

The Fragrance of Cyber World 2080: A Perfume Forecast

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ABSTRACT: With COVID-19 causing people to work in a non-face-to-face mode, more of us have become aware of future forms of workspaces: a contactless workspace. With unprecedented methods of human engagement emerging, the perfume industry faces the need to evolve. This paper predicts the developing needs of next-generation perfume consumers and introduces survival tactics perfume businesses should adopt to catch up with the fast-paced changes. This study includes two surveys on 180 working adults. In these surveys, respondents spoke on their pre-pandemic and post-pandemic habits of using perfume, specifically their frequency of perfume use and preference of fragrance products categorized by fragrance type, scent duration, product form, and price. Results revealed that working in an isolated space has increased the liking for lighter scents, short-lived scents, perfume oils, single-use packaging, and lower price over heavier scents, long-lasting scents, fragrances and colognes, bottle packaging, and higher price. It showed from the study that the increased prevalence of private workspaces drove perfume from being a supplement for better social connections to being an investment for relaxation, satisfaction, and higher self-esteem. This paper includes a prototype - a sample "future perfume" - created based on these findings to propose what a perfume product might look like in a neo-workspace. This paper aims to investigate new consumer demand targeting the perfume industry and contribute to research on industrial adaptation and futurology.

KEYWORDS: fragrance, future, industry, perfume, workspace

1. Introduction

COVID-19 has put us in a widespread situation of social distancing, and of the consequences of the social distancing was a sharp reduction in commuting to work (Bick, Blandin, and Mertens 2020, 5). As the pandemic is forcing us to stay at home, we are facing certain unpredicted consequences, such as reduction of air pollution due to decreased commute by automobile. Our scope of activity has shrunk to the most private places with little to no human interaction, most of that interaction being between us and our families. As a result, markets that rely on human contact, such as the fashion, beauty, and skincare industry, are experiencing crises, many small brands facing a direct threat to existence.

COVID-19 has taken a step further to shedding light on new possibilities in forms of working. Though we have yet to adapt to flawless work-from-home, it is true that nearly two years of social distancing has accentuated the convenience of a contactless workspace. Positive emotions and high anticipation are revolving around the theme of non-face-to-face working, as can be seen from a tweet-based study on sentiments toward work-from-home where it was found that the majority of the tweets across the globe were done with three emotions, Trust, Anticipation and Joy (Dubey and Tripathi 2020, 15). Knowing this, COVID-19 could reveal to be a cornerstone of workspace evolution.

In rapid changes like this, repurposing helps companies to keep production lines up and running in times of low demand, generate moderate revenues, and positively impact their reputation (Betti and Heinzmann 2020, 3). This paper, focusing specifically on the perfume industry, looks into people's pre-pandemic and post-pandemic habits of using perfume. A survey composed of two questionnaires was given to 180 working adults able to represent the large population of people who have started to work more at home due to the COVID-19 outbreak. Respondents were questioned on basic information on perfume use and were then asked on their

changed or unchanged preferences for perfume products since work-from-home increased in 2020 to verify the following hypothesis:

Increased work-from-home has increased the liking for heavier scents, long-lasting scents, perfume oils, bottle packaging, and lower price. It is the objective of this study to understand the emerging demands of perfume consumers in a world of neo-workspaces. Suggesting possible pathways of market reconstruction and adjustment, this paper also aims to introduce a scenario a future cosmetics & fragrance industry might follow. By doing so, this paper intends to contribute to research on industrial adaptation and futurology.

2. Main Body

2.1. Introductory Research

To understand the impact COVID-19 could have on workspaces, it is critical to know how COVID-19 has become a transition period for various workplaces. Since the appearance of COVID-19, there has been a 12% and 9% decrease in working time within headquarters and satellite offices, and an increase of 20% to 27% in flexible office working is projected (Ancillo, Núñez, and Gavrila, 2020, 9). Many innovative companies are not striving to return-to-work. Rather, they are viewing social distancing as a new opportunity to experiment with a geographically dispersed workforce (Kaushik and Guleria, 2020, 11). Positive reactions towards contactless workspaces have spurred all across the world, suggesting a high possibility that a large portion of COVID-19 workspaces might stay like this instead of gathering back to headquarters and compact offices again.

