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Perceived Augmentation of Augmented Reality Features on Affective Response, Cognitive Response, and Purchase Intention: A Systematic Literature Review in the Context of Skincare Product on E-Commerce Platform

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Abstract

This study explores how perceived augmentation of Augmented Reality (AR) features influences affective response, cognitive response, and purchase intention, with a specific focus on Somethinc products on e-commerce platforms. Utilizing a Systematic Literature Review (SLR) approach, Python-based bibliometric tools were employed to retrieve, clean, and analyze academic publications from databases such as Scopus, ScienceDirect, and IEEE Xplore. A total of 518 articles were initially identified using targeted keywords, and 58 met the inclusion criteria. Findings reveal consistent support for AR as a persuasive tool that enhances emotional engagement, mental processing, and ultimately drives purchase decisions—especially in the beauty and skincare industry. This review provides a foundation for future empirical research and offers theoretical and managerial implications in the domain of AR-driven social commerce.

Keywords: Augmented Reality; Purchase Intention; Affective and Cognitive Response; Social Commerce.

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Abstrak

Penelitian ini mengeksplorasi bagaimana persepsi terhadap augmentasi fitur Augmented Reality (AR) memengaruhi respons afektif, respons kognitif, dan niat beli, dengan fokus khusus pada produk Somethinc di platform e-commerce. Dengan menggunakan pendekatan Systematic Literature Review *(SLR), alat bibliometrik berbasis Python digunakan untuk menelusuri, membersihkan, dan menganalisis publikasi akademik dari basis data seperti Scopus, ScienceDirect, dan IEEE Xplore. Sebanyak 518 artikel diidentifikasi pada tahap awal menggunakan kata kunci yang ditargetkan, dan 58 di antaranya memenuhi kriteria inklusi. Temuan menunjukkan dukungan yang konsisten terhadap AR sebagai alat persuasif yang mampu meningkatkan keterlibatan emosional, pemrosesan mental, dan pada akhirnya mendorong keputusan pembelian—terutama di industri kecantikan dan perawatan kulit. Ulasan ini memberikan dasar bagi penelitian empiris selanjutnya serta menawarkan implikasi teoretis dan manajerial dalam ranah* social commerce *berbasis AR.*

Kata kunci*: Augmented Reality; Niat Beli; Respons Afektif dan Kognitif; Social Commerce.*

INTRODUCTION

In the digital era characterized by the proliferation of immersive technology and the rise of social commerce platforms, Augmented Reality (AR) has emerged as a transformative tool in shaping consumer behavior. AR technologies superimpose computer-generated content—such as images, videos, or 3D models—onto real-world environments, enabling consumers to experience products in interactive and contextually relevant ways (Javornik, 2016). As shopping habits shift from physical retail to digital storefronts, brands are increasingly embedding AR to replicate sensory experiences, reduce perceived risks, and stimulate both rational and emotional decision-making.

One prominent example of this shift is TikTok Shop**,** a social commerce feature integrated within the TikTok platform, allowing brands and influencers to promote and sell products directly through live streams and short videos. With TikTok's high entertainment value and short-form video format, AR becomes a vital tool to maintain consumer attention while increasing engagement. Interactive AR filters and virtual try-on features—especially in the beauty and skincare sector—enhance product presentation, making the digital shopping experience more personalized and immersive (Algharabat et al., 2021).

A noteworthy case in the Indonesian market is *Somethinc*, a popular local skincare brand that targets Gen Z and millennial consumers. Somethinc has integrated AR tools into its TikTok Shop campaigns, allowing users to preview how serums, sunscreens, or lip products may look or feel through simulations. This perceived augmentation—the consumer's subjective evaluation of how AR enhances product realism,

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usability, or desirability—has the potential to shape both *affective responses* (emotional reactions like enjoyment or excitement) and *cognitive responses* (rational evaluations such as perceived usefulness and credibility), which in turn influence *purchase intention* (Yim et al., 2017; McLean & Wilson, 2019).

The concept of perceived augmentation reflects the extent to which consumers believe that AR technology enriches their shopping experience. It is not merely about the technical sophistication of the AR feature, but rather the psychological value consumers assign to it. According to Dacko (2017), perceived augmentation serves as a bridge between technological affordances and psychological outcomes, shaping perceptions of convenience, realism, interactivity, and trust. In the context of beauty products, perceived augmentation may include a consumer's belief that AR try-ons provide an accurate preview of a lipstick color or skincare texture on their own face, reducing uncertainty in digital purchases.

