Chapter 14

Unrealistic Beauty Ideals: Artificial Intelligence and Consumers' Self-Image Perceptions

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Abstract

Digital transformation and the rapid enhancement of artificial intelligence (AI) technologies cause unprecedented changes in the marketing environment. As the technology evolved and AI tools were diversified, AI became more effective in facilitating consumers' lives and was adopted quickly by large masses. While this technology offers numerous opportunities, it also poses a serious threat to consumers' well-being by shaping society's beauty ideals. People judge others according to their appearance, and beautiful-looking people have a competitive advantage. Thus, beauty is perceived as important and highly demanded by consumers due to its influential power. Although beauty perceptions of consumers were culture-dependent and constantly changed throughout history, they have become similar nowadays, with the increase in communication and the effects of globalization.

The unrealistic and unattainable beauty ideals shaped and disseminated by AI may damage consumers' self-image perceptions, fill them up with insecurities, and eventually result in serious health and consumption-related problems. Therefore, this chapter aims to explain AI's role in shaping beauty ideals and AI's adverse effects on consumers' self-image perceptions and intends to contribute to the literature on the dark side of AI in consumers' beauty and self-image perceptions context. This study is descriptive in nature and is guided by the self-theory and social comparison theory. The present study also discusses AI's health-related and consumption-related effects and the mindful use of AI for consumer well-being and building an inclusive society.

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1. Introduction

Digitalization and the advent of artificial intelligence (AI) irreversibly changed how consumers live and perceive the world. This paradigm shift caused remarkable changes in consumer behavior and the marketing landscape. AI has gradually integrated into consumers' lives and finds a place in almost every sphere of life with social media, chatbots, voice assistants, recommendation systems, and Internet of Things (IoT) devices (Barari et al., 2024). As AI technologies evolved and were widely adopted by consumers, their role in enhancing customer experience (Grewal et al., 2023) was discovered by the companies, and more engaging AI technologies such as virtual reality (VR) try-on technologies and augmented reality (AR) face filters were introduced. As digital transformation and AI evolve, the technologies they incorporate offer numerous opportunities in the marketing environment for consumers, companies, and society. However, AI also has a dark side that leads to adverse, harmful, or unintended outcomes for the actors in the marketing environment.

One of AI's significant risks is its potential to negatively affect consumers' self-image perceptions by shaping beauty ideals. AI enables consumers to create and enhance visuals with a few clicks and companies to offer more personalized and engaging customer experiences (Ameen et al., 2021). The image editing tools for self-presentation in the digital world have been diversified and enhanced with the power of AI and quickly adopted by consumers who desire a perfect appearance. However, constant exposure to AI-generated flawless faces and perfect-looking bodies may promote hyper-idealized beauty standards and distort consumers' self-image perceptions by triggering social comparisons.

Desire for beauty and interest in beautiful people is a worldwide and transhistorical phenomenon. Therefore, consumers' desire for a perfect appearance and their effort to conform to society's beauty expectations is not new. Beauty ideals were culture-specific before globalization and the widespread use of web-based technologies. However, increased communication and worldwide adoption of communication technologies have removed the geographical and cultural barriers, and consumers' perceptions of beauty have become similar. Consumers' beauty perceptions are experiential and influenced by the environment (Dimitrov & Kroumpouzos, 2023). Recent reports demonstrated that adult internet users' average time spent online is 6 hours and 38 minutes each day, and they spend 2 hours and 21 minutes of this time only on social media (We Are Social & Meltwater, 2025). Thus, consumers are exposed to beauty content daily on the internet

and social media for a considerable amount of time, which is more than enough to shape and change their perceptions of beauty. Related literature demonstrates that consumers' exposure to appearance-oriented content is damaging (Yan & Bissell, 2014) and may cause negative health-related and consumption-related consequences.

AI poses a serious threat to the well-being of consumers by generating and enhancing idealized beauty visuals that may fill consumers up with insecurities. Although consumers' beauty and self-image perceptions in the social media context attracted considerable scholarly attention (e.g., Ando et al., 2021; Fioravanti et al., 2022; Laughter et al., 2023; Xie, 2024), research investigating AI's effect on consumers' self-image perceptions is limited. However, the influence of emerging technologies on consumers' beauty perceptions is a prominent research theme in health sciences and marketing (Singer & Papadopoulos, 2024). Therefore, AI's role in shaping beauty ideals deserves more attention in today's digital landscape.

