Beauty During a Pandemic: The Impact of COVID-19 on the Cosmetic Industry

by
Katelyn Gardner

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Thesis Committee:

Diane Edmondson, Thesis Director

Lucy Matthews, Second Reader

Mary Evins, Thesis Committee Chair

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APPROVED:

____
Dr. Diane Edmondson, Thesis Director
Professor, Department of Marketing

____
Dr. Mary A. Evins, Thesis Committee Chair
Research Professor, University Honors College

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Abstract

Purpose - The cosmetic industry is a multi-billion-dollar industry that has taken a financial hit in 2020 due to COVID-19. The drop in cosmetic usage leaves the industry in question for future consumer intention and behavior. By the summer of 2020, revenue had dropped by 7.4%, and employment dropped by 3.91%. With dwindling numbers in revenue and jobs, marketers must grasp the changes in consumer behavior and attitudes so that new strategies can be implemented. With updated strategy and priorities, marketers can pull the cosmetic industry back to pre-COVID-19 numbers.

Methodology - Data were collected from 1,715 female Middle Tennessee State University students using a survey, conducted through Qualtrics. The survey was broken up into three sections to analyze changes in behavior and attitudes pre- and mid-COVID-19, as well as future intentions. The results from each question were broken down into individual tables to examine differences in means and responses.

Results - The research questions developed were answered by examining the differences between behaviors and attitudes pre-, mid-, and post-COVID-19. Results indicate significant differences that consumers will go back to pre-COVID-19 usage post-COVID-19. Mid-COVID-19 results showed that participants reduced their usage of each cosmetic type (face, eye, lip, and skin) compared to their pre-COVID-19 levels. Eye, lip, and skin cosmetics will return to previous usage post-COVID-19. The exception here is face cosmetics, which indicated that consumers wore more face cosmetics pre-COVID-19 than they intend to post-COVID-19. The most important cosmetic category was skincare, which had the highest levels of usage pre-, mid-, and post-COVID-19. Price maintained a high priority in pre-, mid-, and post responses. Convenience was not as essential pre-COVID-19 but became extremely important mid-COVID-19 and is shown to continue a high level of importance for post intentions. Although these findings may be surprising, it is positive news to the cosmetic industry that consumers relatively intend to go back to old buying habits.

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I

Introduction

COVID-19 has completely changed and disrupted many jobs, markets, and industries. In particular, the cosmetic industry has been hit hard since consumers are now staying home more frequently and also wearing masks in public. Many consistent cosmetic consumers may not see the value in using, let alone buying, cosmetics when their job or school may only require virtual meetings. Additionally, mask requirements may affect any type of lip and, partially, face cosmetic usage (Altman, 2020). So how exactly has COVID-19 impacted the cosmetic industry's markets, jobs, and overall direction? Consumers may or may not notice a significant change since the cosmetic industry was at its height in 2018 (Statista, 2020). However, due to the pandemic, the cosmetic industry in the United States is expected to decline 17.6% in 2020 as well as expected to lose revenue and experience noteworthy setbacks (Fernandez, 2020; Global Cosmetic Industry, 2020; Hiner, 2020).

Due to these significant changes, it is imperative that past success is compared to the industry's current state. Understanding the past and present will give insight into forecasting the future. For example, understanding the industry's past and present status will illustrate both revenue and job losses that have occurred. To examine the issue further, a survey has been created specifically for this Honors thesis that may show changes in attitudes and perceptions toward using cosmetics pre- and mid-pandemic. The survey may also give insight into how marketers can potentially convince consumers to resume cosmetic purchasing. Next, changes in revenue, traffic, and behavior regarding online shopping and store pick-up will be reviewed. Along with previous marketing research, this study's investigation will develop recommendations for what strategic plans the cosmetic industry should consider to be successful in the future and recover from current losses. This research can then be used if future potential national or global disasters may occur and can help the industry and specific markets with marketing strategies to overcome.

Thesis Statement and Research Questions

This Honors thesis aims to understand and explain changes in consumer behavior as it relates to the cosmetic industry. Understanding this information is critical, as it directly impacts the cosmetic industry's success as it relates to revenue, job numbers, and products desired. Having a clear understanding of these changes can help the industry recover from losses and develop new marketing strategies to thrive again. Specifically, the two thesis questions are: 1. How have consumers' cosmetic attitudes and preferences changed due to COVID-19? 2. What marketing strategies can businesses adopt and aid industry recovery post-pandemic?

II

Literature Review

The Cosmetic Industry Pre-COVID-19

The United States beauty and cosmetics industry is among the related beauty industries that manufacture, package, and distribute cosmetics like face, eye, and lip makeup (Hiner, 2020). The cosmetic industry thrived before the pandemic hit and expected growth in the new decade (Brinckmann, 2020). In fact, MarketLine's industry profile states, "The global makeup market grew by 4.9% in 2019 to reach a value of $55,692.5 million" (2020, p. 11). Growth was expected to continue due to dynamic changes the industry made with influencer marketing and celebrities creating their own make-up lines. The worldwide cosmetics segment was expected to grow by four billion in revenue by 2020, which is considerably steady growth (Brinckmann, 2020). In 2019, retail sales of beauty and personal care products in the United States were $90.71 billion (Statista, 2020). Additionally, out of the top 50 Beauty retailers, ULTA Beauty and Sephora control 49% of the industry (Walters, 2020). Furthermore, these beauty retailers could help customers with testing or applying makeup. Having this help made buying makeup an experience and promised the customer that they were leaving the store with the exact shade they needed (Walters, 2020). When examining the cosmetic brands most commonly purchased in the United States, the top four include COVERGIRL at 41%, Maybelline New York at 37%, Revlon at 28%, and L'Oréal Paris at 24% (Statista, 2020). The cosmetic industry experienced a positive growth rate prior to the start of the pandemic.

The Cosmetic Industry Mid-COVID-19

However, by March 2020, the industry took a drastic shift. Because of COVID-19's impact, the overall United States industry's revenue has decreased by 7.4% and employment by 3.91% in 2020 (Hiner, 2020). A great part of this decrease was because beauty, cosmetics, and fragrance stores such as ULTA Beauty and Sephora were closed for two months due to COVID-19, resulting in its revenue decrease of 5.3% (Fernandez, 2020). In addition, these stores also were forced to furlough tens of thousands of employees (Creswell, 2020). Due to the influence of cosmetic retail giants ULTA Beauty and Sephora, their closing significantly impacted the industry (Walters, 2020). Also, since the start of COVID-19, the idea of someone else touching a person's face may sound unsettling and may potentially violate local mask ordinances (Walters, 2020).

Currently, many companies are trying to predict when recovery will come and when the overall industry will be stabilized. MarketLine's Industry profile for global makeup states, "…in our latest models we predict the market to decline by -10.7% in 2020 and not return to preoutbreak levels until 2023" (2020, p. 9). This prediction matches Brinckmann's 2020 report showing that the worldwide cosmetic segment will not recover until 2023 (Brinckmann, 2020). MarketLine and Statista's reports show there is hope for eventual recovery in the global makeup market, but without question the pandemic has deeply undercut growth. Further, evidence of a downward trend due to increased unemployment and reduced disposable income is provided by the Consumer Confidence Index. When the Consumer Confidence Index is high, consumers are more likely to purchase cosmetics (Hiner, 2020). An IBIS World report states the Consumer Confidence Index was at -1.60% in 2019 and is now -13.50% in United Statesmanufactured cosmetics (Hiner, 2020). Not only are the industry and market down overall, but another critical aspect to note is what specific products are down in sales. Market research done by Catalina Marketing stated that the week ending March 14, 2020, compared to the prior year, lip cosmetics were down 23%, cosmetic applicators were down 30%, and cosmetic gift sets were down 19% (Catalina Marketing, 2020; Global Cosmetic Industry, 2020).