It is already an established fact that work-from-home driven by COVID-19 is influencing the sales of many companies across numerous industries. We can consider this a market risk for the perfume industry because a majority of perfume consumers are used to the usual habit of applying perfume outside the home (Rogiananto and Sutardi, 2021, 294). Within the beauty industry, there have also been movements as demand has shifted from cosmetic and hair care products to products like soap, moisturizers and sanitizers/disinfectants (Schwartz et al., 2020, 5). When it comes to make-up products, products most similar in purpose of use with perfume, purchase saw a dip since there is no need to go out (office, social gathering, etc) and during rare outdoor visits wearing masks make it irrelevant to apply makeup (Sharma and Mehta, 2020, 11). It is presumable that the perfume industry will also go through a continuous sales downfall if work-from-home is newly adapted as a prominent work form.

2.2. Methodology

Two surveys were conducted to understand how preferences for perfume products changed before and after the outbreak of COVID-19. 180 working adults in South Korea regardless of gender were selected for the survey. The age range was set from 25 through 45 to best reflect the usual perfume consumer cohort. The survey was posted as an ad on Facebook for 14 days from June 9 through June 23. Two questions were made to pop up before the respondent could proceed to the actual survey. The two questions confirmed that the respondent was between the age of 25 ~ 45 and experienced full or partial work-from-home for over a total of 1 month. To better focus the surveys on the current perfume consumer level, the keyword of the surveys, perfume, was revealed prior to having the surveys answered. This was done intentionally so that the survey could receive more responses from those already using perfume. As a second filter, respondents who clicked on the survey were shown a text asking to exit from the survey if they don't use perfume because their answers would be irrelevant in comparing changed preferences for perfume. It was mentioned that the completion of both surveys could take up to approximately 8 – 10 minutes.

The first survey focuses on the frequency of perfume use, mainly on how the frequency changed before and after the start of COVID-19. Comprising four questions, this survey provides insight into whether people's frequency of applying perfume has notably reduced since COVID-19.

Table 1. Survey 1 - Frequency of Perfume Use

1. How many days per week did you apply perfume pre-COVID? 1) 0-1 days 2) 2-3 days 3) 4-5 days 4) 6-7 days
2. How many days per week do you apply perfume post-COVID? 1) 0-1 days 2) 2-3 days 3) 4-5 days 4) 6-7 days
3. Do you apply perfume less now compared to pre-COVID? 1) Yes 2) No
4. Do you think work-from-home from COVID-19 has changed your frequency of perfume use? 1) Yes 2) No

The second survey pinpoints the more specific aspects of perfume preference. Divided into five categories (heaviness of scent, duration of scent, content, packaging, and price), this survey looks into the specific migrations of preferences and how the “trend” of perfume products has changed.

Table 2. Survey 2 – Specific Aspects of Perfume Preference

1. Since working from home, how has your preference for perfume changed? 1) Lighter perfume to heavier perfume 2) Heavier perfume to lighter perfume 3) Has not changed
2. Since working from home, how has your preference for perfume changed? 1) Short-lasting perfume to long-lasting perfume 2) Long-lasting perfume to short-lasting perfume 3) Has not changed
3. Since working from home, how has your preference for perfume changed? 1) Perfume oils to fragrances/colognes 2) Fragrances/colognes to perfume oils 3) Has not changed
4. Since working from home, how has your preference for perfume changed? 1) Bottle packaging to single-use packaging 2) Single-packaging to bottle packaging 3) Has not changed
5. Since working from home, how has your preference for perfume changed? 1) Cheap to expensive (Lower price to higher price) 2) Expensive to cheap (Higher price to lower price) 3) Has not changed

Results for the surveys were collected online via Google Form.

