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# THE EFFECT OF VIRTUAL TRY-ON ON CONSUMER SATISFACTION: THE MEDIATING ROLES OF EMOTIONS AND COGNITION IN INDONESIAN BEAUTY BRANDS

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***Abstract***
*This study aims to analyze the effect of virtual product trial features on customer satisfaction, with emotions and cognitive processes as mediating variables, for beauty brands in Indonesia. This study employs quantitative research methods. All consumers of beauty products who used the virtual trial feature when trying out products were part of this study's population. The research sample was obtained through non-probability sampling using purposive sampling techniques, involving 100 respondents. Data were collected through questionnaires and analyzed using SmartPLS 3. The results of this study indicate that (1) Emotion mediates the positive influence of Aesthetics on Consumer Satisfaction; (2) Cognition mediates the positive influence of Aesthetics on Consumer Satisfaction; (3) Emotion mediates the positive influence of Vividness on Consumer Satisfaction; (4) Cognition does not mediate the effect of vividness on consumer satisfaction; (5) Emotion does not mediate the effect of interactivity on consumer satisfaction; (6) Cognition does not mediate the effect of interactivity on consumer satisfaction; (7) Emotion has a positive effect on consumer satisfaction; and (8) Cognition has a positive effect on consumer satisfaction.*
***Keywords****: Augmented Reality; Virtual Try-On; Emotions; Cognitive Processes; Consumer Satisfaction*

## 1. Introduction

The beauty industry in Indonesia has experienced rapid growth, as reflected in a 21.9 percent increase in the number of cosmetics companies from 913 in 2022 to 1,010 by mid-2023 (Inang, 2024). Innovations within the beauty industry have also evolved, driven in part by the increasingly diverse consumer demand for personal care products. Consequently, beauty product manufacturers must do their utmost to meet this demand for personal care products. Beauty product innovations are diverse, encompassing product types, packaging, and ingredients.

Cosmetics are an essential part of women's daily lives. Not only do they enhance appearance, but these beauty products are also often considered indispensable for their daily routines. In this era of rapidly advancing technology, marketers have the opportunity to create innovative and effective promotional tools to introduce and promote their products to target consumers. One such tool is an app that connects brands with consumers in real time by blending the real world with the virtual world such as through virtual try-on features.

According to research conducted by Mordor Intelligence (as reported in Databoks, 2024), total spending on beauty products in Indonesia has shown consistent growth since 2020, with a compound annual growth rate (CAGR) of 7%. In 2020, spending on beauty products reached Rp 175 trillion; in 2021, it reached Rp 193 trillion; in 2022, it reached Rp 219 trillion; in 2023, it reached Rp 233 trillion; and in 2024, it reached Rp 256 trillion. According to a study conducted by Insight Factory (2024), the largest segments in the beauty industry are Millennials and Generation Z. Generation Z accounts for 54% of the market, while Millennials account for 41%.

One challenge for companies is helping consumers choose beauty products that meet their needs while also convincing them to purchase those products from the company. Companies need to design effective strategies to address this challenge. Technological advancements are driving companies to adopt virtual product trial features as part of their digital marketing strategies. These features aim to enhance the customer experience through elements such as aesthetics, vividness,

and interactivity, which can influence consumer satisfaction through emotional and cognitive processes.

## 2. Literature Review

### *2.1 Stimulus-Organism-Response (SOR)*

According to Simanihuruk et al. (2023), the S-O-R Model explains that consumer behavior is shaped through the interaction of three main elements: stimulus, organism, and response. The stimulus is an external factor that influences the consumer; the organism is the internal process within the consumer that processes the stimulus; and the response is the behavior or action that results from that process. According to Mehrabian and Russell, 1974 (as cited in Lin et al., 2024), in the S-O-R model, external factors are consideres ad stimuli that provoke individual responses, and psychological responses are mediated through the organism, illustrating the impact of stimuli on consumers' psychology and behavior. The stimulus (S) component in this study focuses on three elements of the virtual product trial*:* aesthetics, vividness, and interactivity. The organism (O) component consists of emotions and cognitive processes. The response (R) component focuses on consumer satisfaction.