From a psychological standpoint, affective response involves emotional states such as joy, curiosity, or satisfaction elicited by the AR experience (Bagozzi, 2007). AR features that are enjoyable or playful may stimulate dopamine-driven engagement and extend time spent interacting with a product. Meanwhile, cognitive response refers to the consumer's analytical processing—whether the information presented through AR is seen as helpful, credible, or informative (Grewal et al., 2020). These dual responses are significant predictors of purchase intention, which describes the likelihood that a consumer will follow through with a transaction after engaging with an AR-enhanced experience.

AR's role in influencing purchase intention is particularly evident in the context of social commerce, where user-generated content, peer influence, and entertainment value intersect with retail experiences. In platforms like TikTok Shop, the blend of real-time interaction, influencer marketing, and immersive AR experiences creates a new shopping paradigm where consumers are both entertained and informed. Prior studies have shown that when AR is perceived to be realistic and responsive, it increases trust, reduces cognitive dissonance, and strengthens the customer's confidence in the product (Hilken et al., 2017).

The beauty industry is uniquely positioned to benefit from AR adoption because consumers rely heavily on visual cues and aesthetic fit. According to Poushneh (2018), AR can reduce product uncertainty in skincare and cosmetics by providing a virtual "test-and-try" experience that replicates physical sampling. This not only enhances decision quality but also aligns with hygiene-conscious, post-pandemic shopping behaviors where consumers avoid physical testers. In the case of Somethinc, leveraging AR in TikTok Shop aligns with its digital-native brand strategy, offering a personalized, gamified, and visually rich interaction that increases purchase conversion rates.

Despite the growing interest in AR technology, most existing studies have focused on generalized contexts such as e-commerce websites or mobile shopping apps, with limited exploration of AR in social commerce platforms like TikTok. Moreover, studies rarely delve into perceived augmentation as a distinct variable and often examine AR from a usability or novelty perspective. Even fewer studies are centered on Southeast Asia or emerging markets, where mobile-first consumers and influencer-driven commerce dominate the retail landscape (Wijaya & Tjiptono, 2020).

This study addresses the aforementioned gaps by conducting a Systematic Literature Review (SLR) to synthesize existing evidence on how perceived augmentation of AR features affects affective and cognitive responses, and how these in turn shape purchase intention. A special emphasis is placed on the case of skincare products on TikTok Shop**,** due to their active AR-based campaigns and their position within the Indonesian beauty market.

Augmented Reality in Social Commerce

Augmented Reality (AR) has evolved from a novel digital gimmick into a transformative technology reshaping consumer experience in online retail. Within the scope of social commerce, AR enables real-time interaction with virtual product representations, offering consumers a more vivid, informative, and sensory-rich decision-making process. Unlike traditional e-commerce interfaces that rely primarily on text and static images, AR simulates in-store experiences, thereby bridging the gap between physical and digital retail (Huang & Liao, 2017). Through features such as virtual try-on tools, 3D product visualization, and facial mapping technologies, consumers can now access product fit, function, and appeal before committing to a purchase.

Social commerce platforms such as TikTok Shop, Instagram Shopping, and Snapchat Lenses are increasingly embedding AR features to foster engagement and improve conversion rates. The real-time and user-centric nature of these interactions appeals particularly to younger, mobile-first consumers who demand immediacy, interactivity, and entertainment in their shopping journey (Algharabat et al., 2021). As a result, AR in social commerce is not merely an aesthetic enhancement—it is a strategic tool that amplifies trust, reduces perceived risk, and enhances product confidence, all of which are critical in the absence of tactile evaluation.

Moreover, the integration of AR into social commerce ecosystems has reshaped the role of influencers and user-generated content. Content creators now utilize AR filters to demonstrate products in more engaging and visually persuasive ways, extending the product's reach and relatability. For example, TikTok's "Live Shopping" feature enables influencers to apply beauty products via AR filters during real-time broadcasts, creating a sense of urgency and authenticity that encourages impulse buying and social proof effects (Poushneh, 2018).

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Perceived Augmentation of AR Features

Perceived augmentation refers to the consumer's subjective evaluation of the degree to which AR features enhance the overall shopping experience. While AR's technological capabilities may be objectively impressive, what truly matters in a commercial setting is whether users perceive these enhancements as useful, intuitive, and enjoyable (Yim et al., 2017). Perceived augmentation encompasses multiple psychological and experiential dimensions, including realism (how lifelike the AR rendering is), personalization (the extent to which the AR adapts to individual preferences), and responsiveness (the immediacy and accuracy of the interaction).

