INTRODUCTION

Since the World Health Organization (WHO) declared a fundemic due to the outbreak and spread of COVID-19, the prolonged period of COVID-19 has continued to shrink consumer sentiment due to social distancing and restrictions on physical movement. Therefore, physical restrictions on social activities caused by COVID-19 have accelerated non-face-to-face in various industries, uncertainty about the future caused by infectious anxiety and social risk, as well as perceptions of negative psychology, have also shown changes in consumer spending behavior. In addition, the online services industry is booming. On the other side, the face-to-face beauty industry, based on human services, is facing a crisis of stagnation, and the prolonged COVID-19 is taking on the crisis of shrinking and closing down the beauty industry. In the last 2 years, the human service infrastructure and face-to-face industry have been in recession, and the demand for offline sales floor use has naturally decreased in the beauty industry. With the COVID-19 pandemic phenomenon that started in 2019, people all over the world, including the Republic of Korea, have changed their lifestyles. Due to the prolonged coronavirus infection, the lifestyle has changed to non-contact and a home-based lifestyle. Most of the communication took place online, and the use...
K-pop, K-hair, K-makeup, K-skincare, K-nailart, and K-life commerce market is expanding, centered on mobile. Through the advantages of SNS. Korea is an IT powerhouse, the beauty industry field, there is a tendency to actively use SNS for public relations and customer guidance to increase profits based on the beauty industry market in the future.

In Korea's beauty ecosystem, In hair care, the company is moving toward attracting customers through a platform called Kakao Hair Shop. Instead of visiting offline stores, the self-nail market is growing rapidly. Due to the prolonged wearing of masks, problems have increased, and people are increasingly interested in home care for skincare. In makeup, the K-makeup trend has led to the K-makeup trend, and Korean style has been shared worldwide through SNS and YouTube influencer, increasing interest in K-beauty.

In this way, from the perspective of the beauty ecosystem before and after the coronafen pandemic in Korea and the long-COVID that is heading toward the endemic, we want to find out what changes have been made in the hair care, skin care, nail care, and makeup beauty industries. We also present the direction and sustainability of the beauty industry market in the future.

2 | METHODS

This review paper is a literature review, and a narrative review approach has been used for this study. A total of 100–200 references were selected using representative journal search websites such as Pubmed, Google Scholar, Scopus and Riss, of which a total of 24 papers were selected in the final stage based on 2017–2022 using PRISMA flow diagram as shown Figure 1.

3 | RESULTS

3.1 | Hair care

Recently, the social anxiety factor caused by the new coronavirus infection has seriously affected the business performance and sustainability of the hair beauty industry. The beauty industry is a contact and face-to-face service. So, people are reluctant to visit enclosed spaces or multi-purpose facilities such as hair shops. As a multi-use facility, hair shops are relatively close to each other, so, the frequency of visits to hair shops is decreasing due to the fear of infection with COVID-19. It is believed that the number of people is concentrated in a limited space, and it has been reduced due to consumer anxiety. This avoided contact with many people and found that they would visit a one person hair shop rather than a franchise that many people use. In order to revitalize the franchise hair shop, a platform called Kakao Hair Shop has recently appeared that allows you to select the desired beauty salon and time. Minimize contact, revitalizing offline shop visits. The Kakao Hair Shop can be seen as a typical example of systematically building an offline influx of customers through online today, when PCs and smartphones have become commonplace.

The pattern of waiting after making a phone reservation or visiting directly before visiting a hair shop in the past has been changed to a pattern in which the service can be received immediately after making a reservation on mobile. Although it is a device developed mainly for customer convenience, designers can easily allocate time during work and employment problems, and it becomes easier to manage customer data based on the advance reservation system. (No-Show) The problem is solved naturally, and there are advantages from the standpoint of a hair shop and a hair designer. It is possible to make a visit history or recommendation to a style book or hair shop that collects only your favorite hairstyles, and you can check the hair shop close to the current user's position in conjunction with the Kakao Map. Within the Kakao Hair Shop platform, consumers create reviews and share their experiences with others. It is a system that allows you to make a direct reservation with the designer you want at the same time, and it is possible to have a public relations effect and guide you to visit an offline shop. Communication through SNS is more effective than general public relations and advertising because customers in the service field have a great influence on their decision making based on the experience of others. That is why hair designers are also updating their portfolios through Instagram and Facebook to get customers to visit. Hairshops need to focus on efficient online booking services that anticipate individual customer behavior and respond quickly and provide customer satisfaction management and strategic marketing that reflects customer needs from a practical perspective. In addition, in the case of a multi-use facility such as a hair shop where an unspecified number of people gather, the risk of exposure to infectious diseases is relatively high. In operation of masks during treatment, installation of partitions between treatment seats, periodic epidemic prevention, provision of disinfectants, inspection of hygiene, installation of hand sanitizers and hand cleaners throughout the store, epidemic prevention in stores schedule report card is required shown as a Table 1. It is necessary to create such a thorough hygiene and an environment where infection by COVID-19 does not occur, and to provide information through marketing such as SNS, so that consumers can easily approach it. Attract new customers with hair shop promotions, it is possible to increase the visit rate by providing epidemic prevention and hygiene education for staff, informing customers of information about this, and reassuring customers.