This chapter aims to explain AI's role in shaping beauty ideals and its adverse effects on consumers' self-image perceptions in light of self-theory, social comparison theory, and previous study findings. In addition, the present study also discusses AI's health-related and consumption-related effects and the mindful use of AI for consumer well-being and building an inclusive society.

2. The Evolution of Beauty Ideals in the Digital Age

Beauty is a complex concept. Due to its subjective nature, no commonly accepted definition exists and is still discussed from philosophical, historical, biological, and social perspectives (Wong et al., 2021). Some scholars argue that it is easier to feel and recognize rather than to describe or define it (Alam & Dover, 2001; Dayan, 2011). Although no clear definition of beauty exists, its effects on our lives are undeniable. People tend to judge others according to their appearance. This phenomenon is known as beauty bias, an attributional bias that indicates positive perceptions toward attractive people rather than unattractive ones (Struckman-Johnson & Struckman-Johnson, 1994). Consumers' beauty perceptions not only affect mate selection but also social interactions and self-esteem (Singer & Papadopoulos, 2024). Beautiful people face fewer difficulties in life compared to ordinary people. For example, they are treated better, employed with higher salaries, and get even less severe punishments than unattractive people, even if they are in the same position or have similar qualifications (Frederick et al., 2015). Therefore, it is unsurprising that consumers try to achieve better looks and conform to society's beauty perceptions and expectations.

According to Georgievskaya et al. (2025), beauty is the combination of attributes that make a person subjectively perceived as aesthetically appealing in a given cultural environment. However, beauty standards have constantly changed throughout history. Early Greeks defined aesthetic perfection with numeric symmetries and proportions (Alam & Dover, 2001). Mayan culture linked beauty to food resources and tried to change their hair and facial structures to look like corn (Frederick et al., 2015). Some cultures valued body fat, while others valued thinness. While pale skin is considered an essential beauty standard in Asian culture, and therefore, consumers are heavily invested in skin-lightening products and medications (Dimitrov & Kroumpouzos, 2023), solarium, skin bronzers, and sun tanning products and services are quite popular and highly demanded in other cultures. Although there were specific differences in beauty perceptions in different cultures in history, global consumer culture has emerged with the irresistible effect of globalization (Cleveland & Laroche, 2007), and the differences in beauty perceptions have blurred. Global consumer culture creates global consumer segments that assign the same or similar meanings to certain things (such as beauty), and differences coming from culture become less important (Alden et al., 1999; Keillor et al., 2001). Therefore, traditional cultural beauty ideals have transformed into international norms through globalization. These beauty standards in mass culture promoted flawless skin, symmetrical faces, slim bodies, youthfulness, and Western looks (Georgievskaya et al., 2025; Grech et al., 2024).

Alongside globalization and global consumer culture, digital technologies have also altered how we perceive the world. Media plays a significant role in this process and acts as a tool for the dissemination of certain beauty ideals throughout the world (Yan & Bissell, 2014). Before the rise of the internet, traditional media forms were dominantly shaping consumers' beauty ideals with celebrities in advertisements, movies, and TV series. The thin ideal was promoted at that time, and below-average weighted female bodies were portrayed in traditional media (Lewallen & Behm-Morawitz, 2016).

After the widespread use of the internet and the popularization of social media, consumers become content creators and producers of images of their own lives. Until the twentieth century, beauty was considered a distinctive characteristic of a closed, prosperous elite beyond ordinary people's reach. However, consumers now have unlimited access to endless ideas to develop tastes, opportunities to be beautiful, and building communities to demonstrate their perceptions of beauty (Kuipers, 2022). This shift caused social democratization, and beauty was also democratized. Body positivity and naturalism have gained momentum, and consumers even criticize brands