2.3. Discussion

Below are the results for Survey 1. Percentages were rounded to the second decimal place.

Table 3. Survey 1 – Results

1. How many days per week did you apply perfume pre-COVID?		
0-1 days	16	8.89%
2-3 days	37	20.55%
4-5 days	66	36.66%
6-7 days	61	33.88%
2. How many days per week did you apply perfume post-COVID?		
0-1 days	80	44.44%
2-3 days	53	29.44%
4-5 days	29	16.11%
6-7 days	18	10%
3. Do you apply perfume less now compared to pre-COVID?		
Yes	152	84.44%
No	28	15.55%
4. Do you think work-from-home from COVID-19 has changed your frequency of perfume use?		
Yes	142	78.88%
No	38	21.11%

A simple percentage frequency calculation was used to analyze the results. Below is a grouped bar chart outlining the results for Survey 1: Questions 1 & 2. This figure shows the distribution of the number of days in a week the survey respondents used perfume, before and after COVID-19. The numbers of respondents for each option pre-COVID are in blue and the numbers of respondents for each option post-COVID are in black. Results for the two questions were grouped based on option for easier comparison. What's noteworthy from this figure is that while the blue bars are higher around 4-5 days and 6-7 days, the black bars are higher around 0-1 days and 2-3 days. This disposition shows that more people have a tendency to apply perfume fewer days a week post-COVID compared to pre-COVID. How the responses weighted heavily on 0-1 days post-COVID shows the sharp drop in number of days people worked outside their private spaces and at their offices, compared to the 4-7 days of normal working days pre-COVID in South Korea.

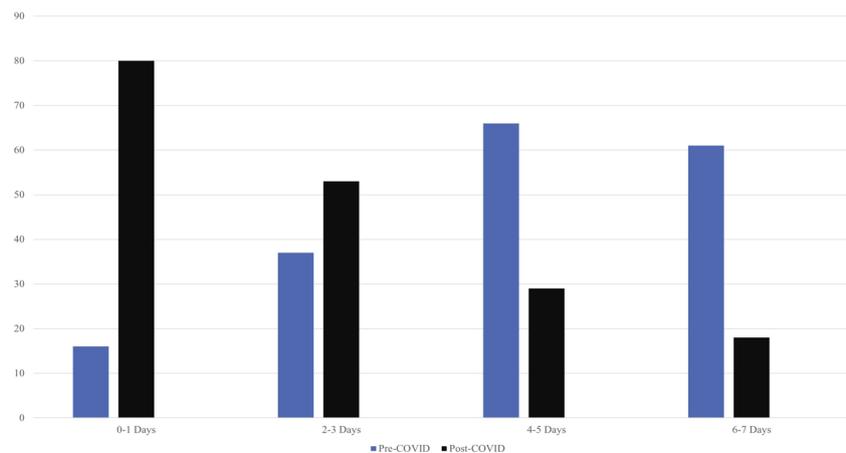


Figure 1. Frequency of Perfume Application – Bar Graph

The mean numbers of days can be calculated with the median values for each option as the standard multiple. Pre-COVID, respondents applied perfume for an average of 4.41 days per week. Post-COVID, respondents applied perfume for an average of 2.33 days per

week. This gap denotes the decline in everyday demand for perfume, possibly leading to a decline in market demand.

For positivity that this difference is a result of increased work-from-home due to social distancing, these questions were followed by a second set. The two questions in this set aim to directly ask the respondents on their perception of work-from-home and whether they believe that COVID has impacted their use of perfume. Both questions being simple Y/N questions, this pie chart illustrates the results.