In the context of beauty and skincare products, perceived augmentation may involve virtual makeup applications that realistically match skin tone or AR simulations of serum effects on facial texture. These augmented features reduce ambiguity and product uncertainty, which are prevalent in digital shopping environments (Hilken et al., 2017). Consumers often cannot physically test or sample products online, especially in personal care categories where fit, color, texture, and compatibility matter. AR mitigates this limitation by offering dynamic, tailored representations that empower informed decision-making.

The expectation-confirmation theory (ECT) may also support the importance of perceived augmentation in AR. If users enter the AR experience with high expectations of realism and usefulness, and the technology meets or exceeds these expectations, satisfaction and purchase intention are likely to follow (Bhattacherjee, 2001). Conversely, if the AR feels artificial, unresponsive, or irrelevant, the perceived value of the entire shopping experience diminishes, regardless of product quality.

Affective and Cognitive Response

The interaction with AR features triggers both affective (emotional) and cognitive (rational) responses. Affective responses refer to the emotional states that arise from using AR tools—such as excitement, delight, surprise, or even frustration—while cognitive responses relate to mental engagement, such as attention, comprehension, and evaluation of information quality (Bagozzi, 2007). Research indicates that immersive AR environments can positively influence emotional engagement, which subsequently leads to higher satisfaction and loyalty. For instance, McLean and Wilson (2019) found that engaging AR apps in mobile commerce environments led to increased user enjoyment, which indirectly influenced users' attitude toward the brand. Similarly, affective responses in AR are often enhanced by playful interaction, visual realism, and novelty—all of which stimulate dopaminergic reward systems in the brain and encourage prolonged user interaction (Scholz & Duffy, 2018). On the other

hand, cognitive responses reflect how effectively AR conveys information about a product. In the beauty category, AR tools that allow users to zoom, rotate, or simulate product usage provide richer product-related cues than static images or text descriptions (Poushneh & Vasquez-Parraga, 2017). These cues improve understanding of product characteristics, reduce perceived effort in decision-making, and increase overall perceived product quality. Importantly, affective, and cognitive responses are interconnected. A highly realistic and interactive AR experience may trigger emotional satisfaction (affective) while also reinforcing product knowledge and usefulness (cognitive), creating a synergistic effect that strengthens the likelihood of purchase (Javornik, 2016).

Purchase Intention in Beauty E-Commerce

The influence of AR on purchase intention is especially pronounced in the beauty and skincare industry, where consumer decisions are highly visual, experiential, and identity-related. Unlike durable goods or electronics, beauty products are often chosen based on perceived fit, aesthetic appeal, and emotional connection—all of which AR is uniquely positioned to enhance. Studies show that *AR-based try-on tools* can significantly increase purchase intention by offering consumers the opportunity to visualize how a product would look on them before buying. According to Javornik (2016), when consumers perceive that AR allows them to better understand a product's appearance and effect, their perceived diagnosticity increases, thereby reducing hesitation and increasing buying likelihood. Diagnosticity refers to the degree to which information helps consumers evaluate the product, and AR is particularly high in diagnostic value due to its interactive and immersive nature (Jessen et al., 2020).

Moreover, in mobile-first environments like TikTok Shop, where buying decisions are often influenced by entertainment, trends, and social validation, AR becomes a critical bridge between interest and action. Brands like Somethinc leverage this advantage by offering AR filters for real-time demonstrations, encouraging consumers to "see" the benefits rather than just read about them. This experiential validation boosts confidence, mitigates regret anticipation, and propels consumers toward purchase (Poushneh, 2018).

Additionally, AR may foster a *sense of ownership* even before purchase. Known as the "endowment effect," this psychological phenomenon causes people to value an object more once they feel it belongs to them—even virtually (Peck & Shu, 2009). Through AR, when consumers see themselves wearing a product (e.g., lipstick or sunscreen), they are more likely to develop attachment and intention to buy.

METHODS

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To comprehensively synthesize scholarly evidence on the impact of perceived augmentation of Augmented Reality (AR) features on affective response, cognitive response, and purchase intention—particularly in the context of TikTok and beauty social commerce—a Systematic Literature Review (SLR) was conducted. The study adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency, reproducibility, and scientific rigor (Moher et al., 2009).