for using unrealistically perfect-looking models in their advertisements. Leading fashion and personal care brands realized this movement and went one step forward by promoting natural women in their advertisements and launching natural beauty campaigns (Mabry-Flynn & Champlin, 2018). Then, natural beauty trends went viral on social media, and something went wrong. For example, "no-makeup makeup" and "clean girl" trends took social media by storm. These trends seem like minimalist beauty trends, which are effortless and easy to reach for everyone at first glance. However, consumers who follow these trends need to spend remarkable amounts of money on expensive new clothes, cosmetic products, decorative objects, etc. Besides, following these beauty trends demands too much time, which is also not even possible for the majority of working women. As we know, trends come and go; they are only popular for a finite period. Although trends are subject to change, social media's effect on consumers' beauty perceptions stays the same. Thus, even though social media has a prominent role in democratizing beauty, it remains a powerful source of appearance pressure and perpetuates certain beauty ideals simultaneously (Bell et al., 2022).

Digitalization, internet adoption, and social media use have revolutionized consumers' perception and presentation of beauty. When AI was introduced and gained popularity, consumers increasingly integrated it into their daily lives, especially to make their lives easier. Companies also started to use AI when they realized its essential role in shaping customer experience (Ameen et al., 2021). However, despite numerous advantages, AI poses significant risks for shaping consumers' perceptions of beauty and promoting unrealistic beauty ideals, worse than ever in history.

3. AI's Role in Shaping Beauty Ideals

AI's role in shaping beauty ideals can be viewed from three angles: consumer - AI interactions, AI in company-consumer interactions, and algorithmic bias in AI. Consumers and companies may integrate AI into their digital activities with different motives, yet they both contribute to creating and disseminating certain beauty ideals shaped by AI.

Consumer - AI interactions

Social media connected consumers all over the world. Consumers willingly engage in social media and generate content with rational and emotional motives of knowledge-sharing, advocacy, social connection, and self-expression (Krishnamurthy & Dou, 2008). In visual user-generated content, aesthetic concerns arise, and consumers want to leave a good impression on their social connections (Ayar et al., 2025). Consumers' desire

to look attractive led them to use image editing tools to beautify their virtual appearance. They used Photoshop at first, but as technology evolved, the tools for altering images became more complex and powerful. Face filters and VR apps have come into play. Identifying altered images with Photoshop was not difficult for trained eyes; however, when AI was involved, it almost became impossible to distinguish whether the content was authentic, AI-touched, or AI-generated by the naked eye (Hashemi et al., 2024).

Consumers may use AI to generate and enhance visual content on social media. AR face filters and VR beauty applications are AI technologies that enable consumers to change their appearance in videos and photographs. These AI-based technologies can be used for makeup, hair color change, face and body touch-ups, beautification such as skin smoothing, skin tone correction, eye and teeth whitening, slimming waist, enlarging breasts, filling lips, etc. Large masses have quickly adopted the aforementioned AI-based technologies, and consumers were increasingly bombarded with more idealized and unrealistic images in social media. Although beauty and body image-related digital activities such as image editing tools enable consumers to alter their faces with just a few clicks, to conform to beauty ideals of society with minimum effort (Castillo-Hermosilla et al., 2023), to generate content for perfectionist self-presentation, constant exposure to this kind of beauty content on social media may trigger consumers' social comparisons and appearance concerns (Boursier et al., 2020). In addition, constant exposure to visual contents containing altered images with AI blurred consumers' perceptions of what is normal, good enough, or perfect (MacCallum & Widdows, 2018). As consumers get used to these images, what was exceptional and outstanding is perceived as normal, and what used to be normal is now perceived as substandard (Kuipers, 2022).

Beauty filters negatively affect consumers' well-being. Prior to the widespread use of AI-face filters, consumers desired to have an appearance like celebrities. However, there is a shift in the desire for an ideal look from celebrities to one's filtered self (Castillo-Hermosilla et al., 2023). Consumers are now dreaming of resembling and looking like their filtered appearance. This phenomenon was defined and conceptualized as Snapchat Dysmorphia, which causes consumers to lose perspectives on their actual appearance and poses significant risks to consumers' mental health (Ramphul & Mejias, 2018; Abbas & Dodeen, 2022). Figure 1 demonstrates how far AI retouching apps can change a person's appearance.