Changes in Consumer Behavior, Attitude, and Perceptions

As previously mentioned, many women are starting to stray away from their regular beauty routines due to mask regulations and working remotely (Altman, 2020). If consumers are just staying home all day, it may seem irrelevant to wear makeup. Some researchers have highlighted that worrying about cosmetic usage is selfish, even though it is actually healthy and normal for women to care about their appearance (Chernikoff, 2020; Edwards, 2020). Many women are switching to a bare-faced look and focusing on skincare routines instead (Chernikoff, 2020; Creswell, 2020). In contrast, other women are still wearing lipstick and mascara because it makes them feel like themselves and in control (Chernikoff, 2020; Edwards, 2020). In fact, Dr. Stewart Shankman, chief of psychology at Northwestern Memorial Hospital, states that maintaining routines that boost confidence can benefit consumers' mental health (Chernikoff, 2020). Moreover, "Other academics are hopeful that the pandemic will cause women and men to cultivate a more compassionate view of their bodies" (Altman, 2020). Overall, women are becoming more accepting of not wearing makeup daily and going for a more natural look, which could have long-term ramifications on the cosmetic industry (Edwards, 2020). Due to the current trend towards more natural beauty, it is important to understand consumer attitudes, perceptions, and behaviors in order to better understand the changes that might impact the industry for years to come.

Impacts of Online Shopping and Store Pick-up

Since many brick-and-mortar beauty retailers closed, with many still at minimal capacity, consumers are now shopping online and using store pick-up at a higher rate than pre-COVID-19 (Global Cosmetic Industry, 2020). The biggest concern of brick-and-mortar beauty retailers is that online cosmetic retailers may decrease demand for their stores, which could lead to more jobs lost and businesses closed (Fernandez, 2020). National Purchase Diary (NPD), an American market research company, reported that the week of March 28, 2020, online cosmetic sales increased 47%, which accounts for 90% of industry spending (Global Cosmetic Industry, 2020; National Purchase Diary, 2020). Typically, before COVID-19, the average e-commerce share of cosmetic purchases was only 20%, illustrating an intense shift in buying habits amongst consumers (Global Cosmetic Industry, 2020). This shift means retailers like ULTA Beauty, Sephora, and other beauty retailers have to adapt to include updated online shopping, no-contact delivery, and pick-up in-store models (Global Cosmetic Industry, 2020).

III

Methodology

The methodology utilized in this thesis research is a quantitative research project based on a survey. The survey was created using Qualtrics and sent to 9,665 female MTSU students enrolled in classes as of 9/25/2020. The survey was sent to MTSU emails. Female students clicked on the survey link embedded in the email to take the survey. In order to increase the response rate, reminder emails were sent through Qualtrics to those who did not completed the survey yet. These strategies allowed an appropriate number of responses to investigate previous, current, and future cosmetic attitudes and preferences. Female students are the main focus of this study since females typically are the ones who wear face cosmetics most often. In fact, Science of People stated that an estimated 44% of women do not like to leave their home without makeup (Edwards, 2020). The data were gathered through Qualtrics and analyzed through Excel and SPSS, a statistical analysis software. The survey instrument and the recruitment email can be found in Appendix A. IRB approval information for this survey can be found in Appendix B.

The survey was expected to have a 2-3% response rate, and the initial goal was to have at least 200 completed surveys. However, in the end, the survey had a much higher response rate. Out of the original 9,665 students emailed, 2,317 started the survey. After removing incomplete surveys, surveys from respondents who do not wear makeup, and surveys from respondents who failed the attention check, there were 1,715 completed responses used for data analysis. It took respondents, on average, 12.5 minutes to complete the survey.

Measures

All of the attitude-based scales were unidimensional and taken from the extant literature. Resilience ($\alpha = 0.875$) was a six-item scale from Smith et al. (2008), emotional engagement ($\alpha = 0.953$) was a five-item scale from Rich et al. (2010), positivity ($\alpha = 0.881$) was a seven-item reduced scale taken from Caprara et al. (2012), and intrinsic motivation ($\alpha = 0.797$) was a four-item reduced scale taken from Oliver and Anderson (1994). Emotional exhaustion ($\alpha = 0.917$) was a seven-item reduced scale taken from Maslach and Jackson (1981), while fashion consciousness ($\alpha = 0.791$) was a three-item reduced measure taken from Nam et al. (2007) and attitudes toward brand names ($\alpha = 0.707$) was a modified four-item scale taken from Lafferty and Edmondson (2014). Finally, three items were used to measure attitudes toward wearing cosmetics ($\alpha = 0.717$). All items were measured using a seven-point Likert scale.

IV

Results

Respondent Demographics

First, everyone of the 1,715 responses was female. For age, 85.6% (N = 1,468) of participants were between ages 18 and 24, and 8.7% (N = 149) of participants were between ages 25 and 34. Most of participants were white 70.8% (N = 1,214) or African American 15.3% (N = 262). School classification results show that 21.3% (N = 365) of participants were freshman, 19.5% (N = 334) were sophomores, 26.9% (N = 461) were juniors, 31.5% (N = 540) were seniors, and 7% (N = 120) were graduate students. Participants were also asked to provide the types of classes they were currently completing, with 77.8% (N = 1,334) in remote classes (e.g., Zoom), 65.1% (N = 1,116.5) in asynchronous online classes, 54.3% (N = 931) in typical in-person classes, and 36.3% (N = 623) in hybrid classes (mix of online and in-person). Next, 45.4% (N = 779) stated they work a part-time job, and 18.5% (N = 317) work full-time. Then, participants stated their work environment, with 52.3% (N = 897) working in-person and 9.7% (N = 166) working in a mix of remote, online, and/or in-person. 32.5% (N = 604) of participants were not currently working. As for outside activities, 97.4% (N = 1,670) said they were not a student athlete, and most, 74.2% (n = 1,272), stated they do not currently volunteer. In addition, a majority 61.8%, (N = 1,060) were single and never married, while 28.4% (N = 487) were single but in a committed relationship, and 7.9% (N = 135) were married. Lastly, 40.0% (N = 686) of students made below $10,000 a year, while an additional 20.1% (N = 345) made between $10,000-$24,999 a year.

Buying Behaviors Pre-COVID-19, Mid-COVID-19, and Post-COVID-19 Intentions

When examining the frequency with which participants used the different types of cosmetic products (face cosmetics, eye cosmetics, lip cosmetics, and skincare) based on pre-COVID-19, mid-COVID-19, and post-COVID-19 intentions, it is clear that usage changed (see Table 1). Overall, skincare products were the most frequently worn cosmetic type, followed by lip cosmetics, then eye cosmetics, and finally face cosmetics. When looking at the results, pre-COVID-19 usage was higher than mid-COVID-19 for each cosmetic product type, although the drop was more significant in both face, eye, and lip care. However, results also show that post-COVID-19 usage shows that participants will be similar to pre-COVID-19 levels for the different cosmetic product types.

Table 1: Percentage and Mean Frequency Scores for Each Factor Pre-, Mid-, and Post-COVID-19

Frequency	Pre-COVID-19	Mid-COVID-19	Post-COVID-19 Intentions
Face Cosmetics			
Never	225 (13.1%)	367 (21.4%)	223 (13%)
Only on special occasions	532 (31%)	616 (35.9%)	515 (30%)
Less than once a week	146 (8.5%)	196 (11.4%)	137 (8%)
1-2 times a week	220 (12.8%)	226 (13.2%)	264 (15.4%)
3-4 times a week	250 (14.6%)	159 (9.3%)	304 (17.7%)
5-6 times a week	175 (10.2%)	81 (4.7%)	154 (9%)
Daily	170 (9.9%)	70 (4.1%)	117 (6.8%)
Mean (*St. Dev*.)	3.55	2.84	3.49
Eye Cosmetics			
Never	123 (7.2%)	214 (12.5%)	122 (7.1%)
Only on special occasions	412 (24%)	489 (28.5%)	389 (22.7%)
Less than once a week	156 (9.1%)	197 (11.5%)	137 (8.0%)
1-2 times a week	214 (12.5%)	271 (15.8%)	254 (14.8%)

Frequency	Pre-COVID-19	Mid-COVID-19	Post-COVID-19 Intentions
Eye Cosmetics			
3-4 times a week	280 (16.3%)	237 (13.8%)	340 (19.8%)
5-6 times a week	238 (13.9%)	134 (7.8%)	225 (13.1%)
Daily	293 (17.1%)	173 (10.1%)	250 (14.6%)
Mean (*St. Dev*.)	4.17	3.54	4.15
Lip Cosmetics			
Never	106 (6.2%)	242 (14.1%)	113 (6.6%)
Only on special occasions	310 (18.1%)	334 (19.5%)	292 (17%)
Less than once a week	139 (8.1%)	161 (9.4%)	130 (7.6%)
1-2 times a week	184 (10.7%)	192 (11.2%)	187 (10.9%)
3-4 times a week	206 (12%)	142 (8.3%)	220 (12.8%)
5-6 times a week	153 (8.9%)	118 (6.9%)	178 (10.4%)
Daily	617 (36%)	525 (30.6%)	597 (34.8%)
Mean	4.75	4.23	4.77
Skin Care			
Never	46 (2.7%)	58 (3.4%)	45 (2.6%)
Only on special occasions	34 (2%)	62 (3.6%)	65 (3.8%)
Less than once a week	86 (5%)	74 (4.3%)	57 (3.3%)
1-2 times a week	125 (7.3%)	120 (7%)	105 (6.1%)
3-4 times a week	178 (10.4%)	187 (10.9%)	163 (9.5%)
5-6 times a week	153 (8.9%)	158 (9.2%)	165 (9.6%)
Daily	1,094 (63.8%)	1,056 (61.6%)	1,116 (65.1%)
Mean	6.03	5.93	6.06