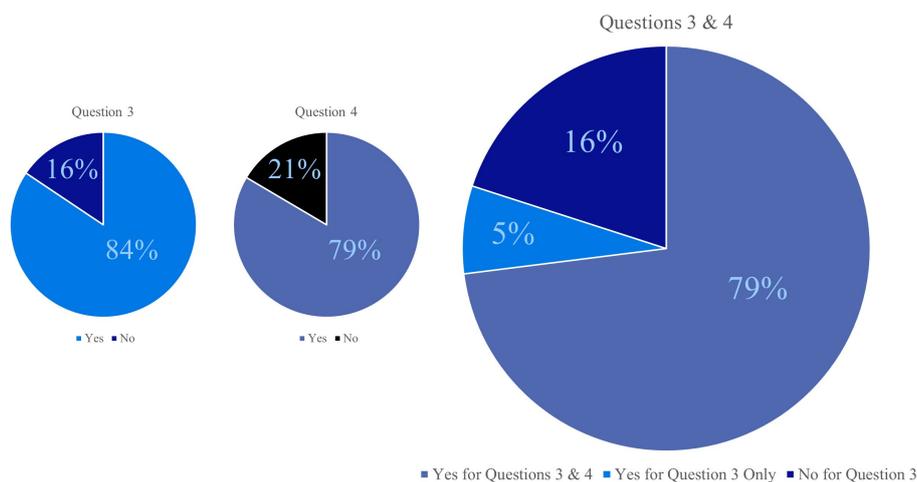


Figure 2. Frequency of Perfume Application – Pie Chart

The three pie charts each describe the results for Question #3, #4, and both combined. For Q#3 (Do you apply perfume less now compared to pre-COVID?), 152 respondents answered “yes”, which is 84% of the survey group. For Q#4 (Do you think work-from-home from COVID-19 has changed your frequency of perfume use?), 142 respondents answered “yes”, which is 79% of the survey group. A noteworthy outcome is that all 142 respondents who said that COVID-19 has changed their frequency of perfume use responded that they apply less perfume now than before COVID-19. It is surprising how all except 10 people who responded “yes” to Q#3 connected their decreased need for perfume to the pandemic and less contact while working. Below are the results for Survey 2. Percentages were rounded to the second decimal place.

Table 4. Survey 2 – Results

1. Since working from home, how has your preference for perfume changed?		
Lighter perfume to heavier perfume	28	15.56%
Heavier perfume to lighter perfume	125	69.44%
Has not changed	27	15%
2. Since working from home, how has your preference for perfume changed?		
Short-lasting perfume to long-lasting perfume	46	25.56%
Long-lasting perfume to short-lasting perfume	118	65.56%
Has not changed	16	8.89%

3. Since working from home, how has your preference for perfume changed?		
Perfume oils to fragrances/colognes	30	16.67%
Fragrances/colognes to perfume oils	123	68.33%
Has not changed	27	15%
4. Since working from home, how has your preference for perfume changed?		
Bottle packaging to single-use packaging	131	72.78%
Single-use packaging to bottle packaging	35	19.44%
Has not changed	14	7.78%
5. Since working from home, how has your preference for perfume changed?		
Cheap to expensive (lower price to higher price)	22	12.22%
Expensive to cheap (higher price to lower price)	147	81.67%
Has not changed	11	6.11%

Below is a visualization for the percentage distribution for each of the questions of Survey 2. It is noticeable that the responses weigh heavily on one option for each question.