Figure 1: Real/AI-filtered face comparison

Source: Dove (2021)

AI in company-consumer interactions

Companies may also use AI-generated content in digital marketing communications due to its high potential to attract consumers' interest and cost-effectiveness. However, using AI-generated flawless faces and perfect-looking bodies in brand communications may promote hyper-idealized beauty standards. Companies that aim to enhance customer experience adopted and offered VR try-on technologies, VR beauty applications, virtual models and influencers, AR mirrors, and AR live streaming technologies. VR try-on technologies help consumers to visualize products in a real-world setting. It enables consumers to try makeup (see Figure 2), contact lenses, nail polish, jewelry, and clothes-like products virtually before purchasing. This technology even lets consumers visualize how their appearance will change after undergoing specific plastic surgery with the AI plastic surgery simulator. Although virtual try-on technologies improve customer engagement and shopping satisfaction (Ajiga et al., 2024), they may also negatively affect their perceptions of self-image.

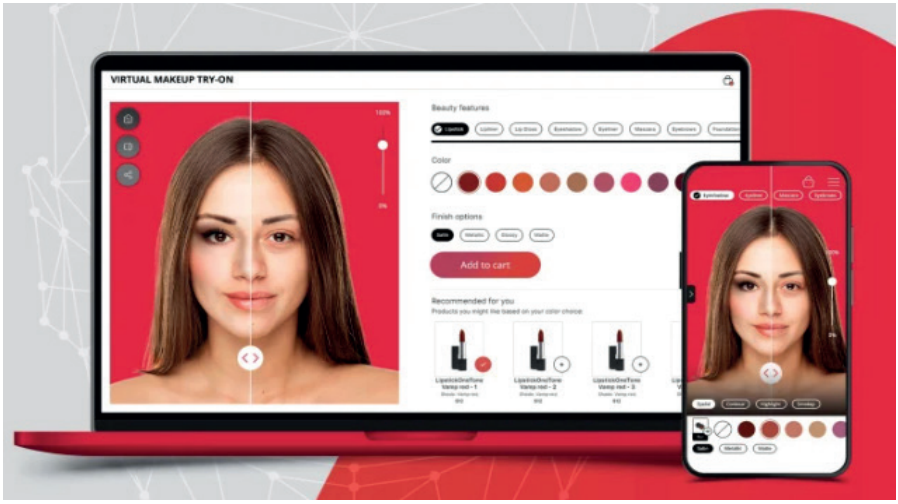

Figure 2: Virtual makeup try-on technology

Source: Androic (2023)

Another AI-enabled technology is virtual models and influencers. Companies may want to employ virtual models and influencers to represent broader consumer segments at lower costs. For example, Levi Strauss & Co (2023) announced their partnership with Lalaland.ai. This company specializes in creating customized AI-generated hyper-realistic models of every body type, size, age and skin tone. One of these AI-generated virtual models can be seen in Figure 3 as an example.

Figure 3: An AI-generated virtual model (Levi Strauss & Co. / Lalaland.ai)

Source: Levi Strauss & Co (2023)

Prada is another company that uses virtual models in digital marketing communications such as Rethink Reality: Prada Candy (Prada, 2021). Prada employed Candy (see Figure 4), an AI-generated virtual model, as an ambassador of their "Prada Candy" fragrance. The previous ambassador of this fragrance was a real human being, a French actress, Léa Seydoux, in 2011. As time passed, the fragrance and its target consumer group (young women) stayed the same. However, the majority of young women are tech-savvy Gen Z nowadays. Thus, Prada decided to change the ambassador with a virtual model and successfully reached its target consumers (Pesonen, 2022).