3.2 | Skin care

Masks have become mandatory since November 13, 2020, to reduce the transmission of new coronavirus infections and block droplet infections, and skin problems caused by long-term use of masks have increased interest in skin health. It was diagnosed that wearing the
mask for a long time creates an environment with high temperature and humidity inside the mask, which causes a relative increase in sebum, waste products, and keratin formation, which may induce troubles due to the growth of microorganisms such as bacteria. The more you wear and take off the mask, the more it touches the skin. The friction of the mask and the components of the mask cause irritation to the skin, but such irritation may cause acne and contact dermatitis. As a result, domestic consumers have increased their usage of masks.
skin sensitivity and frequency of trouble due to long-term masks, and interest in basic cosmetics has increased. In addition, the proportion of cleaning cosmetics and hand creams increased. A restriction on face-to-face activities has occurred, the cosmetic purchase route has changed from offline to online. Due to the high interest of domestic consumers in beauty and the characteristic of trusting more personal information, the influence of beauty influencers spread rapidly. Online purchases will increase through reviews before and after use, and sales in the skin care field are expected to increase (Table 2). Due to the anxiety of infection caused by COVID-19 offline, we refrained from visiting the shop and took home selfcare. Although it is a pandemic situation, it was found that the consumption behavior of skin beauty was recognized as essential for self-management. In the pandemic, the higher the social risk, the more important it is to introduce others, blog, SNS, and Internet reviews. As consumers’ desire for skin beauty increases due to rapidly changing consumption trends, there is a need to improve the skin care room both internally and externally. It is a time when it is necessary to prepare alternatives to revitalize skin care service sales by systematizing specialized management programs and marketing tailored to the needs of customers by generation. Even during the COVID-19 period, it should reflect the characteristics of consumers’ purchasing motivation and on-tact trends to purchase skin care services. There is also an increasing tendency to select services by referring to skin care experience reviews and evaluations on SNS. Using SNS as a marketing tool is seen as a trend that will continue in the skincare industry after COVID-19.

### 3.3 | Nail care

After COVID-19, the home care beauty product industry is growing as beauty consumers are more interested in homecare products as they spend more time at home. Among them, in the nail industry, self-nail products are showing clear growth. Before COVID-19, people visited nail salons and invested a lot of time and money to manage them, but the time at home is getting longer and the self-nail market is expanding. The number of self-nails experienced increased, and interest in self-nails increased. Self-nails can be easily accessed at low cost by consumers choosing their own designs, and are not restricted by time and place. It is also easily accessible through various beauty pop-up stores or the Internet. Self-nail products also

