurate beauty services. In the cosmetics industry, it is important for AI beauty devices to have key information to analyze individual characteristics of consumers. It is said that unmanned technology products such as automation by artificial intelligence, robots, drones, and unmanned vehicles can replace the labor force and significantly reduce

people's jobs (Kim, 2017).

They argue that the problem lies not in the replacement of labor, but in the 'skill gap'. They said that employment may be sluggish in industries with low-intermediate computer use, but in the case of industries with high-intermediate computer use, cost reduction and market expansion through automation can increase employment in the field. The most serious negative effect of the 4th industrial revolution is job loss. As the skills required for work change, we anticipate the importance of re-education and re-employment in a rapidly changing society (Fu, 2019).

4.2.2. The Fourth Industrial Revolution in Korea's Beauty Industry

Korea is the country that most actively accepts industrial robots. It released a report that it will become the world's leading robot introducer, replacing 40% of the manufacturing industry with robots in 2025. In recent years, the scope of industries using 3D printers such as medicine, food, beauty, and education has been expanded. This can also be found in the nail industry. Artificial intelligence and augmented reality, the core technologies of the 4th industrial revolution, are combined with nail art. The nail printing machine is an innovative technology that realizes three-dimensional expression beyond the limit of expression of the existing two-dimensional painting design technique.

Through augmented reality, it is possible to arbitrarily view and determine the virtual appearance after the procedure. Features a wide range of design options. Artificial intelligence and augmented reality, the core technologies of the 4th industrial revolution, are combined with nail art (Kim, 2019). With the development of smartphones, more and more consumers are downloading and actively using various apps necessary for daily life. It is a convenient and interesting hair application app that allows you to virtually apply your desired hairstyle in advance before visiting a hair salon. It analyzes the database accumulated by itself through the convergence of big data and artificial intelligence. It identifies and recommends users' preferred hairstyles to provide high-quality services. As SNS through mobile becomes active, people feel aesthetic desire while seeing hairstyles that are frequently exposed to SNS. This spreads quickly and leads to actual procedure purchases, creating a trend (Kang, 2012).

Changes in the beauty industry environment include artificial intelligence (AI). Virtual reality (VR).

It is the use of augmented reality (AR). Smart mirrors, which are equipped with various functions by combining various technologies such as artificial intelligence and augmented reality, can often be seen in the form of advertising platforms in department stores, subways, and large discount stores. It is also used in the healthcare industry, such as obtaining traffic and parking information inside the bathroom of the rest area, checking the amount of exercise by recognizing movement, or recommending customized exercise. The hair beauty industry is enthusiastic about "Smart" as it accepts the era of intelligent information, the fourth industrial revolution. Smart mirrors dominate sales.' This is because the logic of can give differentiation. It can be also checked the scalp condition, pay system, and shop and video content.

It provides new care services with various functions that can greatly help customers make careful hairstyling decisions. Risk factors for postoperative incongruity will be reduced and satisfaction with the procedure will be improved (Jo, 2021). Based on a system with expertise and accumulated data, it is easy to manage customer information, sales, promote designers, and induce revisit. It is possible to relieve some of the job stress that hair designers had to experience in the process of providing consultation and services to customers in the past. However, it is not the only advantage at the corporate level. Fashion and beauty brands have their own direction that they have accumulated for a long time, such as brand stories and values. If we approach it as a home shopping method to increase sales and increase sales, the quality of the brand's perception can be reduced due to the word of mouth of the seller spreading in real time through streaming (Noh & Oh, 2020).

The 4th Industrial Revolution must provide support and infrastructure policies to lead international competition and transform it into an opportunity to address current socio-economic threats. The 4th Industrial Revolution is accompanied by expansion and destructive concepts. The preparation of response strategies for industries and companies should be made urgently. To this end, it was emphasized that the government's technology and industrial policies should be converted into consumer-centered policies so that the private sector's capabilities for commercialization-related technologies can be maximized (Kim, 2017). shown as a Tables 2.