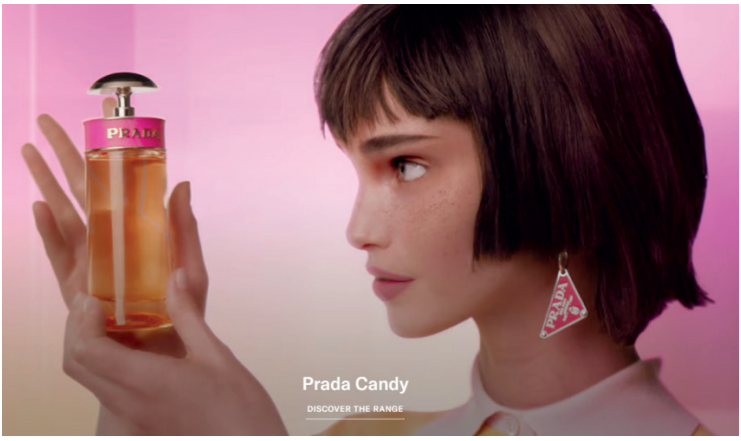

Figure 4: An AI-generated virtual model (Rethink Reality: Prada Candy)

Source: Prada (2021)

LG also uses AI-based technologies. The company has its own virtual influencer named Reah Keem, LG was first introduced her to the public in 2021 (LG, 2021). Reah identified herself as the first virtual artist in Korea and made even her debut as a singer in 2022 (LG, 2022).

Figure 5: A virtual influencer (Reah Keem, LG)

Source: LG (2022)

Although using AI-generated virtual models and influencers has numerous advantages for companies, such as enhanced customer experience, better representation of some consumer groups, cost-effectiveness, and attracting the attention of especially young consumers, its adverse effects should also be considered. Even though AI models and influencers are not real humans, it is nearly impossible to differentiate from real people, especially hyper realistic AI models (see Figure 3). Young consumers find AI models and influencers more relatable (Pesonen, 2022), which means they will compare themselves with these models, and this comparison may fill them up with insecurities, and distort their self-image perceptions. Because real humans cannot have the perfect look that virtual models and influencers always have.

AI-based technologies are not limited to VR try-on technologies, VR beauty applications, virtual models and influencers, AR mirrors, and AR live streaming. Some companies even use AI skin analysis to offer personalized cosmetic and skincare recommendations tailored to the individual skin concerns of consumers. AI skin analysis includes image processing algorithms and deep learning models that use previously collected consumer data for training. Algorithm bias-related issues raise concerns about the underrepresentation of specific consumer groups and marginalize their skin conditions, appearance, and ethnicity-specific differences (Grech et al., 2024). This kind of AI-based technology also promotes skin-related beauty trends in social media, such as "glass skin," which is actually a term used to describe glass-like smooth, flawless, clear, poreless, and shiny skin.

Glass skin is hard to achieve beauty ideal that also demands a considerable amount of time and money. Consumers trying to achieve and maintain this look must invest in a vast amount of skincare products and follow specific skincare routines, which takes a lot of time every day. Another risk of this kind of skin-related beauty trend is promoting a youthful appearance among consumers. Unrealistic expectations regarding youthful appearances may distort consumers' aging-related perceptions and prevent embracing the natural beauty of women of all ages.

Algorithmic bias in AI

Algorithmic bias in AI is also a significant factor in shaping beauty ideals. AI biases related to beauty may arise from algorithmic design, inadequate training, or biased datasets (Grech et al., 2024). Algorithmic bias occurs when an algorithm produces outputs that benefit or disadvantage certain individuals or a group of consumers without justified reasoning (Kordzadeh & Ghasemaghaei, 2022). Although recommendation systems are essential tools for enhancing customer experience in a digital environment (Shokeen & Rana, 2020), AI algorithms may reinforce social biases that already exist in society (O'neil, 2016). AI algorithms learn from data. If the data used in learning an algorithm was lacking cultural diversity, the algorithm cannot generate suggestions including all aspects of different cultures. This may result in the marginalization of diverse beauty representations and reinforce harmful stereotypes. In addition, the algorithm also learns from consumers' behavior (Sethi & Gujral, 2022). For example, recommendation systems in social media generate content offers according to consumers' user profile based on their browsing behavior. If the learning data of the algorithm does not include people who have no hair, then content offers generated by this algorithm do not include images of hairless people.