In order to investigate if the usage frequency between pre-, mid-, and post-COVID-19 is statistically significant, a comparison of means was completed for each of the cosmetic types (see Table 2). Results show that there is a significant difference between pre-COVID-19 and mid-COVID-19 for all cosmetic types. Participants stated that they wore less of each cosmetic type mid-COVID-19 than before COVID-19 began. There were also statistically significant differences for each cosmetic type for mid-COVID-19 and post-COVID-19 intentions. In other words, participants plan on wearing each cosmetic type more frequently after COVID-19. When comparing pre-COVID-19 and post-COVID-19 intentions, there were no significant differences in usage frequency for eye, lip, or skincare types. However, there were significant differences in usage frequency for face cosmetics, with post-COVID-19 intentions being slightly less than pre-COVID-19 usage.

Table 2: Comparison in Means for Frequency of Usage between Pre, Mid, and Post-COVID-19

Type	**Pre – Mid**			**Mid – Post**			**Pre – Post**		
	Mean Difference	***t***	**p-value**	**Mean Difference**	***t***	**p-value**	**Mean Difference**	***t***	**p-value**
Face	.711	22.894	.000	-.655	-23.862	.000	.057	2.055	0.04
Eye	.628	20.499	.000	-.610	-22.448	.000	.018	.664	.507
Lip	.518	14.746	.000	-.535	-17.354	.000	-.017	-.594	.553
Skin	.100	4.117	.000	-.131	-5.260	.000	-.031	-1.178	.239

When examining the factors that participants thought were important when choosing cosmetics, five factors were considered. These factors include convenience, brand name, price, color options, and trends. Table 3 shows mean importance scores for each factor pre-, mid-, and post-COVID-19. In each case (pre-, mid-, post-), the most important factor was price, and the least important factor was trends. However, the second and third most important factors, based on the mean, depended on if it was pre-, mid-, or post-. Pre-COVID-19, the second and third factors were color options and then convenience; as for mid-COVID-19 and post-COVID-19 intentions, the second and third were reversed (convenience then color options). When examining if there were statistical differences based on pre-, mid-, and post-COVID-19, a comparison between means was conducted (see Table 4). When comparing pre-COVID-19 and mid-COVID-19 importance factors, there were significant differences for each factor except for price. Convenience was more important, while brand name and trends were less important mid-COVID-19 than pre-COVID-19. For differences between mid-COVID-19 and post-COVID-19 intentions, three factors were statistically different. Brand name, color options, and trends were stronger post-COVID-19 than mid-COVID-19. There were no significant differences in price and convenience post-COVID-19 and mid-COVID-19. Finally, when comparing pre-COVID-19 to post-COVID-19, there were significant differences for all factors except for price. Convenience was more important post-COVID-19, while color options, trends, and brand name were statistically more important pre-COVID-19.

Table 3: Mean Importance Scores for Each Factor Pre-, Mid-, and Post-COVID-19

Factor	Pre-COVID-19	Mid-COVID-19	Post-COVID-19 Intentions
Convenience	4.81	5.01	5.00
Brand name	4.29	4.14	4.23
Price	5.82	5.85	5.81
Color options	5.25	4.90	4.99
Trends	3.16	2.97	3.08

Importance scale ranged from 1 = Very unimportant to 7 = Very important

Table 4: Comparison in Means for Factor Importance between Pre-, Mid-, and Post-COVID-19

Type	Pre – Mid			Mid – Post			Pre – Post		
	Mean Difference	***t***	**p-value**	**Mean Difference**	***t***	**p-value**	**Mean Difference**	***t***	**p-value**
Convenience	-.199	-5.185	.000	.016	.457	.646	-.183	-4.871	.000
Brand Name	.156	5.433	.000	-.097	-4.051	.000	.059	2.005	.045
Price	-.029	-1.083	.279	.036	1.671	.095	.007	.269	.788
Color Options	.346	11.658	.000	-.083	-3.616	.000	.262	9.600	.000
Trends	.192	7.491	.000	-.103	-4.574	.000	.089	3.435	.001

The survey also asked if participants used 17 different cosmetic brands pre-COVID-19 and mid-COVID-19; however, only the top ten are included in Table 5. E.L.F. Cosmetics had the highest score with almost half of the sample pre-COVID-19 (45.1%, N = 774) and mid-COVID-19 (42.6%, N = 730). Fenty Beauty had the lowest score but was still almost a fifth of the sample with 19.6% of the participants (N = 336) pre-COVID-19 and 17.7% (N = 303) mid-COVID-19. Please see Table 5 for the results of the other eight brands.

Table 5: Brand Choice Percentages for Pre- and Mid-COVID-19

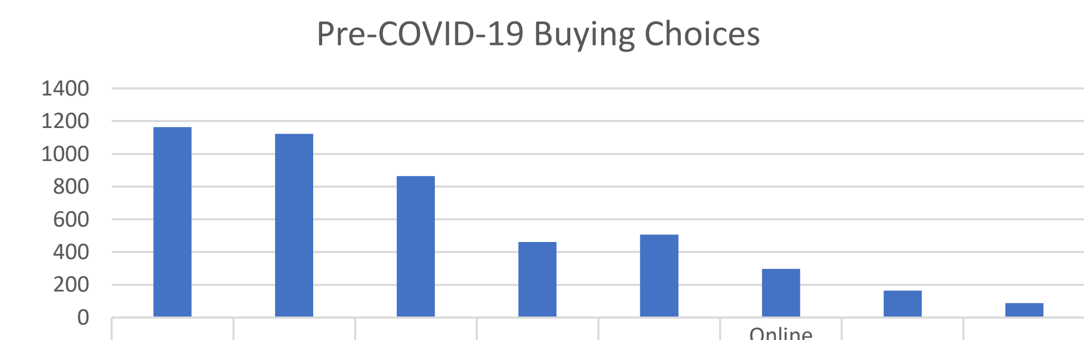
Factor	Pre-COVID-19	Mid-COVID-19
E.L.F.	774 (45.1%)	730 (42.6%)
Maybelline	747 (43.6%)	706 (41.2%)
COVERGIRL	539 (31.4%)	519 (30.3%)
Too Faced	486 (28.3%)	398 (23.3%)
Urban Decay	421 (24.5%)	330 (19.2%)
Wet N Wild	390 (22.7%)	381 (22.2%)
L’Oreal Paris	383 (22.3%)	369 (21.5%)
MAC	383 (22.3%)	331 (19.3%)

Colour Pop	349 (20.3%)	302 (17.6%)
Factor	**Pre-COVID-19**	**Mid-COVID-19**
Fenty Beauty	336 (19.6%)	303 (17.7%)

* Respondents were permitted to select all that apply to this question.

Respondents were also asked where they typically purchased cosmetic products pre-COVID-19 (See Chart 1). The buying choices for pre-COVID-19 were beauty retailers, big box retailers, drug stores, grocery stores, online discount stores, subscriptions, and the other option for choices that were not listed. Beauty retailers like ULTA Beauty and Sephora and big box retailers like Wal-Mart and Target were the most popular buying options at 1,164 and 1,122 participants. Online discount stores and subscription boxes were the least popular at 298 and 164 participants.

Chart 1: Buying Location Choices Made for Pre-COVID-19



	Beauty Retailers (e.g., Ulta Beauty, Sephora, Sally's, etc.)	Big Box Retailers (e.g., Walmart, Target, etc.)	Drug Stores (e.g., Walgreens, CVS, etc.)	Grocery Stores (e.g., Kroger, Publix, etc.)	Online Beauty Retailers (e.g., Ulta Beauty, Sephora, etc.)	Online Discount Stores (e.g., Amazon, Wal-mart.com, etc.)	Subscription Box (e.g., BoxyCharm, Allure, Ispy, etc.)	Other
Results	1164	1122	864	462	506	298	164	88

* Respondents were permitted to select all that apply to this question.