Table 2: Employment Environment of Korea's Beauty Industry in the Era of the 4th Industrial Revolution

NO	Journal name	Author	Year	Discussion
1	Journal of Beauty Art Management	Kang MA.	2012	With the development of smartphones, more and more consumers are downloading and actively using various apps necessary for daily life.
2	The Boston Consulting Group	Lorenz M. et al.	2015	Korea is the country that actively accepts industrial robots.
3	The Atlantic	Bessen J.	2016	He argues that the problem is not in the replacement of

				labor, but in the "skill gap"
4	International Labor Brief	Mun S. W.	2016	It predicted the importance of re-education and re-employment in a changing society.
5	Journal of the Korean Society of Design Culture	Lee Y. K.	2017	It is a creative fusion based on horizontal, open and diversity.
6	Journal of Cultural Product & Design	Kim G.M.	2017	The technology and industrial structure will become 'super-intelligent' due to the connection and convergence of artificial intelligence (AI) and big data.
7	Studies of Social Security law	Lee K. T.	2017	Even jobs that require significant education and training, such as journalists, teachers, and lawyers, will be able to be performed
8	Journal of the Korean Magneitcs Society	Kim H. J.	2017	Unmanned technology products could replace the labor force, significantly reducing people's jobs
9	KERI Brief	Kim Y. K.	2017	Support and infrastructure policies should be in place to shift to opportunities to address current socio-economic threats.
10	Journal of Hotel & Resort	Han H.C. et al.	2017	It has released a report that it will become the world's top robot adopter.
11	The Korean Society of Beauty and Art	Kim S. Z.	2019	The scope of industries using 3D printers has expanded, which can also be found in the nail industry
12	Korea Academic Society of Franchising	Noh S. W. et al.	2020	There are not only advantages at the corporate level
13	Journal of Beauty Art Management	Jo J. W.	2021	Risk factors for postoperative incongruity will be reduced and satisfaction with the procedure will be improved

4.3. Industry Response Measures to Changes in the Employment Environment of the Korean Beauty Industry in the Era of the 4th Industrial Revolution.

4.3.1. A New Type of Beauty Tech Era

In Korea, the proportion of the service industry is increasing due to rapid economic development. As women's social advancement increases and men's interest in and desire for beauty increases, interest in beauty is rising. According to changes in social values, the beauty service industry is rapidly becoming more advanced, subdivided, and specialized. In Korea, the rapid economic development has increased women's social advancement and men's interest and desire for beauty, making the beauty industry more advanced, subdivided, and specialized. For the development and globalization of the beauty industry, a cooperative system is being established with leaders of beauty companies currently in the top group of the domestic beauty market and representatives of domestic brands advancing overseas.

It is said that it is important to establish a consultative body, such as information sharing and development plans, discussing resolving corporate difficulties, and providing information to companies wishing to enter overseas markets (Kwak et al., 2012). The application of the platform in the beauty industry is likely to positively change the business ecosystem throughout the beauty industry (Cho & Yoon, 2017). The beauty industry has created a new business model by introducing cutting-edge technologies from the 4th Industrial Revolution to provide more personalized and accurate beauty services. Innovative technology and beauty industries met, and a new type of beauty tech era arrived. Beauty Tech applied artificial intelligence (AI), the Internet of Things (IoT), big data, cloud, mobile, 3D printers, nanotechnology, and

biotechnology, which are major technologies of the 4th industrial revolution, to the beauty industry.

It refers to a beauty solution that provides customized services to individual consumers by applying it and allows them to experience it simply and professionally. After the 4th Industrial Revolution, as it became easier for consumers to obtain beauty information, new cultures such as "self-beauty care" and "self-beauty people" were created. The era of the 4th industrial revolution will be an era of experience when the era of knowledge and information is over (Kim, 2017).

4.3.2. Response of the Beauty Service Industry

Amorepacific, a Korean cosmetics company, is introducing a three-dimensional virtual makeup service and a VR (virtual reality) experience zone through its flagship store. LG Household & Health Care established a joint venture with a bio company to enter the customized cosmetics market based on consumer genetic analysis data. Cosmetics industries have designated Beauty Tech as a new growth engine and are seeking various attempts and partnerships (Kim, 2017).