| NO | Journal name | Author | Title | Discussion | Reference |
|----|--------------|--------|-------|------------|-----------|
| 1  | PhD Dissertation | Kim YH (2019) | The effect of perceived service quality of hair and beauty services on consumer behavior | Recently, social unrest caused by COVID-19 has a serious impact on the business performance and sustainability of the hair and beauty industry | 4 |
| 2  | MS Thesis | Kim M (2021) | A study on changes in hair shop visit behavior after the outbreak of COVID-19 | Since the hair salon is a multi-use facility, the treatment seats are relatively close, so it can be seen that the frequency of visiting the hair salon is decreasing due to the fear of infection with the Corona 19 | 5 |
| 3  | MS Thesis | Kim HJ (2022) | A case study of convergence and divergence of the domestic beauty industry following the 4th industrial revolution | We are minimizing contact and activating offline store visits. Kakao Hair Shop can be seen as a representative example of systematically establishing offline influx of customers through online channels today, where PCs and smartphones have become a daily life | 6 |
| 4  | PhD Dissertation | Lee E (2020) | Effect of online reservation service convenience on service value and customer satisfaction | It is necessary to provide an efficient online reservation service that predicts individual customer behavior and responds quickly, and conducts customer satisfaction management and strategic marketing | 7 |
| 5  | PhD Dissertation | Mun J (2022) | The effect of health awareness of beauty consumers in the era of COVID-19 on protection motives and health behavior intentions | It is necessary to wear a mask during the procedure, install a partition between the treatment seats, periodically quarantine, have a sterilizer, check sanitary conditions, provide hand sanitizer and hand sanitizer throughout the store, and notify the quarantine schedule in the store | 8 |
KIM and KWON have a variety of designs, so, you can decorate your nails according to your taste and personality by combining various designs rather than just using them as products. If you supplement your nail holding power according to the needs of consumers, the self-nail market is expected to continue after COVID-19. Self-nail introducing new trends and products related to nails through self-nail beauty programs, SNS such as YouTube and Facebook, self-nail blogs to raise the interest and involvement of self-nail consumers and improve self-nail technology and abilities. By providing related materials, it is necessary to activate marketing in the nail product market as a strategy for customer maintenance that enables consumers to continuously maintain self-nail in line with trends. Currently, the proportion of publicity through SNS is increasing day by day, and the conversion between nail shop users and self-nail users is rapidly taking place. Social media has come to meet new relational functions to make consumers feel more friendly than corporate advertisements, we have become more trust in the diverse content of influencers who can communicate with me. Based on these changes, recently, in the nail beauty industry, various marketing activities such as marketing centered on video content using YouTube or photograph-oriented characteristics of Instagram are being used to promote nail strategy products and sell products. The trust and affinity of SNS content increase the curiosity of offline stores and make information exchange between home beauty and self-nails active. Furthermore, direct visits to nail salons or product purchases naturally draw interest, and it is developing into a market that shares nail care services, product quality, usage methods, places of purchase, and satisfaction reviews through SNS media. The higher the procedure expertise and product expertise when visiting nail shops through SNS and social commerce, the higher the service satisfaction, convenience satisfaction, procedure satisfaction, and product satisfaction when visiting nail shops shown as Table 3. Professional nail salons improve customer management methods to increase adherence and friendliness, open self-nail classes, share management methods on social media channels, and introduce self-nail service programs. It will be possible to find a way to coexist with the expansion trend of the self-nail market.

### 3.4 Make up

Due to the COVID-19 pandemic, restrictions on activities, face-to-face contact with most cultural and educational activities have decreased, and non-face-to-face contact has increased. Surprisingly, however, attempts have been made throughout the beauty industry to turn the crisis of stagnation into an opportunity through new changes, fused and combined with the innovative technologies of the Fourth Industrial Revolution. Due to COVID-19, we naturally encountered K-content as the time to stay at home increased and the use of smartphones increased. Online, K-beauty grew as K-Pop and K-Drama became popular and interest in Hallyu stars increased, and interest in their fashion, hair style, makeup, and nail art naturally increased. K-beauty information was shared around the world through SNS and YouTube.
influencer. Domestic beauty products are emerging as popular content in the global market through IT technology and social network services. For example, ‘Squid Game’ reflected on Netflix topped all viewing countries. The fashion style of the squid game K-content has become popular all over the world. In addition, K-pop idol makeup such as BTS and BLACKPINK is being shared and spread by beauty creators with K-pop fans. K-beauty services are the main tourist products being developed, and the government is actively promoting them. In addition, as the trend of wellness, health, and healing blows around the world, the beauty service market that fosters itself grows further, and K-makeup targeting foreign tourists with these complex factors is pioneering a wider market. K-Beauty has also increased exports during the pandemic and has established itself as a growth engine of the Korean economy, driven by cosmetics, which were traditional domestic industries. K-beauty, which started in China and Southeast Asia, is now rapidly expanding its scope beyond the Asian market to the United States, the Middle East, and Europe. There is a boom in "Imitating Korean makeup" among American and European women through the Internet or YouTube videos. Makeup experts agree that the beauty field that foreigners are interested in is Korean women’s natural skin expression makeup and point makeup that emphasizes with a point in one place. For beauty management, alternative makeup that can maintain and manage healthy beauty including lifestyle on health and sustainability (LOHAS) is gaining interest and popularity, and the makeup industry that emphasizes naturalness rather than plastic surgery, which supplements the face line and face shape with technical medical methods, is becoming more active. Looking at overseas makeup trends, in Malaysia, K-makeup is popular where you can make up for your shortcomings and emphasize beautiful parts naturally without changing certain parts of your face. In Japan, it is showing continuous growth through differentiation strategies such as pioneering product categories with commercialization armed with technological prowess or introducing locally customized products. Innisfree, one of the K-cosmetics brands, is reborn as a global naturalist brand by expanding its global business. The Korean Wave and the development and growth of the content industry led to the change and development potential of K-Beauty, along with color cosmetics, the global influence of K-Beauty beauty industry has greatly increased as the demand for basic cosmetics that require cutting-edge technology has also increased. Currently, the beauty industry is emerging as a high value-added industry in the future, and it is an industry with great potential to become a new growth engine for the country in an emotional consumer society in the 21st century. Korean beauty products are gaining popularity due to their innovative features and designs and reasonable prices. In the early days of the spread, K-beauty began to attract attention thanks to the popularity of other Korea contents, but it can be seen that it is gradually gaining popularity based on the technology and competitiveness of the product (Table 4). In the future, the global cosmetics market is expected to continue to rise due to the integration of digitalization of distribution channels and live commerce of online broadcasting. We can expect the development of the market for K-makeup, which is communicated and shared worldwide.