When examining cosmetic purchase locations mid-COVID-19, location options include brick-and-mortar beauty retailers, online beauty retailers, drug stores, and online (See Table 6). Participants were asked the frequency of purchase behavior at each location using a 1 to 5 scale ranging from Never to Always. Although none of the locations was purchased from often, results indicate that drug stores, followed closely by the brick-and-mortar beauty retailers, were purchased from the most often.

Table 6: Current Cosmetic Purchase Behavior by Location

Factor	1	2	3	4	5	Mean
Brick-and-mortar beauty retailers (e.g., ULTA Beauty, Sephora, etc.)	639 (37.2%)	646 (37.7%)	132 (7.7%)	218 (12.7%)	81 (4.7%)	2.10
Online beauty retailers	880 (51.35%)	474 (27.6%)	133 (7.8%)	172 (10%)	56 (3.3%)	1.86
Drug stores (e.g., Walgreens, CVS, etc.)	527 (30.7%)	636 (37.1%)	184 (10.7%)	284 (16.6%)	84 (4.9%)	2.28
Online (Amazon, Wal-Mart, etc.)	895 (52.2%)	456 (26.6%)	107 (6.2%)	189 (11%)	68 (4%)	1.88

Scale ranged from 1 = Never to 5 = Always

Finally, participants were asked where they intend to purchase cosmetics post-COVID-19 (see Table 7). For post-COVID-19, participants used a seven-point scale ranging from extremely unlikely to extremely likely. Respondents were most likely to purchase from drug stores (mean = 4.60), followed closely by brick-and-mortar beauty retailers (mean = 4.41). Online beauty retailers (mean = 3.84) and other online options (mean = 3.73) were more unlikely to be purchased from post-COVID-19.

Table 7: Post-COVID-19 Location Purchase Intentions

Factor	1	2	3	4	5	6	7	Mean (SD)

Brick-and-mortar beauty retailers (e.g., ULTA Beauty, Sephora, etc.)	316 (18.4%)	126 (7.3%)	125 (7.3%)	128 (7.5%)	321 (18.7%)	382 (22.3%)	317 (18.5%)	4.41
Online beauty retailers	436 (25.4%)	175 (10.2%)	136 (7.9%)	162 (9.4%)	309 (18%)	283 (16.5%)	214 (12.5%)	3.84
Factor	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Mean (SD)**
Drug stores (e.g., Walgreens, CVS, etc.)	258 (15%)	116 (6.8%)	91 (5.3%)	144 (8.4%)	403 (23.5%)	380 (22.2%)	323 (18.8%)	4.60
Online (Amazon, Wal-Mart, etc.)	461 (26.9%)	178 (10.4%)	143 (8.3%)	183 (10.7%)	279 (16.3%)	269 (15.7%)	202 (11.8%)	3.73

Likelihood scale ranged from a 1 = Extremely unlikely to 7 = Extremely likely
*Std. Deviation in parentheses

When examining how frequently participants purchase cosmetic products mid-COVID-19 (see Table 8), results show that participants do not typically purchase cosmetics frequently. Nearly 30% (N = 508) of participants currently purchase cosmetics less than once every six months, while 45% (N = 778) of participants stated they purchase cosmetics 1-3 times every six months. 16.6% of participants purchased cosmetics between 4 and 6 times every six months. Only 8.4% (N = 145) purchased cosmetics over 6 times every six months.

Table 8: Mid-COVID-19 Purchase Frequency

Factor	**Mid-COVID-19**
Less than once every six months	508 (29.6%)
1-3 times every six months	778 (45.4%)
4-6 times every six months	284 (16.6%)
7-9 times every six months	78 (4.5%)
10-12 times every six months	44 (2.6%)
More than 12 times every six months	23 (1.3%)
Mean	2.09

Participants were also asked an overall question related to changes in current cosmetic usage (see Table 9). First, participants stated that they still wear the same number of cosmetics at 36.9% (N = 633), while 23.3% (N = 400) of participants stated they still wear makeup but not as often. In addition, 13% (N = 223) of participants stated they still wear makeup a few times a week and, lastly, 26.8% (N = 459) of participants stated they hardly wear makeup anymore. Finally, participants stated that wearing cosmetics was slightly important to them at 35.2% (N = 603), not important at all at 31% (N = 531), and moderately important at 24% (412).

Table 9: Overall Changes in Cosmetic Usage Since COVID-19 Began (March 2020)

Factor	Mid-COVID-19
Not very much (I still wear the same amount of cosmetics.)	633 (36.9%)
Somewhat (I still wear makeup but not as often.)	400 (23.3%)
Moderately (I still wear makeup a few times a week.)	223 (13%)
Drastically (I hardly wear makeup anymore.)	459 (26.8%)
Mean	2.30

Comparison in Attitudes

In order to determine if there were differences in attitudes related to resilience, emotional engagement, positivity, intrinsic motivation, emotional exhaustion, fashion consciousness, attitudes towards brand names, and attitudes towards wearing cosmetics, the first two groups were created. The two groups were split between participants that stated they Never wear cosmetics and participants that stated they wear cosmetics Daily. These two groups were based on the intentions to wear the different cosmetic types post-COVID-19, with respondents predicting they would never wear that cosmetic type in one group. Respondents that stated that they predicted they would wear that cosmetic type daily in the second group. Due to the overwhelming number of respondents who stated they plan on wearing skincare daily, only the cosmetic types of face, eye, and lip were included in this analysis. Using the summed scores for each of the attitudes, a comparison between means using analysis of variance (ANOVA) was completed.

For face cosmetics, there were four attitudes with statistically significant differences. These include emotional engagement, fashion consciousness, attitude toward brand names, and attitude towards wearing cosmetics. Respondents who indicated that they plan on wearing face cosmetics daily had higher emotional engagement and fashion consciousness than those who predicted they would never wear face cosmetics post-COVID-19. In addition, respondents who intended to wear face cosmetics daily had stronger attitudes toward both brand names and wearing cosmetics than those who did not plan on wearing face cosmetics after COVID-19. There were no statistically significant differences between those who stated they would never wear face cosmetics. Those who would always wear face cosmetics post-COVID-19 show resilience, positivity, intrinsic motivation, and emotional exhaustion. See Table 10 below for details related to this analysis.

Table 10: Comparison Between Never and Daily for Face Cosmetic Post-COVID-19 Intentions

Attitude	Mean (Never)	Mean (Daily)	F-Statistic	p-value
Resilience	25.9013	25.7949	0.014	0.907
Emotional Engagement	24.4305	26.5214	5.610	**0.018**
Positivity	37.9596	39.7863	2.679	0.103
Intrinsic Motivation	23.2422	23.7949	1.451	0.229

Emotional Exhaustion	27.3677	26.4530	0.487	0.486
Fashion Consciousness	8.9641	12.7521	58.726	**0.000**
Attitude toward Brand Names	10.8565	15.7521	171.196	**0.000**
Attitude toward Wearing Cosmetics	13.7130	16.8803	26.601	**0.000**

* There were 223 respondents who answered Never and 117 respondents who answered Daily.

When examining the differences between those who stated they would never wear eye cosmetics post-COVID-19 and those who would wear eye cosmetics daily, there were four statistically significant different attitudes (see Table 11). Respondents who intended to wear eye cosmetics daily had statistically higher levels of emotional exhaustion and were more fashion conscious than those who did not intend to wear eye cosmetics post-COVID-19. As with face cosmetics, respondents who planned on wearing eye cosmetics daily also exhibited stronger attitudes toward both brand names and wearing cosmetics than those who did not plan to ever wear eye cosmetics. There were no significant differences between these two groups for resilience, emotional engagement, positivity, and intrinsic motivation.

Table 11: Comparison Between Never and Daily for Eye Cosmetic Post-COVID-19 Intentions

Attitude	**Mean (Never)**	**Mean (Daily)**	**F-Statistic**	**p-value**
Resilience	26.6942	26.0080	0.641	0.424
Emotional Engagement	25.2397	26.2000	1.313	0.253
Positivity	38.5372	39.1000	0.289	0.591
Intrinsic Motivation	23.3719	23.9240	1.805	0.180
Emotional Exhaustion	24.9587	27.3600	3.938	**0.048**
Fashion Consciousness	8.3719	12.0600	56.120	**0.000**
Attitude toward Brand Names	10.5455	14.1960	89.232	**0.000**
Attitude toward Wearing Cosmetics	13.6446	16.4680	25.750	**0.000**

* There were 121 respondents who answered Never and 250 respondents who answered Daily.