### *2.2 Augmented Reality*

According to Orlosky *et al.,* 2017 (as cited in Zeynep Tacgin, 2020), Augmented Reality (AR) is a technology that overlays digital information onto the real world. This technology makes our environment more sophisticated, allowing users to complete their tasks more easily. The key feature of Augmented Reality is its ability to provide an immediate and real-time experience based on location and time, engaging all our senses through a simple yet sophisticated interface (Zeynep Tacgin, 2020). Some elements present in virtual product trials include interactivity, vividness, and aesthetics,

#### *2.2.1 Interactivity*

According to Yim et al., 2017 (as cited in Kim et al., 2022), interactivity refers to technology that enables consumers to participate in and control a website, including communication between consumers and sellers. According to Lin et al., (2024), when consumers experience a product virtually, it is not only the quality of the product's design that matters, but the consumer's emotional experience is equally important.

#### *2.2.2 Vividness*

According to Steuer, 1992 (as cited in Kim et al., 2022), vividness is the ability of technology to create experiences rich in sensory elements, making them feel realistic. This refers to how technology can present an environment that feels alive and real. Baytar et al., 2020 (as cited in Susilowati et al., 2023) state that vividness is optimized when it presents reality or objects as clearly as possible, almost resembling reality.

#### *2.2.3 Aesthetics*

Aesthetics is a response involving feelings of liking or disliking that arise from sensory perception of an object. The object may be considered beautiful, provide a sense of comfort, or create a pleasant impression through sight, touch, or hearing (Hekkert and Schifferstein, 2008, as cited in Rantamaa, 2023). According to Hoyer et al., 2020 (cited in Rantamaa, 2023**),** aesthetic experiences in virtual product trials can create cognitive, sensory, emotional, and social value.

### *2.3 Consumer Satisfaction*

Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing the perceived performance or results of a product or service with their expectations. If the performance or experience does not meet expectations, customers will feel dissatisfied. However, if it meets expectations, the customer will be satisfied. If it exceeds expectations, the customer will be highly satisfied and happy (Kotler et al., 2022). In general, product

performance that exceeds expectations tends to create satisfaction and can sometimes lead to customer loyalty (Mothersbaugh and Hawkins, 2016).

### *2.4 Emotions or Hedonic Factors*

According to Mothersbaugh and Hawkins (2016), emotions are strong and relatively uncontrollable feelings that can influence behavior. According to Picot et al., 2021 (as cited in Tom Dieck et al., 2024), emotions are an important part of hedonic experiences because these experiences are driven by internal motivational factors (intrinsic motivation) that produce feelings of pleasure, enjoyment, and joy.

### *2.5 Cognitive or Utilitarian Processes*

According to Motherbaugh and Hawkins (2016), cognitive (thinking) and emotional (feelings) processes are important at every stage of the decision-making process. The cognitive component consists of consumers' beliefs about a product or object. According to Grenne, 2012 (in Tinghog et al., 2016), a specifically controlled cognitive process will promote utilitarian judgment.

### *2.6 Formulation of Hypotheses*

#### *2.6.1 The influence of aesthetics on consumer satisfaction, mediated by emotions*

According to Stockdale and Borovicka (2006), as cited in Shalabi et al., (2024), a brand's aesthetic qualities relate to consumers' perceptions of beauty, and emotional and cognitive responses to imagery may also include sensory reactions. This is also consistent with research conducted by Shalabi et al. (2024), which found that aesthetics in VR experiences have a significant positive effect on customer satisfaction, and hedonic or emotional responses partially mediate this effect. Based on the above explanation, the following hypothesis can be formulated:

**H1: Emotion mediates the positive influence of aesthetics on consumer satisfaction.**

#### *2.6.2 The Effect of Aesthetics on Consumer Satisfaction Mediated by Cognition*

Shalabi et al., (2024) state that Aesthetics, which refers to VR experiences, has a significant positive effect on customer satisfaction, and this effect is partially mediated by utilitarian responses or cognition. Zeng et al. (2023) state that a brand's beauty is related to how consumers perceive and experience that beauty. Based on the above explanation, the following hypothesis can be formulated:

**H2: Cognition mediates the positive influence of aesthetics on consumer satisfaction**

#### *2.6.3 The effect of vividness on consumer satisfaction, mediated by emotion*

Research conducted by Attri et al. (2024) indicates that Vividness positively influences customers perceptions of the hedonic value of their AR experiences in physical stores. Yim et al., 2017 (in Jung-Hwan et al., 2021), state that, in the context of virtual product trials, a high level of Vividness positively affects consumer evaluations, particularly by enhancing perceptions of usefulness and enjoyment through a sense of presence. Based on the above explanation, the following hypotheses can be formulated:

**H3: Emotion mediates the positive effect of Vividness on Consumer Satisfaction**

#### *2.6.4 The effect of Vividness on consumer satisfaction mediated by Cognition*

Research conducted by Attri et al. (2024) indicates that vividness positively influences customers utilitarian value perceptions of their AR experiences in physical stores. Keller and Block (1997, as cited in Brannon Barhorst et al., 2021) state that in AR, a product with a higher level of vividness influences the consumer's cognitive process. Based on the above explanation, the following hypotheses can be formulated:

**H4: Cognition mediates the positive effect of Vividness on consumer satisfaction.**

#### *2.6.5 The effect of interactivity on consumer satisfaction, mediated by emotion*

Huang and Liao, 2015 (as cited in Hsuan et al., 2021) state that highly interactive AR experiences generate high levels of joy, thereby linking interactivity to the hedonic dimension of consumer behavior. AR features such as vividness and interactivity positively influence consumer engagement, thereby increasing satisfaction and loyalty (Sinha and Srivastava, 2023). Based on the above explanation, the following hypothesis can be formulated:

**H5: Emotion mediates the positive effect of interactivity on consumer satisfaction**

#### *2.6.6 The effect of interactivity on consumer satisfaction, mediated by cognition*

Research conducted by Lin et al. (2024) indicates that interactivity in virtual clothing positively influences consumer satisfaction. The interactivity of virtual clothing allows consumers to customize and try on different outfits in real time within a virtual environment. According to Rahimizhian et al., 2020 (as cited in Lin et al., 2024), the real-time interaction mode of virtual applications can increase user satisfaction and significantly influence consumer purchase intent. Based on the above explanation, the following hypothesis can be formulated:

**H6: Cognition mediates the positive effect of interactivity on consumer satisfaction**

#### *2.6.7 The effect of emotion on consumer satisfaction*

According to Rahimizhian et al., 2020 (in Lin et al., 2024), when the perceived quality of a virtual product meets or exceeds consumer expectations, it typically results in high satisfaction, thereby triggering a positive emotional response. According to Lu and Hsiao, 2022 (in Lin et al., 2024), satisfaction is formed from product attributes and the feelings generated by interactive experiences, such as virtual trials. Based on the above explanation, the following hypothesis can be formulated:

**H7: Emotions have a positive effect on consumer satisfaction**

#### *2.6.8 The Influence of Cognition on Consumer Satisfaction*

Shalabi et al. (2024) state that cognition has a significant positive effect on customer satisfaction. According to Ashfaq et al., 2019 (as cited in Gabriel et al., 2023), satisfaction is a response typically cognitive or emotional that occurs when an individual has engaged in an activity, where the level of satisfaction is determined by the extent to which the activity meets their hopes, expectations, needs, and so on. Based on the above explanation, the following hypothesis can be formulated:

**H8: Cognition has a positive effect on consumer satisfaction**

## 3. Research Methods

This study employed a quantitative research method. The data used in this study were primary data obtained through the collection of responses to questions included in a questionnaire distributed to respondents. This study was conducted online and involved consumers who used the virtual product trial feature to test beauty products. The sampling technique used in this study was nonprobability sampling with a purposive sampling approach, with a total sample size of 100 respondents. The researcher selected participants based on the criteria of beauty product consumers who use the virtual product trial feature when purchasing products, specifically those aged 13–28 (Generation Z). The data collection method used in this study involved distributing questionnaires to respondents online via Google Forms through Instagram, WhatsApp, and Twitter. The measurement scale used for the variables in this study is the Likert scale (1–5). Data analysis will be conducted using SmartPLS 3.0 software. This study involves three variables: independent variables: Aesthetics, Vividness, and Interactivity, the dependent variable: Consumer Satisfaction; and mediating variables: Emotions and Cognitive Processes.