### 4 | DISCUSSIONS

In Korea, due to the risk of transmission from the start of COVID-19, sanctions were imposed on offline activities, and outside activities were naturally significantly reduced. The beauty industry, where face-to-face is essential, has been hit hard, with many offline stores closing and sales falling. The ecosystem of the beauty industry before and after COVID-19 has changed significantly. Nevertheless, the beauty industry can survive because the interest in appearance management is increasing day by day due to the increasing
The rapidly growing beauty industry is receiving a lot of attention as a growth industry that transcends gender and age amid social and cultural development. Recently, art rather than technology, and emotion rather than knowledge is changing in a direction that is more important. This phenomenon is bringing about the growth of the beauty industry, preferring its own new patterns. Due to the corona virus, the trend of spending time at home has increased and people use SNS or YouTube a lot. Based on that information, interest in self-beauty and home care has also greatly increased. With the popularization of smartphones, SNS use and YouTube have become essential marketing in the beauty industry market. K-beauty is being shared all over the world through various online media. It is common to see K-cosmetics' sales surge in a short period of time through influencers online. For example, the ripple effect of K-beauty is so great that you can easily see foreigners wearing clothes from ‘Squid Game’ while imitating the hair of ‘BTS’ abroad. As an IT powerhouse, Korea is pioneering a wider market to the United States, Middle East, and Europe. Korean cosmetics are gaining popularity based on their technological prowess and competitiveness.

5 | CONCLUSIONS

This review examines the current state of the beauty ecosystem in the COVID-19 pandemic. After the end of COVID-19, the beauty ecosystem will change again. Exploring ways to achieve sustainability in the Korean beauty industry, not only in Republic of Korea but also in overseas K-beauty industries. We looked at the possibility of development by suggesting a method for direction to move toward offline and online simultaneous development.

AUTHOR CONTRIBUTIONS

Minchae Kim and Ki Han Kwon involved in conception or design of the work, interpretation, drafted the article, and critically
revised the article. All authors finally approved the version to be published.

CONFLICT OF INTEREST

The authors of this manuscript do not have any conflict of interest to disclose.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICAL APPROVAL

The conducted literature review did not require the agreement of the bioethics committee.