Since the 4th Industrial Revolution, it has become easier for consumers to obtain beauty information, and new cultures such as "self-beauty care" and "self-beauty people" have also been created. The era of the 4th industrial revolution will be the era of experience when the era of knowledge and information is over. In the future, the beauty industry needs to prepare for somatization so that greater added value can be created by establishing customized strategies to respond to the new environment of the future society. The Fourth Industrial Revolution requires creative thinking throughout manufacturing, distribution, and customer service.

In order to achieve dominance in corporate

competition, creativity, which is the core of organizational success, must be developed and increased. In the beauty service industry, where human service is recognized as an important capital, various measures should be proposed to develop and increase the creativity of individual members (Park, 2020). Human Resource Management (HRM) demonstrates that through socially responsible human resource practices, it can be an important enabler for sustainable Industry 4.0 development. Strategic multi-stakeholder collaboration, holistic talent management, leadership change, comprehensive knowledge sharing,

and educational research should be conducted. Human Resource Management Needs to Reward Code Design Curriculum Sponsorship, Smart Skills to Improve and Maintain Skills, and Inclusive Industry 4.0 Ideas (Mukhty et al., 2022). To create a desirable beauty tech market, we must not let go of the value of human senses and application that the Fourth Industrial Revolution can never invade. A strategic approach is needed to build an efficient business model while coexisting with technology (Paek, 2019). shown as a Tables 3.

Table 3: Industry Response Measures to Changes in the Employment Environment of the Korean Beauty Industry in the Era of the 4th Industrial Revolution

NO	Journal name	Author	Year	Discussion
1	Journal of The Korean Society of cosmetology	Kwak H. S. et al.	2012	It was said that it was important to establish a consultative body, such as providing information to companies wishing to enter overseas markets
2	The Journal of Humanities and Social science	Cho Y. O. et al.	2017	The application of the platform in the beauty industry is likely to positively change the business ecosystem throughout the beauty industry
3	The Unified Korea	Lee D. H.	2017	Cosmetics industries have designated Beauty Tech as a new growth engine and are seeking various attempts and partnerships
4	Korean Society of Cosmetics and Cosmetology	Paek H. Y.	2019	Human resource management is needed as a reward for inclusive Industry 4.0 ideas
5	The Journal of Humanities and Social science	Park. J. S.	2020	The 4th industrial revolution requires creative thinking throughout manufacturing, distribution, and customer service.
6	Journal of Cultural Industry Studies	Yoon Y. D.	2020	The era of the 4th industrial revolution will be an era of experience when the era of knowledge and information is over
7	Business Strategy and the Environment	Mukhty S. et al.	2022	Need smart technology to sponsor and enhance and maintain training research and code design curriculum and need human resource management as a reward for an inclusive Industry 4.0 ideas

5. Conclusions

New technological innovations due to the 4th Industrial Revolution are expected to have a great influence on socioeconomic changes and the employment environment. As income level improvement and quality of life become more important, Korea's beauty industry is attracting a lot of attention as a growth industry that transcends gender and age in social and cultural development. It is expected to become more important in the future. In order to survive a new type of global economic war, it will be necessary to make a major transition in line with rapidly changing production and consumption trends. The beauty industry in Korea needs to prepare for somatization so that more added value can be created by establishing customized strategies in response to the new environment of the future society.

A strategic approach is needed to build an efficient business model while the value and technology of human senses, application power, and technology that the Fourth Industrial Revolution can never invade.

To actively respond to changes in the employment

environment of the beauty industry following the 4th Industrial Revolution, manpower that can cope with the introduction of high-tech should also be trained. In addition, it is necessary to focus education on having comprehensive judgment and complex problem-solving skills that are difficult to replace with AI. The direction of the beauty industry in preparation for the changes in the employment environment of the 4th industrial revolution was presented. It is necessary to actively establish human resource management (HRM) to overcome the problems of fostering the beauty industry and manpower in the beauty industry, and to change the perception of the service industry by establishing the development plan and future strategy of the Korean beauty industry. Therefore, in future research, it is required to expand employment-related topics according to the 4th industrial revolution and to conduct research on job stability and leading career behavior at the practical level.

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