## 4. Research Findings and Discussion

### *4.1 Outer Model*

Based on the calculations, the outer loading for one of the Vividness variables in item VV4 is 0.562, indicating that it is invalid because the value is below the required threshold of >0.6. Therefore, that item must be removed. Consequently, the outer loadings after the removal are as follows:

Table 1. Outer Loading

| No | Question Item | Outer Loading Value | Status |
|---|---|---|---|
| 1 | AE1 | 0.762 | Valid |
| 2 | AE2 | 0.848 | Valid |
| 3 | AE3 | 0.755 | Valid |
| 4 | IN1 | 0.618 | Valid |
| 5 | IN2 | 0.808 | Valid |
| 6 | IN3 | 0.659 | Valid |
| 7 | IN3 | 0.800 | Valid |
| 8 | VV1 | 0.803 | Valid |
| 9 | VV2 | 0.868 | Valid |
| 10 | VV3 | 0.633 | Valid |
| 11 | KK1 | 0.889 | Valid |
| 12 | KK2 | 0.905 | Valid |
| 13 | KK3 | 0.787 | Valid |
| 14 | KK4 | 0.884 | Valid |
| 15 | EM1 | 0.840 | Valid |
| 16 | EM2 | 0.840 | Valid |
| 17 | EM3 | 0.817 | Valid |
| 18 | PK1 | 0.798 | Valid |
| 19 | PK2 | 0.776 | Valid |
| 20 | PK3 | 0.848 | Valid |

Source: Data processed using *SmartPLS* 3.0 (2025)

After removing item VV4, all statement items met the criterion for convergent validity, namely >0.6. Therefore, all of these statement items were deemed valid. In addition to Outer Loading, another measure used to assess convergent validity is Average Variance Extracted (AVE).

Table 2. Average Variance Extracted (AVE) Values.

| No | Variable | AVE Value | Status |
|---|---|---|---|
| 1 | Aesthetics | 0.634 | Valid |
| 2 | Vividness | 0.600 | Valid |
| 3 | Interactivity | 0.527 | Valid |
| 4 | Customer Satisfaction | 0.752 | Valid |
| 5 | Emotions | 0.693 | Valid |
| 6 | Cognitive Processes | 0.653 | Valid |

Source: Data processed using *SmartPLS* 3.0 (2025)

Based on the table above, the Average Variance Extracted (AVE) values for all variables are considered valid because they meet the AVE criterion of >0.50.

According to Hair Jr. et al. (2020), the Fornell-Larcker criterion is an approach for assessing discriminant validity. This approach compares the square root of the AVE value with the correlation of the latent variable. The square root of the AVE for each construct must be greater than the correlation with other constructs.

Table 3. Fornell-Larcker Criterion Values

| | Aesthetics | Vividness | Interactivity | Consumer Satisfaction | Emotions | Cognitive Process |
|---|---|---|---|---|---|---|
| Aesthetics | **0.796** | | | | | |
| Vividness | 0.520 | **0.774** | | | | |
| Interactivity | 0.446 | 0.447 | **0.726** | | | |
| Customer Satisfaction | 0.638 | 0.587 | 0.421 | **0.867** | | |
| Emotions | 0.555 | 0.598 | 0.424 | 0.649 | **0.832** | |
| Cognitive Processes | 0.626 | 0.412 | 0.417 | 0.653 | 0.560 | **0.808** |

Source: Data processed using *SmartPLS* 3.0 (2025)

Based on Table 3, all variables have Fornell-Larcker Criterion values higher than those of other latent variables, thus they are deemed valid based on the discriminant validity test. Next, a reliability test was conducted to measure the internal consistency of the measurement instrument. According to Hair Jr. *et al.* (2020), a Cronbach's alpha or composite reliability value that meets the rule of thumb is >0.7, while a value of 0.6 is still acceptable.