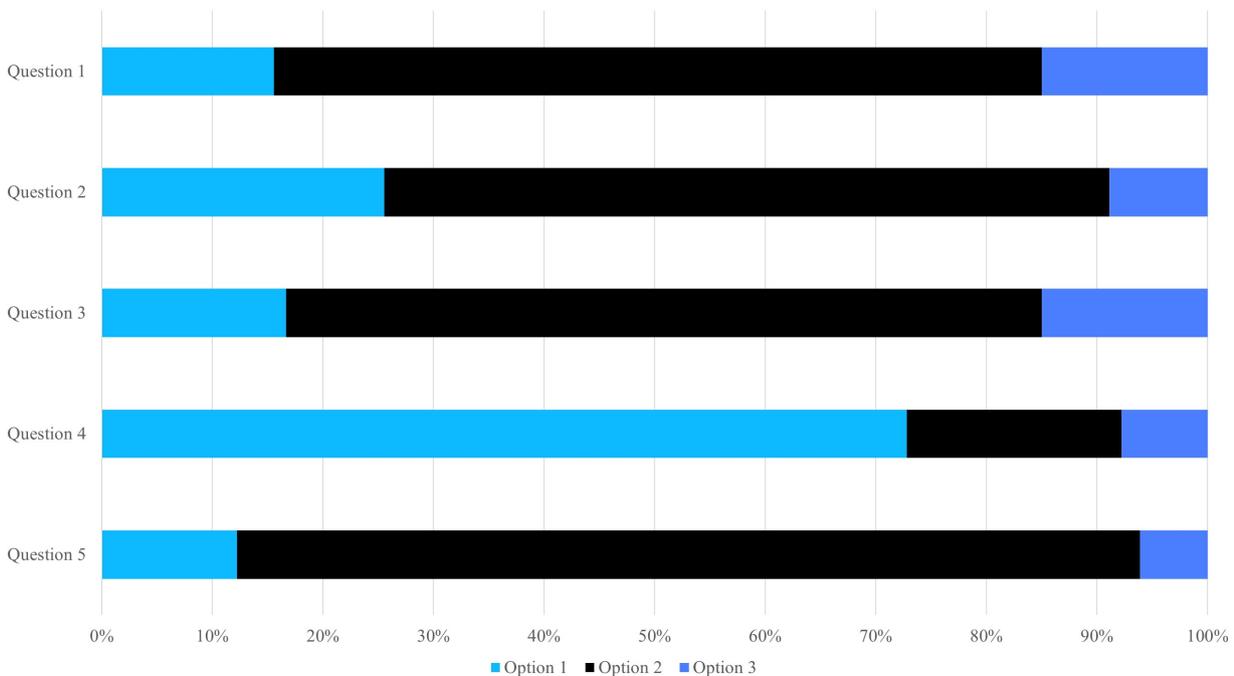


Figure 3. Preference for Perfume – Accumulative Bar Graph

The accumulative bar graph above contrasts the share of each option. It can be seen that Option 2 was dominant for each question except for Q#4 where Option 1 was dominant. According to the survey, 69.44% of the respondents preferred lighter perfume (Option 2) over heavier perfume. 65.56% of the respondents preferred short-lasting perfume over long-lasting perfume. 68.33% of the respondents preferred perfume oils to fragrances/colognes. 72.78% of the respondents preferred single-use packaging over bottle packaging. Lastly, 81.67% of the respondents preferred cheap perfume over expensive perfume.

This proves against the hypothesis that work-from-home has increased the liking for heavier scents, long-lasting scents, perfume oils, bottle packaging, and lower price. Rather, it has been revealed that work from private spaces due to COVID-19 has led to more people preferring lighter scents, short-lasting perfume, perfume oils, single-use packaging, and cheap perfume.

It can be observed from the results that unlike what was expected before the survey, people tended to prefer perfumes that are stored in small portions to use one at a time. This correlates with the high preference for light, short-lasting scents that can be applied once and then diffused quickly in a small, enclosed area. It is likely that isolation due to COVID-19 has directed the need for perfume from social relationships to personal satisfaction in a private space. Because perfume is now less for coworkers and more for oneself, there is a higher demand for short, quick sprays of good scent instead of strong smells. Higher preference for perfume oils, which sticks better to skin or surface compared to fragrances/colognes that spread relatively far, shows how perfume in COVID-19 revolves around a close proximity. The preference for lower price in perfumes also reflects decreased need for investment in semi-cosmetics and how purchasing fragrance products have become burdensome spending.