AI algorithms are engagement-focused and designed to attract consumers' interest. Therefore, when the algorithm is fed by similar visuals, it becomes to recommend similar visual content over time. Then, overspecialization may occur, and consumers become constantly exposed to similar content that lacks diversity (Lashkari & Sharma, 2023). Accordingly, algorithmic bias in AI may disseminate certain beauty trends and cause the idealization of certain face and body characteristics. For example, if a consumer is interested in makeup videos and visuals, the social media algorithm will constantly generate makeup-related content suggestions. When the consumer keeps engaging in suggested content, suggestions will become more particular as a specific makeup trend over time. Another example is when the AI algorithm is learned from the user profile as the consumer likes to see the content

include people who have beautified and rejuvenated faces with aesthetic surgery, then all the suggested content will include people who underwent similar aesthetic surgeries and have similar face and body characteristics. As exposure to those contents gets higher, consumers' perceptions of what is normal, good enough, or perfect may become blurred (MacCallum & Widdows, 2018), and consumers may perceive these beauty ideals as attainable and normal, and feel obliged to follow these aesthetic trends to conform society's beauty ideals.

4. AI's Effects on Consumers' Self-Image Perceptions

AI offers numerous advantages for companies and consumers; however, using AI-based technologies and constant exposure to AI-generated content, especially appearance-oriented content, may distort consumers' perceptions of self-image. Although the present study is not an empirical study relying on its very own data, this paper analyzes and discusses the AI's effects on consumers' self-image perceptions in light of the self-theory, social comparison theory, and the previous study findings. Therefore, this section provides theoretical underpinnings of AI's effects on consumers' self-image perceptions. In this vein, self-theory and social comparison theory are defined and discussed in detail.

4.1. Self-Theory

Self-theory is a personality theory mainly focusing on the real self and ideal self (Rogers, 1959). According to theory, self is people's perceptions related to their own characteristics, their perceptions of the relationships with other people and life, and values attached to all these perceptions. The ideal self is a self-concept to which a person attaches the highest value and wants to achieve. Self-concept is a multi-dimensional concept in nature that has various facets. The *real self*, defined as the actual or objective self, indicates who the person really is; *self-image*, as the subjective self, refers to how the person perceives herself/himself; the *ideal self* is self-actualization, who the person would like to be; *social self*, defined as the way the person thinks others regard him/her (Onkvisit & Shaw, 1987). Therefore, we can define self-image as who consumers perceive themselves they are, and the ideal self as who consumers really want to be.

Self-theory is a widely used theory to explain consumer behavior in the marketing literature (e.g., Onkvisit & Shaw, 1987; Ekinci & Riley, 2003; Kressmann et al., 2006; He & Mukherjee, 2007). Marketing research focuses mostly on the actual self and ideal self, especially self-image congruence, which means the cognitive match between consumers' self-concepts (e.g.,

actual self and ideal self) (Hosany & Martin, 2012). Incongruence occurs if a discrepancy develops between the actual and ideal self. This state is associated with tension and internal confusion, resulting in neurotic behaviors (Rogers, 1959). Similarly, Higgins (1987) defines this concept as self-discrepancy, which occurs when consumers compare different self-states and find discrepancies between the two. According to him, three self-states exist: *actual self*, *ideal self*, and *ought self*. Ought self indicates the attributes a person thinks he/she is obliged to have. These self-concepts would be the person's own perspective or the perspectives of significant others (Vartanian, 2012).

According to self-discrepancy, six types of self-concepts could be experienced: actual/own, actual/other, ideal/own, ideal/other, ought/own, and ought/other (Higgins, 1987). These self-state representations are important due to their motivational significance. When this theory is applied to consumers' beauty and body image perceptions context, actual/own indicates consumers' own perceptions of their body, ideal/own refers to how consumers think their body would ideally like to be, ideal/own indicates consumers' internalization of society's beauty ideals. Consumers' discrepancy perceptions between these self-states may cause serious problems such as dissatisfaction, depression, anxiety, and guilt (Vartanian, 2012). According to MacCallum and Widdows (2018), if the discrepancy between the actual self and the ideal self occurs, consumers feel disappointment and sadness. In addition, the discrepancy between the actual self and the ought self leads to anxiety and guilt.