Table 4. Cronbach's Alpha and Composite Reliability Values

| Variable | Cronbach's Alpha | Composite Reliability | Status |
|---|---|---|---|
| Aesthetics | 0.713 | 0.838 | Reliable |
| Vividness | 0.655 | 0.815 | Reliable |
| Interactivity | 0.701 | 0.815 | Reliable |
| Customer Satisfaction | 0.890 | 0.924 | Reliable |
| Emotions | 0.778 | 0.871 | Reliable |
| Cognitive Processes | 0.734 | 0.849 | Reliable |

Source: Data analyzed using *SmartPLS* 3.0 (2025)

Based on Table 4, the Cronbach's alpha and composite reliability values indicate that all variables are reliable because they meet the established criteria namely, a Cronbach's alpha or composite reliability value greater than 0.7. However, a value of 0.6 is still considered acceptable. Regarding Cronbach's alpha, the Consumer Satisfaction variable had the highest value at 0.890, while the lowest value was for the Vividness variable at 0.655. For Composite Reliability, the highest value was for the Consumer Satisfaction variable at 0.924, and the lowest values were for the Vividness and Interactivity variables, both at 0.815.

### *4.2 Inner Model*

Inner Model testing was conducted by measuring the R-squared and F-squared values. The *R-squared* value ($R^2$) is used to measure the extent to which the independent variables influence the dependent variable. The F-squared value ($F^2$) is used to determine the extent to which the mediating variable contributes to explaining the dependent variable in a model.

**Table 5. $R^2$ Values**

| No | Variable | $R^2$ Value |
|---|---|---|
| 1 | Customer Satisfaction | 0.543 |
| 2 | Emotions | 0.448 |
| 3 | Cognitive Processes | 0.420 |

Source: Data analyzed using *SmartPLS* 3.0 (2025)

Based on Table 5, the R-squared value indicates that Aesthetics, Vividness, and Interactivity can explain 54.3% of Consumer Satisfaction, while other variables outside the scope of this study explain 45.7%. Meanwhile, Emotion has an R-squared value of 0.448, meaning that 44.8% can be explained by these three variables and 55.2% by other variables. As for the Cognitive Process, it has an R-squared value of 0.420, indicating that Aesthetics, Vividness, and Interactivity can explain 42%, while other variables outside the scope of this

study explain 58%.

**Table 6. $F^2$ Values**

| | Emotion | Consumer Satisfaction | Cognitive Process |
|---|---|---|---|
| Aesthetics | 0.110 | | 0.314 |
| Emotion | | 0.255 | |
| Interactivity | 0.018 | | 0.030 |
| Customer Satisfaction | | | |
| Cognitive Process | | 0.268 | |
| Vividness | 0.185 | | 0.006 |

Source: Data processed using *SmartPLS* 3.0 (2025)

Based on Table 6, the F-square values indicate that Aesthetics has a moderate effect on Emotion (0.110) and a large effect on Cognitive Processes (0.314). Interactivity has a low effect on Emotion (0.018) and Cognitive Process (0.030), while Vividness has a moderate effect on Emotion (0.185) and no effect on Cognitive Process (0.006). Emotion (0.255) and Cognitive Process (0.268) each have a moderate effect on Consumer Satisfaction. The strongest effect is that of Aesthetics on Cognitive Process, with a value of 0.314.

### *4.3 Hypothesis Testing*

Hypothesis testing was conducted to determine the relationships and the significance of the effects among the variables in this study.