For lip cosmetics, there were also four statistically significant differences between respondents who predicted to wear lip cosmetics daily versus those who predicted to never wear lip cosmetics. Respondents who intended to wear lip cosmetics daily were more positive and fashion conscious than those who intend to never wear lip cosmetics. Daily lip cosmetic wearers also had stronger attitudes toward both brand names and wearing cosmetics than those who never intended to wear lip cosmetics post-COVID-19. There were no significant differences between the two groups for resilience, emotional engagement, intrinsic motivation, and emotional exhaustion. See Table 12 for more details.

Table 12: Comparison Between Never and Daily for Lip Cosmetic Post-COVID-19 Intentions

Attitude	Mean (Never)	Mean (Daily)	F-Statistic	p-value
Resilience	25.3186	26.0385	0.772	0.380
Emotional Engagement	24.8319	25.6382	1.123	0.290
Positivity	36.6372	39.1725	7.062	**0.008**
Intrinsic Motivation	23.0708	23.8576	3.868	0.050
Emotional Exhaustion	29.1504	27.2412	2.878	0.090
Fashion Consciousness	9.5841	10.9883	9.277	**0.002**
Attitude toward Brand Names	11.7257	13.0988	13.061	**0.000**
Attitude toward Wearing Cosmetics	13.4071	16.2412	28.465	**0.000**

* There were 113 respondents who answered Never and 597 respondents who answered Daily.

V

Discussions and Implications

Cosmetics companies have been concerned that consumers are not using or purchasing cosmetic products with the same frequency as before COVID-19 due to mask mandates and remote work/school. The likelihood that this reduced cosmetic usage would continue even after COVID-19 was also worrisome for those in the cosmetic industry (Tan, 2020). The cosmetic industry must understand what has changed in consumers' priorities and feelings toward cosmetics post-COVID-19 due to millions of jobs and large companies potentially at stake. Because of this, the goal of this study was to investigate changes in behaviors and attitudes as it relates to cosmetic usage by female MTSU students pre-, mid-, and post-COVID-19.

Survey results show that cosmetic consumers will return to previous behaviors post-COVID-19. Although face, eye, and lip cosmetic usage dwindled mid-COVID-19, post-COVID-19 intentions returned to near pre-COVID-19 levels. Based on the comparison of means, these usage changes between pre-, mid-, and post-COVID-19 were statistically significant, for the most part. Participants reduced their usage of each cosmetic type (face, eye, lip, and skin) mid-COVID-19 as compared to their pre-COVID-19 levels. Participants also intended to increase their cosmetic type usage post-COVID-19 from their mid-COVID-19 levels. The exception was when comparing pre-COVID-19 and post-COVID-19 intentions. Except for face cosmetics, there were no significant differences in pre-COVID-19 and post-COVID-19 intentions for eye, lip, and skin cosmetic types. For face cosmetics, participants used face cosmetics more pre-COVID-19 than they plan to post-COVID-19. Now, many consumers are trading in lipstick and foundation for eye cosmetics and lighter products like lip gloss (King, 2020).

Additionally, these results show that participants will go back to normal usage in eye and lip cosmetics. Skincare remained the highest level of usage pre-, mid-, and post-COVID-19. The National Purchase Diary's (NPD) findings from the 2020 Women's Facial Skincare Consumer Report also support this, with 22% of women stating they changed and increased their skincare routine and usage (2020). With that said, the anticipated return to normal levels of makeup consumption post-COVID-19 is highly positive for the cosmetic industry because the pandemic did not dismantle the need for beauty products. However, there are still shifts in consumer behavior and priorities.

Many consumers have dealt with drastic changes in everyday life, and with that, priorities change. Price has and will continue to be the highest priority for participants and is currently more important than pre- and post-COVID-19. Target is one of many retailers taking price seriously by providing several clean Beauty products, and most products are under $15 (Swanson and Robin, 2020). Next, brand name was important pre-COVID-19, became less essential mid-COVID-19, and is expected to return to previous importance with post-COVID-19 intentions. Many consumers are not as concerned with luxury brand names when on a budget or have far more important things to prioritize. Convenience became more important mid-COVID-19 and will continue to be important post-COVID-19. Considering the many store closures during the height of COVID-19's breakout, finding new easy ways to purchase cosmetics became a higher priority. Additionally, making the overall experience of purchasing cosmetics, without the help of a consultant, became a priority. For example, brands like L'Oreal have virtual makeup software that allows consumers to try on different makeup before making a final purchase (Gilliland, 2021). Color options were important pre-COVID-19 but are now a lower priority. Lastly, trends such as new, unique, and popular products were the lowest priority out of all factors but are expected to reach pre-COVID-19 results for future intentions. Beauty experts state that trends in makeup are becoming a thing of the past, as consumers are more focused on creating their own unique styles (Montell, 2019).

Since results indicated that price and convenience are among the more important factors for post-COVID-19, it makes sense that the top three cosmetic brands mid-COVID-19 are E.L.F. 42.6% (N = 730), Maybelline 41.2% (N = 706), and COVERGIRL 30.3% (N = 519). Each of these brands can be found in drugstores and are among some of the most successful brands within the industry. Tarang Amin, CEO of E.L.F., stated that E.L.F. is a top five beauty brand and has had a successful start to 2020 (Rao, 2020). Next, for mid-COVID-19, 45.4% (N = 778) of participants stated they purchase cosmetics 1-3 times every six months. These results show that consumers are still consistently buying cosmetics. Furthermore, women are beginning to embrace wearing cosmetics at home (Stalder, 2020). Lastly, 36.9% (N = 633) stated they still wear the same amount of cosmetics as they did pre-COVID-19, 23.3% (N = 400) indicated their usage has somewhat changed, but they still use makeup. Lastly, 26.8 % (N = 459) stated their usage changed drastically, and they barely wear makeup anymore. These results show that many women still wear makeup most of the time, but over a quarter of participants stated their usage has drastically changed. Changes from wearing masks and working for home are reasons to consider for future marketing with consumers completely changing their cosmetic purchasing (Altman, 2020).

When analyzing attitudes of consumers, it is important to note that consumers who wear cosmetics frequently appear to be more positive, resilient, and fashion conscious than those who do not wear cosmetics. Samantha Boardman, MD, clinical instructor, advises her patients to put on lipstick if they struggle staying indoors (Stalder, 2020). In fact, studies have shown wearing makeup boosts test scores, which inevitably connects to enhanced productivity (Stalder, 2020). If makeup can improve productivity as well as add much-needed normalcy, it is crucial that cosmetic brands convey this connection. Many consumers are still looking for the balance between working from home and appearing and feeling professional (Creswell, 2020).

Recommendations

Based on the understanding of how women are changing cosmetic usage and importance factors, multiple recommendations can be provided to those in the makeup industry. Some of these recommendations include:

- Maintaining the prices of prestige and luxury cosmetics, since the results do not indicate that high-cost brands should have lower prices
- Incorporating a skincare line into each brand
- Incorporating products like cleansing wipes
- Putting less emphasis on face makeup and more focus on tinted moisturizers, lip cosmetics, eye cosmetics, and skincare products
- Focusing more on natural-looking cosmetics like chapstick, lip gloss, and BB cream
- Putting skincare products in the same aisles as makeup brands
- Making price a priority and fair to cost conscious-consumers
- Having a mass sale promoting the end of the pandemic
- Prioritizing overnight shipping options
- Implementing software or an app for a brand to allow consumers to try on different shades and types of cosmetics
- Creating a color match software
- Recommending make-up ideas on the company’s website for specific products used or purchased
- Providing makeup options when wearing masks
- Offering tips and tricks on what skincare products to use for maskne (mask acne)

- Creating ad campaigns that focus on positive attitudes in wearing makeup again in a fashionable or trendy way
- Creating ad campaigns that are relatable and sympathetic towards cosmetic consumers regarding COVID-19
- Incentivizing loyalty programs, such as gaining points with each purchase for discounts or gifts, that gives consumers more reason to purchase products and visit the company’s website

VI

Limitations and Future Research

In all academic research, limitations exist that provide avenues for further research. First, this study was quite limited because all participants were female Middle Tennessee State University students, and 85.6% (n = 1,468) were between ages 18 and 24. With that said, the age demographic question was not realistically split apart to fit with specific ages of college students, like 18-20. Instead, common options for age demographic answers were used. Furthermore, there are limitations in a study when only surveying college students in one specific university and region because results will be specific to that sample, and the cosmetic industry is incredibly extensive. For future research, it is recommended to take a much larger sample of participants across the country or a wider region so that there is a general consensus of attitudes and behaviors for a broader population. In the instance of this study, college students have relatively low incomes. With the limitations of this college-age study, there is little information or representation about high-cost brands in this study, and this limitation does not fully answer how the pandemic impacted high-end make-up brands, nor does it predict how luxury brands will recover. In addition, although there was a variety of attitudes and factors measured in this study, it is possible that there are other attitudes or importance factors that could be included. Lastly, answer choices provided in the survey related to the purchase locations used pre-, mid-, and post-COVID-19 were not properly matched. One question used a five-point scale while others used a seven-point scale. By not properly assigning each question with the same answer options, it is difficult to compare these results. In the future, it is crucial to make sure the answer options are consistent.