Appearance-oriented content may affect consumers' ideal self-perceptions and lead to appearance-changing behaviors such as eating disorders by causing actual-ideal discrepancy (Grogan, 2007). In addition, exposure to idealized beauty images may also heighten the discrepancy between the actual and the ought self and may cause restricted eating in public, to be perceived as a person who is trying to conform to society's appearance-related expectations (Hefner et al., 2014; MacCallum & Widdows, 2018). Consumers' food choices may also be affected. In order to give the impression to other people as someone trying to achieve a healthy, fit, and thin appearance, consumers may prefer lower calorie foods in the presence of others. In addition, perceived self-discrepancy between the actual and ideal appearance may cause serious health concerns such as disordered eating, depression, body surveillance, and body dysmorphic disorder (Castillo-Hermosilla et al., 2023).

4.2. Social Comparison Theory

Social comparison theory focuses on the idea that people evaluate their abilities and opinions according to outside images (Festinger, 1954). As the name suggests, social comparison theory indicates an inner drive of people to evaluate and understand themselves in comparison with similar others in a social environment. In today's digital age, this comparison is stronger than ever with the widespread use of social media platforms and the increasing use of AI. Prior to the advent and adoption of web-based technologies, consumers' social surroundings were limited to friends, colleagues, neighbors, and the people they met physically. However, when social media rises, consumers are suddenly exposed to people's lives, appearances, experiences, and thoughts, even from the distant corners of the world. Then, AI came into our lives, and social comparison extends to virtual humans who do not even exist.

Comparison motives of consumers include evaluation, improvement, and enhancement (Gibbons & Buunk, 1999). Social comparison theory helps us understand the motivations of consumers' self-evaluation and improvement and how these motivations shape consumer behavior (Caliskan et al., 2024). According to the theory, comparisons can be made in upward and downward directions (Wills, 1981). The upward comparison refers to consumers' comparison of themselves with superior others; however, the downward comparison indicates comparison with inferiors. AI-generated beauty images and beauty-related content cause upward comparison because these contents are entirely of perfect-looking images that promote and disseminate unrealistic and unattainable beauty ideals. Upward comparison of consumers may result in inadequacy, and envy (Caliskan et al., 2024), and body dissatisfaction when the comparison is made with idealized media images (Tiggemann & Polivy, 2010).

According to Wood (1996), social comparison does not have to be careful or even conscious thought. Comparisons can be made with an image, a person, or a group of people in relation to the self. Therefore, consumers may unconsciously make social comparisons when constantly exposed to AI beauty content on social media. People do not tend to compare themselves with others who have distinctively different abilities or opinions, according to Festinger (1954). When this theory is applied to body image perceptions and ideal beauty context, people do not usually compare themselves with supermodels because the difference is extremely divergent from their own. However, a friend using AI filters, a virtual influencer, or an AI-generated better version of himself/herself can be easily subjected to comparison.

Comparisons may also occur when the attractions of the compared groups are strong. Another reason for comparisons is consumers' desire to stay as a member of a specific group (Festinger, 1954). When considering the advantages of being a member of an attractive group and the adverse effects of not conforming to beauty ideals, comparison is almost inevitable, especially for young women (Yan & Bissell, 2014).

Social comparison research in consumers' beauty perception context demonstrates that women's self-image perceptions negatively change when they perceive the comparison target as extremely attractive (Birkeland et al., 2005; Brown et al., 1992). According to Yan and Bissell (2014), constant exposure to appearance-oriented content, such as extremely thin and unrealistically perfect-looking bodies, is even more destructive for young women. This kind of content may lower consumers' self-esteem and cause body image dissatisfaction, eating disorders, and depression (Harrison & Cantor, 1997; Lavine et al., 1999).

5. AI's Consumption-Related Effects

AI's adverse effects on consumers' self-image perceptions may cause serious health problems as discussed in the previous sections. In addition, AI's adverse effects on consumers' self-image perceptions may also have consumption-related effects. Social comparison theory suggests that consumers try to eliminate the perceived discrepancy when a difference between desired others and perceived self is recognized (Yan & Bissell, 2014). Mandel et al. (2017) introduced compensatory consumer behavior model to explain consumer behaviors in regulating self-discrepancies. The compensatory consumer behavior model suggests direct resolution, symbolic self-completion, dissociation, escapism, and fluid compensation as consumers' strategies for coping with self-discrepancies. In addition to these strategies, this model also suggests that consumption may reduce self-discrepancies.