**Table 7 Path Coefficients**

| Variable | Original sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Statistic (\|O/STDEV\|) | P-Values | Status |
|---|---|---|---|---|---|---|
| Aesthetics - Emotion - Customer Satisfaction | 0.124 | 0.128 | 0.055 | 2.266 | 0.024 | Significant |
| Aesthetics - Cognition - Customer Satisfaction | 0.220 | 0.214 | 0.069 | 3,188 | 0.002 | Significant |
| Vividness - Emotion - Customer Satisfaction | 0.161 | 0.156 | 0.050 | 3.3220 | 0.001 | Significant |
| Vividness - Cognition - Customer Satisfaction | 0.031 | 0.031 | 0.039 | 0.790 | 0.430 | Insignificant |
| Interactivity - Emotion - Customer Satisfaction | 0.048 | 0.051 | 0.035 | 1.357 | 0.175 | Insignificant |
| Interactivity-Cognitive-Customer Satisfaction | 0.065 | 0.066 | 0.046 | 1.405 | 0.161 | Insignificant |
| Emotion - Customer Satisfaction | 0.412 | 0.413 | 0.082 | 5.025 | 0.000 | Significant |
| Cognition - Customer Satisfaction | 0.423 | 0.415 | 0.090 | 4.713 | 0.000 | Significant |

Source: Data processed using *SmartPLS* 3.0 (2025

The hypothesis testing results reveal relationships among the variables in the research model. These relationships are further elaborated based on the results of testing each hypothesis.

a) Emotion mediates the positive effect of Aesthetics on Consumer Satisfaction
   Based on the results of hypothesis 1 test, which showed a P-value of 0.024 and a path coefficient of 0.123, the hypothesis is significant, meaning that Emotion mediates the

positive effect of Aesthetics on Consumer Satisfaction. Attractive brand aesthetics can evoke positive emotions, such as joy, interest, and admiration, when using the virtual try-on feature. These positive emotions can enhance consumer satisfaction because products that suit one's face boost self-confidence (Stockdale and Borovicka, 2006 (in Shalabi et al., 2024).

b) Cognition mediates the positive effect of aesthetics on consumer satisfaction
Based on the results of hypothesis 2 test, which showed a P-value of 0.002 and a path coefficient of 0.220, hypothesis 2 is significant, meaning that Cognition mediates the positive effect of Aesthetics on Consumer Satisfaction. These findings are consistent with the study conducted by Shalabi et al. (2024), which states that Aesthetics in VR experiences have a significant positive effect on customer satisfaction, mediated by utilitarian responses or Cognition. Brand aesthetics are related to consumers' perceptions and responses to a brand's appearance (Zeng et al., 2023). In the virtual try-on feature, the consumer experience is influenced not only by aesthetics but also by the cognitive process of understanding the information presented.

c) Emotions mediate the positive influence of vividness on consumer satisfaction
Based on the results of the hypothesis 3 test, which showed a p-value of 0.001 and a path coefficient of 0.161, Hypothesis 3 is significant, meaning that Emotion mediates the positive effect of Vividness on Consumer Satisfaction. According to Attri et al. (2024), vividness plays a crucial role in influencing how customers evaluate a product, both in terms of practical benefits (utilitarian) and emotional experiences (hedonic). Positive emotions arising from consumers' use of a virtual product trial feature with a high level of vividness will help increase their satisfaction with the use of that feature.

d) Cognition Does Not Mediate the Positive Effect of Vividness on Consumer Satisfaction
Based on the results of the test of Hypothesis 4, which showed a p-value of 0.430 and a path coefficient of 0.031, the result is not significant. This means that cognition does not mediate the positive effect of vividness on consumer satisfaction. If the cognitive process does not mediate the effect of vividness resulting from the virtual product trial feature, then it will not influence consumer satisfaction. The cognitive process plays a role in understanding and evaluating product information. In virtual try-ons, realistic visuals need to be accompanied by clear information so that consumers can engage cognitively and gain a better understanding. According to Keller and Block, 1997 (in Brannon Barhorst et al., 2021), product vividness in AR can influence consumers' cognitive processes.