VII

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VIII

Appendices

Appendix A

Recruitment Email

Subject: Please take this survey so I can graduate!!!

Body of the Email:

Dear xxxx,

My name is Katelyn Gardner and I'm working on my Honors thesis. I need your help by completing this short survey. This survey is an extremely important part of my Honors thesis. Without this, I cannot graduate!

Study Description and Purpose: This online survey is designed to help us examine the attitudes of female MTSU students' cosmetic usage.

Duration: Completing the study will take less than 10 minutes.

Risks and Discomforts: The risk to you by participating in this survey is no more than can be expected in daily life or normal use of the internet.

IRB Approval Details:

- Primary Investigator: Katelyn Gardner
- PI Department & College: Marketing, Jones College of Business
- Faculty Advisor: Diane Edmondson
- Protocol Title: Beauty During a Pandemic
- Protocol ID: 21-1058 2q Approval Date: 10/27/2020 Expiration Date: 10/31/2021

Benefits: There are no direct benefits to you. Nonetheless, the intention of the study is to provide insight to the researcher regarding attitudes and feelings toward cosmetic usage pre-, mid-, and post-COVID-19.

Contact Information: If you have any questions you can contact Katelyn Gardner at keg4x@mtmail.mtsu.edu or Diane Edmondson at diane.edmondson@mtsu.edu, (Marketing Department, Jones College of Business, Middle Tennessee State University). Research at Middle Tennessee State University that involves human participants is carried out under the oversight of an Institutional Review Board.

You will be given a chance to read the entire informed consent to assist you make a final determination.

Please access the survey by clicking the Qualtrics link in the bottom of this email.

Thanks in advance for participating in this survey!

Thesis Survey

Start of Block: Block 1

Q1 Are you 18 years old or older?

- Yes, I am 18 years old or older (1)
- No, I am under 18 years old (2)

Q2
Thank you so much for your participation in this short survey.

Information and Disclosure Section
Purpose: This research project is designed to help us better understand attitudes towards cosmetics.
Description: This project involves the completion of an online survey. As part of this study you will be presented with a series of questions. Please think about your cosmetic attitudes and usage when answering these questions. There are no right or wrong answers to any of the questions. Please answer the questions thoughtfully and honestly; the value of this research depends on you doing so. It is very important that you answer every question.
Duration: The whole activity should take less than 10 minutes.

Here are your rights as a participant:

Your participation in this research is voluntary. You may stop the survey at any time. If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. Some items may require a response to accurately present the survey.
Risks & Discomforts: The risk to you by participating in this survey is no more than can be expected in daily life or normal use of the internet.
Benefits: Although there will be no direct benefits due to taking part in this study, the intention of the study is to provide insight to the researcher regarding attitudes and behaviors towards cosmetics.
Identifiable Information: All responses are anonymous. You will NOT be asked to provide identifiable personal information. Your answers will not be tied to you in any way. Internet Protocol addresses will not be collected by the researcher. Responses will be reported only by grouping answers.
Compensation: There is no compensation by the investigators for participating in this study.
Confidentiality. All efforts, within reason, will be made to keep your personal information private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, *if* you or someone else is in danger or if we are required to do so by law.
Contact Information. If you should have any questions about this research study or possibly injury, please feel free to contact Katelyn Gardner by email at keg4x@mtmail.mtsu.edu OR Diane Edmondson by email at diane.edmondson@mtsu.edu. You can also contact the MTSU Office of compliance via telephone (615 494 8918) or by email (compliance@mtsu.edu).

Thank you for agreeing to participate in this project. We greatly appreciate your help! Please mark the circle below to indicate you give your consent to using the information provided for this research.

THIS PAGE MAY BE PRINTED AND KEPT BY EACH PARTICIPANT

Research at Middle Tennessee State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Middle Tennessee State University, 2269 Middle TN Blvd, Murfreesboro, TN 37132, Email: irb_information@mtsu.edu, Tel: 615 898 2400

Again, your participation is greatly appreciated, and thank you for taking the time to complete this survey.

- ○ I give my consent to use the information provided for this research. (1)
- ○ I wish not to participate in the above survey (2)

Q3 We care about the quality of our data. In order for us to get the most accurate measures of your opinions, it is important that you thoughtfully provide your best answers to each question in this survey. Do you commit to thoughtfully provide your best answers to each question in this survey?

- ○ I will provide my best answers (1)
- ○ I will not provide my best answers (2)
- ○ I can't promise either way (3)

End of Block: Block 1

Start of Block: Default Question Block

Q4 How often did you wear the following cosmetics **prior** to the COVID-19 breakout?

	Never (1)	Only on special occasions (job interviews, holidays, etc.) (2)	Less than once a week (3)	1-2 times per week (4)	3-4 times per week (5)	5-6 times per week (6)	Daily (7)
Face cosmetics (eg. foundation, concealer, face power, highlighter, bronzer). (1)	○	○	○	○	○	○	○
Eye cosmetics (eg. eyeshadow, eyeliner, mascara, eyebrow pencil/dip). (2)	○	○	○	○	○	○	○
Lip cosmetics (eg. lipstick, lipliner, lip gloss, chapstick). (3)	○	○	○	○	○	○	○
Skin care (eg. moisturizers, face washes, acne care). (4)	○	○	○	○	○	○	○

Q5 How important are the following factors when buying cosmetics **prior** to COVID-19?

	Very unimportant (1)	Moderately unimportant (2)	Slightly Unimportant (3)	Neither unimportant nor important (4)	Slightly important (5)	Moderately important (6)	Very important (7)
Convenience Where I Purchase It (1)	o	o	o	o	o	o	o
Brand Name (2)	o	o	o	o	o	o	o
Price (3)	o	o	o	o	o	o	o
Color Options Available (4)	o	o	o	o	o	o	o
Trends (5)	o	o	o	o	o	o	o

Q6 What were some of your favorite cosmetic brands **prior** to COVID-19?

- o MAC (1)
- o Urban Decay (2)
- o L'Oréal Paris (3)
- o COVERGIRL (4)
- o Maybelline (5)
- o Revlon (6)
- o E.L.F. Cosmetics (7)
- o Milani (8)
- o Clinique (9)
- o Estee Lauder (10)
- o Too Faced (11)
- o Wet N Wild (12)
- o Almay (13)
- o ColourPop (14)
- o Physicians Formula (15)
- o FENTY (16)
- o Lancôme (17)
- o Other, please specify: (18) ____

Q7 Where did you buy cosmetics **prior** to COVID-19? (Select All that Apply)

- o Beauty Retailers (e.g., ULTA Beauty, Sephora, Sally's, etc.) (1)
- o Big Box Retailers (e.g., Walmart, Target, etc.) (2)
- o Drug Stores (e.g., Walgreens, CVS, etc.) (3)
- o Grocery Stores (e.g., Kroger, Publix, etc.) (4)
- o Online Beauty Retailers (e.g., ULTA BEAUTY or Sephora Online) (5)
- o Online Discount Stores (e.g., Amazon, Walmart.com, etc.) (6)
- o Subscription Box (e.g., BoxyCharm, Allure, Ispy, etc.) (7)
- o Other (please specify): (8) ____

- Q8 How often did you purchase cosmetics **<u>prior</u> to COVID-19?**
- Less than once every six months (1)
- 1-3 times every six months (2)
- 4-6 times every six months (3)
- 7-9 times every six months (4)
- 10-12 times every six months (5)
- More than 12 times every six months (6)

Q9 Overall, how has your cosmetic usage changed since **<u>COVID-19</u>**?
- Not very much (I still wear the same amount of cosmetics.) (1)
- Somewhat (I still wear makeup but not as often.) (2)
- Moderately (I still wear makeup a few times a week.) (3)
- Drastically (I hardly wear makeup anymore.) (4)

End of Block: Default Question Block

Start of Block: Block 2

Q10 How often do you **<u>currently</u>** wear the following cosmetics?