AI-enhanced visuals include face and body touch-ups, such as face filters changing face features and putting desired makeup on consumers' faces. When consumers are exposed to these AI-enhanced visuals of others without any disclosure of AI use, they cannot define whether the visual is real or AI-enhanced. If AI-generated visuals are known to be artificial, consumers would no longer perceive the image as a comparison target. Therefore, awareness of digital enhancement is expected to cause less social comparisons and less body dissatisfaction (MacCallum & Widdows, 2018). Otherwise, consumers may perceive the content as real and feel insecure

about their appearance. In order to reduce this self-discrepancy, consumers' demand for cosmetics, skincare, and beauty products is increasing (Fardouly et al., 2015; Grech et al., 2024; Singer & Papadopoulos, 2024). To reach the desired appearance, consumers' demand for fitness foods, beauty and dietary supplements, and even aesthetic surgery heightens (Yan & Bissell, 2014; Nobile et al., 2023; Krywuczky & Kleijnen, 2024). Although increased demand for beauty products is favorable for the beauty industry, it has detrimental effects on consumers and society. It raises concerns about health issues related to excessive use of skincare or cosmetic products and appearance-related concerns due to the excessive demand for plastic surgery for similar esthetic procedures that transform people into look-alike masses.

6. Conclusion

AI has an undeniably significant role in shaping beauty ideals in today's digital age. Even though AI offers countless benefits, there is a dark side of AI that involves risks. AI's role in shaping beauty ideals can be threefold: consumer – AI interactions, AI in company-consumer interactions, and algorithmic bias in AI. AR face filters, VR beauty applications, VR try-on technologies, virtual models and influencers, AR mirrors, AR livestreaming technologies, AI skin analysis, and algorithmic bias constitute the tools, technologies, and characteristics of AI shaping, perpetuating, and disseminating beauty ideals.

Consumers' discrepancy between the actual self and the ideal self increases when they are constantly exposed to AI-generated beauty content. While these contents damage their self- image perceptions, they also promote almost perfect and unattainable beauty ideals. Even though social comparison theory suggests that when a comparison target is considered irrelevant to the present status, it will not affect the self (Strahan et al., 2006), consumers' perceived difference is not that high from the comparison target when AI is involved. Constant exposure to AI-generated or AI-enhanced visuals causes constant observation of numerous comparison targets, normalizes the perfect-looking bodies, and makes them seem attainable over time. In addition, AI itself also decreases perceived differences from the comparison target because the comparison target is not usually a supermodel; instead, a friend using AI filters, or even consumers' an AI-powered better version of themselves. Therefore, beauty content's adverse effects on consumers are more serious and dangerous than ever before.

The detrimental effects of AI-generated or AI-enhanced visual content on consumers are not limited to the distortion of self-image perceptions.

It also raises serious health and consumption-related concerns. Health-related effects include eating disorders, restricted eating in public, body dissatisfaction, body surveillance, body dysmorphic disorder, and depression. Besides, consumption-related effects include increasing demand for cosmetics, skincare, beauty products, fitness foods and products, beauty and dietary supplements, and even aesthetic surgery.

Even though serious risks are involved, AI is a widely used technology in almost every sphere of life, and we should find a way to minimize the risks while enjoying its advantages. Consumers and companies may integrate AI for their digital activities with different motives; however, considering its consequences is the responsibility of every actor in the marketing environment for the welfare of society. Although AI offers various tools and technologies to make life easier for everyone, responsible use and implementation are key for consumer protection and preventing possible harm. Transparency is also important. Consumers should know whether AI is used to generate or enhance visual content. Awareness of digital enhancement is expected to prevent consumers from unnecessary and irrelevant social comparisons to achieve unattainable and unrealistic beauty ideals. In addition, diversity in beauty should be protected and encouraged for a more inclusive society. Broadening our perspectives of beauty by embracing the beauty of all ages, all body shapes, all skin types, and colors would help to build a more empathetic world.

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