REFERENCES

1. Shin M. A study on the preference of cosmetics category and change of Purchasing Channel due to COVID-19. Korea's Master's Degree Thesis Konkuk University Graduate School of Industry, Seoul; 2022. http://www.riss.kr/link?id=T16082026
2. Nam J, Kim M. The use of skin care rooms according to the perception of social risks caused by COVID-19. J Korean Beauty Soc. 2021;27(6):1377-1389
3. Park M. The effect of adult Women's lifestyle on the use of SNS beauty information and the motivation to purchase skin care. Master's Degree Thesis Yewon University Graduate School of Culture and Arts, Jeollabuk-do; 2021. http://www.riss.kr/link?id=T15916302
4. Kim YH. The effect of perceived service quality on consumer behavior of hair and beauty services. Sangmyung University General Graduate School, Seoul, Ph. D. in Korea; 2021. http://www.riss.kr/link?id=T15911426
5. Kim MH. A study on changes in hair shop visit behavior after the outbreak of COVID-19. Sungkyul University's Prime Graduate School, with a master's degree in Korea; 2021. http://www.riss.kr/link?id=T15926919
6. Kim HJ. A case study on convergence and complexity of the domestic beauty industry in accordance with the fourth industrial revolution. Master's Degree Thesis Soomkyung Women's University Graduate School of Culture and Arts, Seoul; 2022. http://www.riss.kr/link?id=T16058622
7. Lee EK. The effect of convenience in online reservation service on service value and customer satisfaction. Ph.D. thesis in Korea, Graduate School, Seokyoung University, Seoul; 2020. http://www.riss.kr/link?id=T15684686
8. Moon JH. The effect of health consciousness on protective motivation and health behavioral intentions of beauty consumers in the COVID-19 era. A thesis with a doctor's degree in Korea, Seokkyung University, Seoul; 2022. http://www.riss.kr/link?id=T16148502
9. Bae SE. The effect of wearing a mask due to COVID-19 on skin condition and skin care behavior in adults. A thesis with a master's degree in Korea, Daegu Oriental University's Graduate School of Oriental Medicine, Gyeongsangbuk-do; 2021. http://www.riss.kr/link?id=T15829793
10. Park DJ. The effect of Buyer's consumption tendency on the purchase decision of influencer single market cosmetics. Hansung University Graduate School of Art, Seoul, Korea's Master's Degree; 2020. http://www.riss.kr/link?id=T15642656
11. Kim YM. A study on the consumption motivation and continuous management of self-nail consumers. Sungkyul University Graduate School of Education, Korea's Master's Degree thesis; 2020. http://www.riss.kr/link?id=T15650554
12. Eom DB. The effect of self-nail experience factors on professional nail artist career choice. Master's Degree thesis, Hansung University Graduate School of Art, Seoul; 2020. http://www.riss.kr/link?id=T15642670
13. NA SY. Structural relationship between self-nail consumers' consumption motivation, self-efficacy, involvement, and continuous intention. A thesis with a doctor's degree in Korea, Daegu Catholic University, Gyeongsangbuk-do; 2017. http://www.riss.kr/link?id=T14434654
14. Park SY. Analysis of the relationship between nail care service quality and satisfaction. Master's Thesis Jungbu University, Chungcheongnam-do; 2022. http://www.riss.kr/link?id=T16159316
15. Kim J. The relationship between customer use status and perception of nail service through SNS and social commerce, professionalism and satisfaction. Master's Thesis Hannam University Graduate School of Social, Culture, Public Administration and Welfare. Daejeon; 2022. http://www.riss.kr/link?id=T16024548
16. Lee SG. Analysis of beauty styling for image making of K-Pop Girl Group. Master's Degree thesis, Chung-Ang University Graduate School of Art, Seoul; 2018. http://www.riss.kr/link?id=T14914028
17. Sin OS. The effect of workplace playfulness on work-life balance. Doctoral dissertation, Chung-Ang University Graduate School. Seoul; 2022. http://www.riss.kr/link?id=T16086341
18. Hwang YH. The effect of beauty education on job competency and job satisfaction of K-beauty service tourism workers. Master's thesis in Korea, Graduate School of Arts, Chung-Ang University. Seoul; 2021. http://www.riss.kr/link?id=T15783240
19. Kim JY. A study on how to strengthen global competitiveness in the domestic beauty industry. Master's Degree thesis Chung-Ang University Graduate School of Art, Seoul; 2018. http://www.riss.kr/link?id=T14736400
20. Kim IS. The relationship between women's beauty management behavior and psychological well-being after COVID-19. A thesis with a master's degree in Korea, Myongji University Graduate School of Industry. Seoul; 2021. http://www.riss.kr/link?id=T15913923
21. Lee SJ. A study on online video promotion strategies to spread K-beauty Hallyu content. A Master's Degree thesis in Korea, Incheon University Graduate School. Seoul; 2018. http://www.riss.kr/link?id=T14751153
22. Gwag JE. A study on the behavior and satisfaction of cosmetics purchasing through live commerce. Sungshin Women's University Graduate School of Beauty Convergence. Seoul; 2021. http://www.riss.kr/link?id=T15785358
23. Ok BK. A study on the effect of consumption value on purchase intention for home beauty devices in the non-face-to-face era. A thesis with a Master's Degree in Korea, Westminster Theological Graduate School. Gyeonggido; 2022. http://www.riss.kr/link?id=T16038689
24. Kim J. Analysis and awareness of K-beauty industry in the US. Master's Thesis Konyang University. Chungcheongnam-do; 2018. http://www.riss.kr/link?id=T14830037

How to cite this article: Kim M, Kwon KH. Significant paradigm of beauty ecosystem after COVID-19 pandemic in Republic of Korea. J Cosmet Dermatol. 2022;21:4114-4121. doi: 10.1111/jocd.15192