	Never (1)	Only on special occasions (job interviews, holidays, etc.) (2)	Less than once a week (3)	1-2 times per week (4)	3-4 times per week (5)	5-6 times per week (6)	Daily (7)
Face cosmetics (eg. foundation, concealer, face power, highlighter, bronzer). (1)	o	o	o	o	o	o	o
Eye cosmetics (eg. eyeshadow, eyeliner, mascara, eyebrow pencil/dip). (2)	o	o	o	o	o	o	o
Lip cosmetics (eg. lipstick, lipliner, lip gloss, chapstick). (3)	o	o	o	o	o	o	o
Skin care (eg. moisturizers, face washes, acne care). (4)	o	o	o	o	o	o	o

Q11 How important are the following factors when buying cosmetics **currently**?

	Very unimportant (1)	Moderately unimportant (2)	Slightly unimportant (3)	Neither unimportant nor important (4)	Slightly important (5)	Moderately important (6)	Very important (7)
Convenience Where I Purchase It (1)	o	o	o	o	o	o	o
Brand Name (2)	o	o	o	o	o	o	o
Price (3)	o	o	o	o	o	o	o
Color Options Available (4)	o	o	o	o	o	o	o
Trends (5)	o	o	o	o	o	o	o

Q12 What are some of your favorite cosmetic brands **currently?** (Select All that Apply)

- o MAC (1)
- o Urban Decay (2)
- o L'Oréal Paris (3)
- o COVERGIRL (4)
- o Maybelline (5)
- o Revlon (6)
- o E.L.F. Cosmetics (7)
- o Milani (8)
- o Clinique (9)
- o Estee Lauder (10)
- o Too Faced (11)
- o Wet N Wild (12)
- o Almay (13)
- o ColourPop (14)
- o Physicians Formula (15)
- o FENTY (16)
- o Lancôme (17)
- o Other (18) ________________________________

Q13 How often do you **currently** purchase cosmetics at each of the following store types?

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Brick-and-mortar Beauty retailers (eg. ULTA BEAUTY Beauty, Sephora, etc.) (1)	o	o	o	o	o
Online Beauty retailers (2)	o	o	o	o	o
Drug store (eg. Walgreens, CVS, etc.) (3)	o	o	o	o	o
Online (eg. Amazon, Wal-Mart, etc.) (4)	o	o	o	o	o
Other (5)	o	o	o	o	o

Q14 Overall, how important is it for you to wear cosmetics?

- o Not at all important (1)
- o Slightly important (2)
- o Moderately important (3)
- o Very important (4)
- o Extremely important (5)

End of Block: Block 2

Start of Block: Block 3

Q15 How often do you see yourself wearing the following cosmetics **post-COVID-19?**

	Never (1)	Only on special occasions (job interviews, holidays, etc.) (2)	Less than once a week (3)	1-2 times per week (4)	3-4 times per week (5)	5-6 times per week (6)	Daily (7)
Face cosmetics (eg. foundation, concealer, face power, highlighter, bronzer). (1)	o	o	o	o	o	o	o
Eye cosmetics (eg. eyeshadow, eyeliner, mascara, eyebrow pencil/dip). (2)	o	o	o	o	o	o	o
Lip cosmetics (eg. lipstick, lipliner, lip gloss, chapstick). (3)	o	o	o	o	o	o	o
Skin care (eg. moisturizers, face washes, acne care). (4)	o	o	o	o	o	o	o

Q16 How important might the following factors be when buying cosmetics **post-COVID-19**?

	Very unimportant (1)	Moderately unimportant (2)	Slightly unimportant (3)	Neither unimportant nor important (4)	Slightly important (5)	Moderately important (6)	Very important (7)
Convenience Where I Purchase It (1)	o	o	o	o	o	o	o
Brand Name (2)	o	o	o	o	o	o	o
Price (3)	o	o	o	o	o	o	o
Color Options Available (4)	o	o	o	o	o	o	o
Trends (5)	o	o	o	o	o	o	o

Q17 How likely are you to purchase cosmetics **post-COVID-19** at each of the following locations?

	Extremely unlikely (1)	Moderately unlikely (2)	Slightly unlikely (3)	Neither likely nor unlikely (4)	Slightly likely (5)	Moderately likely (6)	Extremely likely (7)
Brick-and-mortar Beauty retailers (eg. ULTA BEAUTY Beauty, Sephora, etc.) (1)	o	o	o	o	o	o	o
Online Beauty retailers (2)	o	o	o	o	o	o	o
Drug store (eg. Walgreens, CVS, etc.) (3)	o	o	o	o	o	o	o
Online (eg. Amazon, Wal-Mart, etc.) (4)	o	o	o	o	o	o	o
Other (5)	o	o	o	o	o	o	o

End of Block: Block 3

Start of Block: Block 4

Q18 Indicate the extent to which you agree or disagree with the following statements.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I tend to bounce back quickly after hard times. (1)	○	○	○	○	○	○	○
I have a hard time making it through stressful events. (2)	○	○	○	○	○	○	○
It does not take me long to recover from a stressful event. (3)	○	○	○	○	○	○	○
It is hard for me to snap back when something bad happens. (4)	○	○	○	○	○	○	○
I usually come through difficult times with little trouble. (5)	○	○	○	○	○	○	○
I tend to take a long time to get over set-backs in my life. (6)	○	○	○	○	○	○	○

Q19 Select the answer choice that best describes how you **typically feel** about your **day-to-day** life?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I am enthusiastic in my life. (1)	•	•	•	•	•	•	•
I feel energetic at my life. (2)	•	•	•	•	•	•	•
I am excited about my life. (3)	•	•	•	•	•	•	•
I feel positive about my life. (4)	•	•	•	•	•	•	•
I am interested in my life. (5)	•	•	•	•	•	•	•

Q20 Please indicate the extent to which you agree or disagree with the following statements.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I have great faith in the future. (1)	•	•	•	•	•	•	•
I am satisfied with my life. (2)	•	•	•	•	•	•	•
Others are generally here for me when I need them. (3)	•	•	•	•	•	•	•
I look forward to the future with hope and enthusiasm. (4)	•	•	•	•	•	•	•
On the whole, I am satisfied with myself. (5)	•	•	•	•	•	•	•
At times, the future seems unclear to me. (6)	•	•	•	•	•	•	•
I feel I have many things to be proud of. (7)	•	•	•	•	•	•	•
I generally feel confident in myself. (8)	•	•	•	•	•	•	•
Please select "2" to show you are paying attention (9)	•	•	•	•	•	•	•

Q21 For each of the following statements and/or questions, please indicate the point on the scale that you feel is most appropriate in describing you.

	1 (1)	2 (2)	(3)	(4)	(5)	(6)	(7)	
In general, I consider myself	•	•	•	•	•	•	•	not a very happy person
Compared with most of my peers, I consider myself	•	•	•	•	•	•	•	less happy
Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? not at all	•	•	•	•	•	•	•	a great deal
Some people are generally NOT very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you? not at all	•	•	•	•	•	•	•	a great deal

Q22 Please indicate the extent to which you agree or disagree with the following statements.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
When I perform well, I know it's because of my own desire to achieve. (1)	•	•	•	•	•	•	•
I obtain a sense of accomplishment from my life. (2)	•	•	•	•	•	•	•
Becoming successful in life is something that I want to do for me. (3)	•	•	•	•	•	•	•
I feel a sense of personal growth and development in my life. (4)	•	•	•	•	•	•	•

Q23 Select the answer choice that best describes how you **typically feel** about your current **day-to-day** life.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I feel emotionally drained. (1)	•	•	•	•	•	•	•
I feel used up at the end of the day. (2)	•	•	•	•	•	•	•
I feel fatigued when I get up in the morning and have to face another day. (3)	•	•	•	•	•	•	•
I feel burned out from my life. (4)	•	•	•	•	•	•	•
I feel frustrated. (5)	•	•	•	•	•	•	•
I feel I'm working too hard in my life. (6)	•	•	•	•	•	•	•
I feel like I'm at the end of my rope. (7)	•	•	•	•	•	•	•

Q24 Indicate the extent to which you agree or disagree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I pay attention to the brand names of the products I purchase. (1)	○	○	○	○	○	○	○
Sometimes I am willing to pay more for a product because of its brand name. (2)	○	○	○	○	○	○	○
I believe the products I purchase are a reflection of who I am. (3)	○	○	○	○	○	○	○
I think products that are more expensive are typically better. (4)	○	○	○	○	○	○	○

Q25 Overall, wearing cosmetics is...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Very unimportant	•	•	•	•	•	•	•	Very important
Very negative	•	•	•	•	•	•	•	Very positive
Very bad	•	•	•	•	•	•	•	Very good

Q26 Overall, how does wearing cosmetics impact your confidence?