e) Emotions Do Not Mediate the Positive Effect of Interactivity on Customer Satisfaction
Based on the results of the hypothesis 5 test, which showed a p-value of 0.175 and a path coefficient of 0.048, H5 is not significant, meaning that Emotion does not mediate the positive effect of Interactivity on consumer satisfaction. This implies that if Emotion does not mediate the effect of Interactivity resulting from the virtual product trial feature, it will not influence consumer satisfaction. In this study, most respondents purchased beauty products using the virtual product trial feature once every 3–6 months. This indicates that emotional involvement in purchasing is low because purchases involving the virtual product trial feature are not made frequently, so consumers do not experience satisfaction with the interactivity of that feature. Huang and Liao, 2015 (in Hsuan et al., 2021) state that highly interactive experiences when using virtual product trial features result in high levels of joy, thereby linking interactivity to the hedonic dimension of consumer behavior.

f) Cognition does not mediate the effect of interactivity on consumer satisfaction
Based on the results of the hypothesis 6 test, which showed a p-value of 0.161 and a path coefficient of 0.065, H6 is not significant, meaning that cognition does not mediate the effect of interactivity on consumer satisfaction. This implies that if the cognitive process does not mediate the effect of interactivity generated by the virtual product trial feature, it

will not influence consumer satisfaction. Virtual try-on features are intended to help consumers evaluate, compare, and select products based on clear information. However, without information regarding the product's advantages, ingredients, skin compatibility, or effects, consumers' cognitive engagement becomes less profound. According to Kim et al. (2021, in Attri et al., 2024), interactivity is influenced by the speed, mapping, and scope of interactions. If consumers feel they lack control over the virtual try-on, they will have difficulty adjusting and exploring features according to their needs and preferences.

g) Emotions have a positive effect on customer satisfaction
Based on the results of the hypothesis test for 7, which showed a p-value of 0.000 and a path coefficient of 0.412, H7 is significant, meaning that emotions positively affect consumer satisfaction. According to Rahimizhian et al., 2020 (as cited in Lin et al., 2024), when the perceived quality of a virtual product meets or exceeds consumer expectations, it typically results in high satisfaction, thereby triggering a positive emotional response. Positive emotions that can enhance consumer satisfaction can be triggered by a virtual product trial feature's ability to create a unique and memorable experience. Consumers will feel more emotionally connected when a virtual product trial feature for beauty products offers an experience different from ordinary shopping, such as allowing consumers to try products virtually in a more enjoyable way.

h) Cognition has a positive effect on consumer satisfaction
Based on the results of Hypothesis 8, which showed a p-value of 0.000 and a path coefficient of 0.423, H8 is significant, meaning that cognition has a positive effect on consumer satisfaction. According to Voicu et al., 2023 (as cited in Pratama et al., 2024), consumers who use virtual product trial apps while shopping for cosmetics online feel more satisfied with their experience. The better the cognitive process consumers experience leading them to feel that they understand, are confident, and are logical in evaluating beauty products the higher their level of satisfaction will be.

## 5. Conclusion

Based on the research findings outlined above, the conclusions of the study "The Effect of Virtual Product Trial Features on Consumer Satisfaction, with Emotions and Cognitive Processes as Mediating Variables: A Study of Beauty Brands in Indonesia" are as follows: Emotions mediate the positive effect of Aesthetics on Consumer Satisfaction; Cognition mediates the positive effect of Aesthetics on Consumer Satisfaction; emotions mediate the positive effect of vividness on consumer satisfaction; cognition does not mediate the effect of vividness on consumer satisfaction; emotions do not mediate the effect of interactivity on consumer satisfaction; cognition does not mediate the effect of interactivity on consumer satisfaction; emotions have a positive effect on consumer satisfaction; and cognition has a positive effect on consumer satisfaction.

Some recommendations from the researchers include: companies should pay closer attention to and improve the visual design of virtual product trial features to make them appear more realistic, polished, and appealing. For example, by enhancing image quality, lighting, and animations that evoke positive emotions. Companies can create features that allow consumers to view two or more products simultaneously, for example two different lipstick colors or two different types of foundation on a single screen. Companies can also include supplementary information in virtual product trials, such as product benefits, skin compatibility, and usage recommendations.

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