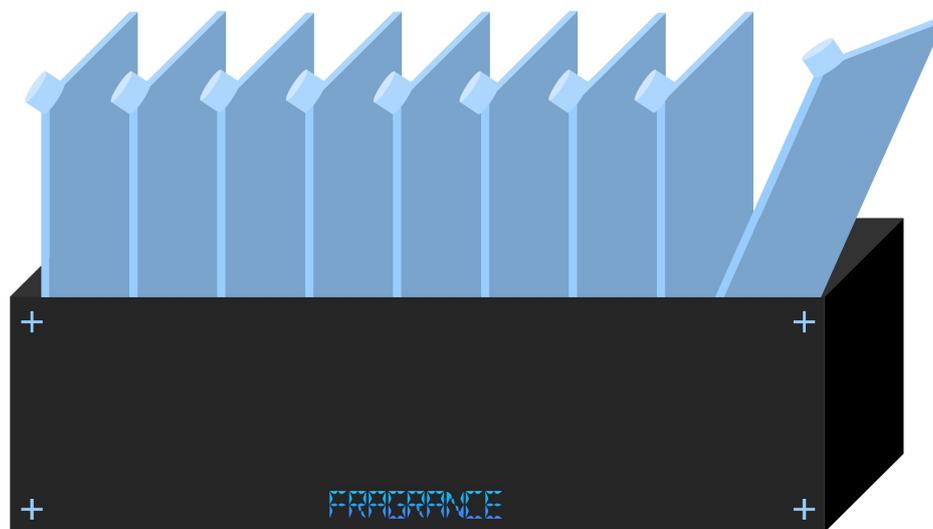


Figure 4. The Future Perfume: A Prototype

Keeping in mind that new workspaces that emerged due to COVID-19 might be implying the working environments that might appear in the future, it is necessary for perfume brands to steadily prepare for altered needs for perfume. Based on the survey, it is evident that perfume has become more of a luxury than a necessity for human relationships, and its benefits are focused on a small, private demand more than ever.

How people's likes have moved on from expensive, condensed, and heavy scents that can be sprayed from bottles of fragrances and colognes to cheap packages of single-use oils somewhat remind us of facial masks or lotions. The prototype above visualizes what perfume might look like in several decades. Unlike fancy bottles from high-end brands that carry little liquid and decorate our make-up booths, perfume might look like boxes of tissue or drinkable tonics.

Whatever form future perfume may take, we will most likely move on from the traditional forms of perfume to more lightweight and convenient perfume of more simple, refreshing scent instead of deeper scents than intend to leave an impression. It is also expected that consumer's process of choosing which perfume to purchase will rely more on personal taste than considering what social image they pursue. Therefore, perfume brands shall put an emphasis on designing likable scents that suit neo-workspaces like homes or one-man offices.

3. Conclusion

Unlike the original hypothesis that work-from-home has led to more people prefer heavier scents, long-lasting scents, perfume oils, bottle packaging, and lower price, the results of this study shows that the pandemic has led to more people preferring lighter scents, short-lasting perfume, perfume oils, single-use packaging, and cheap perfume. With two surveys supporting key findings, this research contributes to the broad field of study on perfumery and semi-cosmetics marketing.

One of the few limitations of this study is that experiments involving human contact wasn't possible, due to COVID-19. The original plan was to conduct two surveys and an experiment where participants would be given two forms of perfume to use in their private workspaces. The participants would be checked on which perfume they ended up using more and which product they liked more. This observation would have allowed a more in-depth understanding of the research topic, but frequent changes in environment due to self-quarantine and a sudden change in Korean working policies around June became an obstacle. However, respondents' active participation in completing the surveys helped gather enough data, and it is expected that further studies incorporating more field-based study methods will complement the learnings from this research.

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