- ○ Not at all impactful (1)
- ○ Slightly impactful (2)
- ○ Moderately impactful (3)
- ○ Extremely impactful (4)

Q27 Overall, how does wearing cosmetics make you feel?

- ○ Extremely unhappy (1)
- ○ Moderately unhappy (2)
- ○ Slightly unhappy (3)
- ○ Neither happy nor unhappy (4)
- ○ Slightly happy (5)
- ○ Moderately happy (6)
- ○ Extremely happy (7)

Q28 Indicate the extent to which you agree or disagree with the following statements.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
When I must choose between the two, I usually dress for fashion, not for comfort. (1)	•	•	•	•	•	•	•
An important part of my life is dressing fashionably. (2)	•	•	•	•	•	•	•
A person should try to dress in style. (3)	•	•	•	•	•	•	•

Q29 What age group do you fall in?

- ○ 18-24 (1)
- ○ 25-34 (2)
- ○ 35-44 (3)
- ○ 45-54 (4)
- ○ 55-64 (5)
- ○ 65+ (6)

Q30 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Prefer not to say (3)

Q31 What is your ethnicity?

- ○ White (1)
- ○ Black or African American (2)
- ○ American Indian or Alaska Native (3)
- ○ Asian (4)
- ○ Native Hawaiian or Pacific Islander (5)
- ○ Other (6) ____

Q32 What class are you in?

- ○ Freshman (1)
- ○ Sophomore (2)
- ○ Junior (3)
- ○ Senior (4)
- ○ Graduate student (5)

Q33 Are you a student athlete?

- ○ Yes (1)
- ○ No (2)

Display This Question:
If Are you a student athlete? = Yes

Q34 If so, please select what sport(s) you play.

- Baseball (1)
- Basketball (2)
- Football (3)
- Golf (4)
- Track (5)
- Volleyball (6)
- Soccer (7)
- Tennis (8)
- Dance (9)
- Cheerleading (10)
- Other (11) ____

Q35 What type of classes do you have this semester? (Check All That Apply)

- In-person (1)
- Remote (eg. Zoom) (2)
- Online (asynchronous) (3)
- Hybrid (4)

Q36 What is your employment status?

- Part-time (1)
- Full-time (2)
- Military (3)
- Not currently working (4)

Q37 What is your current work environment?

- Remote (e.g., Zoom) (1)
- Online (asynchronous) (2)
- In-person (3)
- Mix of Remote, online and/or In-person (4)
- I'm not currently working (5)

Q38 How many hours do you volunteer per month?

- I don't currently volunteer. (1)
- 1-4 hours per month (2)
- 5-9 hours per month (3)
- 10-14 hours per month (4)
- 15-19 hours per month (5)
- More than 20 hours per month (6)

Q39 What is you martial status?

- Single. never married (1)
- Married (2)
- Single but in a committed relationship (3)
- Widowed (4)
- Divorced (5)
- Separated (6)

Q40 On average, what is your **personal** income?

- I have no personal income. (1)
- Below $10,000 (2)
- $10,000-$24,999 (3)
- $25,000-$49,999 (4)
- $50,000-$74,999 (5)
- Over $75,000 (6)

End of Block: Block 5

Appendix B

INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
010A Sam Ingram Bldg, 2269 Middle Tennessee Blvd
Murfreesboro, TN 37129
FWA: 00005331/IRB Regn.. 0003571

IRBN007 – EXEMPTION DETERMINATION NOTICE

Tuesday, October 27, 2020

Protocol Title	***Beauty During a Pandemic: The Impact COVID-19 has had on the Cosmetic Industry***
Protocol ID	**21-1058 2q**
Principal Investigator	**Katelyn Gardner** (Student)
Faculty Advisor	Diane Edmondson
Co-Investigators	NONE
Investigator Email(s)	*keg4x@mtmail.mtsu.edu; diane.edmondson@mtsu.edu*
Department/Affiliation	Marketing

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category ***(2) Educational Tests, surveys, interviews or observations of public behavior*** *(Qualtrics Survey).* A summary of the IRB action and other particulars of this protocol are shown below:

IRB Action	**EXEMPT from furhter IRB review*****		
Date of Expiration	**10/31/2021**	*Date of Approval:* **10/27/20**	*Recent Amendment:* NONE
Sample Size	ONE HUNDRED (100)		
Participant Pool	**Healthy adults (18 or older) - Female MTSU Students**		

Exceptions	Online consent followed by internet-based survey using Qualtrics is permitted (Qualtrics links on file).
Type of Interaction	Virtual/Remote/Online Interview/survey In person or physical– Mandatory COVID-19 Management (refer next page)
Mandatory Restrictions	**1. All restrictions for exemption apply.** **2. The participants must be 18 years or older.** **3. Mandatory ACTIVE informed consent. Identifyable information including, names, addresses, voice/video data, must not be obtained.** **4. NOT approved for in-person data collection.**
Approved IRB Templates	*IRB Templates:* Online Informed Consent *Non-MTSU Templates:* Recruitment Email
Research Inducement	NONE
Comments	NONE

***Although this exemption determination allows above defined protocol from further IRB review, such as continuing review, MTSU IRB will continue to give regulatory oversight to ensure compliance.

Summary of the Post-approval Requirements: The PI and FA must read and abide by the post-approval conditions (Refer "*Quick Links*" in the bottom):

- ***Final Report:*** The Faculty Advisor (FA) is responsible for submitting a final report to close-out this protocol before **10/31/2021**; if more time is needed to complete the data collection, the FA must request an extension by email. REMINDERS WILL NOT BE SENT. **Failure to close-out (or request extension) may result in penalties** including cancellation of the data collected using this protocol or withholding student diploma.
- ***Protocol Amendments***: IRB approval must be obtained for all types of amendments, such as:
  - Addition/removal of subject population and sample size.
  - Change in investigators.
  - Changes to the research sites – appropriate permission letter(s) from may be needed.
  - Alternation to funding.
  - Amendments must be clearly described in an addendum request form submitted by the FA.
  - The proposed change must be consistent with the approved protocol and they must comply with exemption requirements.

- ***Research Participant Compensation:*** Compensation for research participation must be awarded as
  proposed in Chapter 6 of the Exempt protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- ***COVID-19:*** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

COVID-19 Management:
The FA must enforce social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an “adverse event.”
- The FA must enforce the MTSU’s “Return-to-work” questionnaire found in Pipeline must be filled and signed by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from the each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA’s Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the PI will be instructed to carryout remedial measures if needed.

Post-approval Protocol Amendments:
The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would not result in the cancellation of the protocol’s eligibility for exemption. ***Only THREE procedural amendments will be entertained per year*** *(changes like addition/removal of research personnel are not restricted by this rule).*

Date	**Amendment (s)**	**IRB Comments**
NONE	NONE.	NONE

Post-approval IRB Actions:
The following actions are done subsequent to the approval of this protocol on request by the PI or on recommendation by the IRB or by both.

Date	[illegible]	**IRB Comment**
NONE	NONE.	NONE

Mandatory Data Storage Requirement:
All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data must be stored for at least three (3) years after the study is closed. Additionally, the Tennessee

State data retention requirement may apply (*refer “Quick Links” below for policy 129*). Subsequently, the data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects. **The IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this notice**. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php
- Exemption Procedures: https://mtsu.edu/irb/ExemptPaperWork.php
- MTSU Policy 129: Records retention & Disposal: https://www.mtsu.edu/policies/general/129.php