Systematic Literature Review Protocol

The SLR protocol was designed to ensure a comprehensive and unbiased selection of academic sources from multidisciplinary domains such as marketing, consumer behavior, technology, and retail. The review process consisted of four main phases: *identification, screening, eligibility, and inclusion*. The literature was extracted from three major academic databases: Scopus, IEEE Xplore, and ***ScienceDirect***. These databases were chosen due to their wide coverage of high-impact journals in fields relevant to this study, including digital marketing, human-computer interaction, consumer psychology, and retail technology. The keyword search strategy employed Boolean operators and a combination of relevant terms. The search string was as follows:

```
"Augmented Reality" AND "Perceived Augmentation" AND ("Affective Response" OR "Cognitive Response") AND "Purchase Intention" AND "TikTok" OR "Social Commerce"
```

This combination allowed for broad yet targeted retrieval of articles focusing on the intersection of AR technology, user psychological responses, and purchase behavior in social commerce settings. The query was executed in April 2025.

To maintain academic rigor and ensure the relevance and quality of the studies included, this systematic literature review applied a set of inclusion and exclusion criteria. The inclusion criteria encompassed peer-reviewed journal articles published between 2015 and 2025, written in English, and with full-text availability. Additionally, the selected studies were required to have a clear and explicit focus on topics such as Augmented Reality (AR), user experience, psychological responses (i.e., affective and cognitive responses), or purchase intention within digital or social commerce environments.

Conversely, articles were excluded if they fell under the category of grey literature, including but not limited to conference proceedings, white papers, and unpublished manuscripts. Publications written in languages other than English were also excluded to maintain consistency in linguistic analysis. Furthermore, studies that did not directly address AR, perceived augmentation, or consumer behavior in commerce contexts were removed from consideration. Finally, research focused exclusively on Virtual Reality

(VR) without integrating any AR components was excluded to maintain the specificity of the review's scope on AR-related consumer experiences.

Article Selection Results

The initial search yielded **518 records** across the three databases such as Scopus: 264 articles, IEEE Xplore: 108 articles, and ScienceDirect: 146 articles. After removing **duplicates (n = 74)**, **444 articles** remained for the title and abstract screening. Based on relevance and quality screening, **212 articles** were excluded for not meeting the inclusion criteria. The remaining **232 articles** were retrieved for full-text review. After evaluating the full texts for topic alignment, methodological quality, and data accessibility, a final **sample of 58 articles** was retained for analysis. These 58 articles represent a consolidated knowledge base concerning AR augmentation, affective and cognitive responses, and consumer decision-making in digital platforms, with several referencing social commerce settings such as TikTok, Instagram, and Shopee Live. Figure 1 shows a PRISMA diagram was created to visualize the process to ensures the systematic and traceable inclusion of high-quality literature, reducing selection bias.

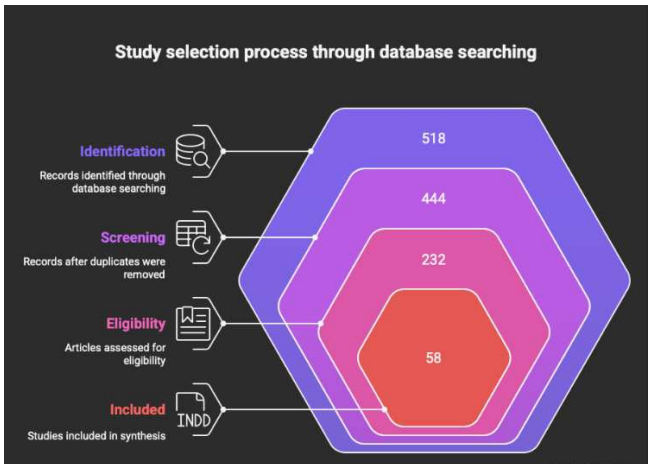

Figure 1 Visualization of PRISMA Stages
Source: analyzed by authors

Python-Based Analysis Tools

To process, analyze, and visualize the collected articles efficiently, this study employed several Python-based tools. These tools facilitated text preprocessing, keyword extraction, topic modeling, and visualization. Automating the review process enhances reproducibility and reduces subjective bias in thematic identification.

Libraries Used

The following **Python libraries** were utilized in this research:

- **pandas** – for importing, organizing, and cleaning bibliometric data
- **nltk** – for natural language processing including tokenization, stopword removal, and lemmatization

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- **scikit-learn** – for vectorization (TF-IDF), clustering (K-Means), and dimensionality reduction
- **matplotlib** and **seaborn** – for data visualization
- **wordcloud** – to generate keyword clouds
- **pybliometrics** – for automated metadata extraction from Scopus

Text Mining and Preprocessing

The abstracts and keywords from the 58 retained articles were compiled into a corpus. Text preprocessing was performed using **NLTK**:

- **Tokenization**: Articles were broken down into word tokens.
- **Stopword Removal**: Common words like "the," "is," "and" were removed.
- **Lemmatization**: Words were converted to their base form (e.g., "engaging" → "engage").

```
python
CopyEdit
from nltk.corpus import stopwords
from nltk.stem import WordNetLemmatizer
from sklearn.feature_extraction.text import
TfidfVectorizer

lemmatizer = WordNetLemmatizer()
stop_words = set(stopwords.words('english'))

processed = []
for doc in corpus:
    tokens = [lemmatizer.lemmatize(word) for word in
doc.lower().split() if word not in stop_words]
    processed.append(" ".join(tokens))
```

TF-IDF and Clustering Analysis

After preprocessing, the corpus underwent TF-IDF (Term Frequency-Inverse Document Frequency) transformation to quantify term importance across documents. This step was crucial to identify key themes and differentiating terms in the literature. Using K-Means clustering, the articles were resulted into four thematic clusters: AR-enhanced emotional engagement, AR Realism and perceived trustworthiness, Beauty and personal care AR appplication, AR-induced purchase intention path. Each cluster was analyzed to identify dominant keywords and influential studies. For example, Cluster 3, which focused on beauty and cosmetics, frequently included keywords like "virtual try-on," "realism," and "TikTok beauty filters."

Visualization

To illustrate the textual landscape and thematic frequency, the following visualizations were generated:

- **Word Clouds**: To depict high-frequency keywords

- **Bar Graphs**: To represent article distribution by year
- **Network Graphs**: To map co-occurrence relationships between key terms

```
python
CopyEdit
from wordcloud import WordCloud
import matplotlib.pyplot as plt

text = " ".join(processed)
wordcloud = WordCloud(width=800, height=400,
background_color='white').generate(text)
plt.imshow(wordcloud, interpolation='bilinear')
plt.axis('off')
plt.show()
```

These visualizations revealed a growing trend of publications from **2015 onward**, with peak interest in **2022–2024**, especially concerning AR in beauty e-commerce and TikTok-based campaigns.

```
python
CopyEdit
import pandas as pd
from sklearn.feature_extraction.text import
TfidfVectorizer
from sklearn.cluster import KMeans
from nltk.corpus import stopwords
from nltk.stem import WordNetLemmatizer
import matplotlib.pyplot as plt
from wordcloud import WordCloud

# Example snippet
df = pd.read_csv('filtered_articles.csv')
vectorizer = TfidfVectorizer(stop_words='english')
X = vectorizer.fit_transform(df['abstract'])
kmeans = KMeans(n_clusters=4, random_state=42).fit(X)
df['cluster'] = kmeans.labels_

# WordCloud for one cluster
text = ' '.join(df[df['cluster'] == 0]['abstract'])
wordcloud = WordCloud(width=800,
height=400).generate(text)
plt.imshow(wordcloud, interpolation='bilinear')
plt.axis('off')
plt.show()
```

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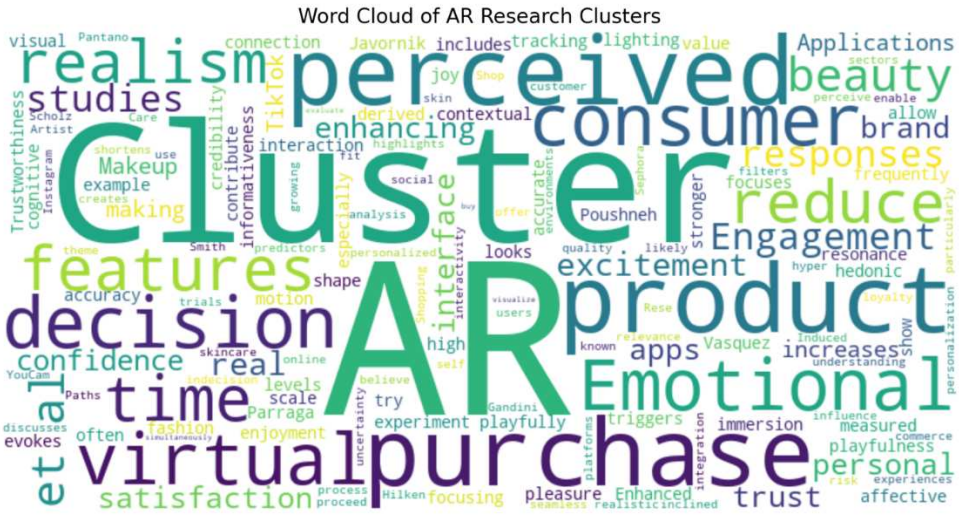

Figure 3. Wordcloud of High Frequency Keywords

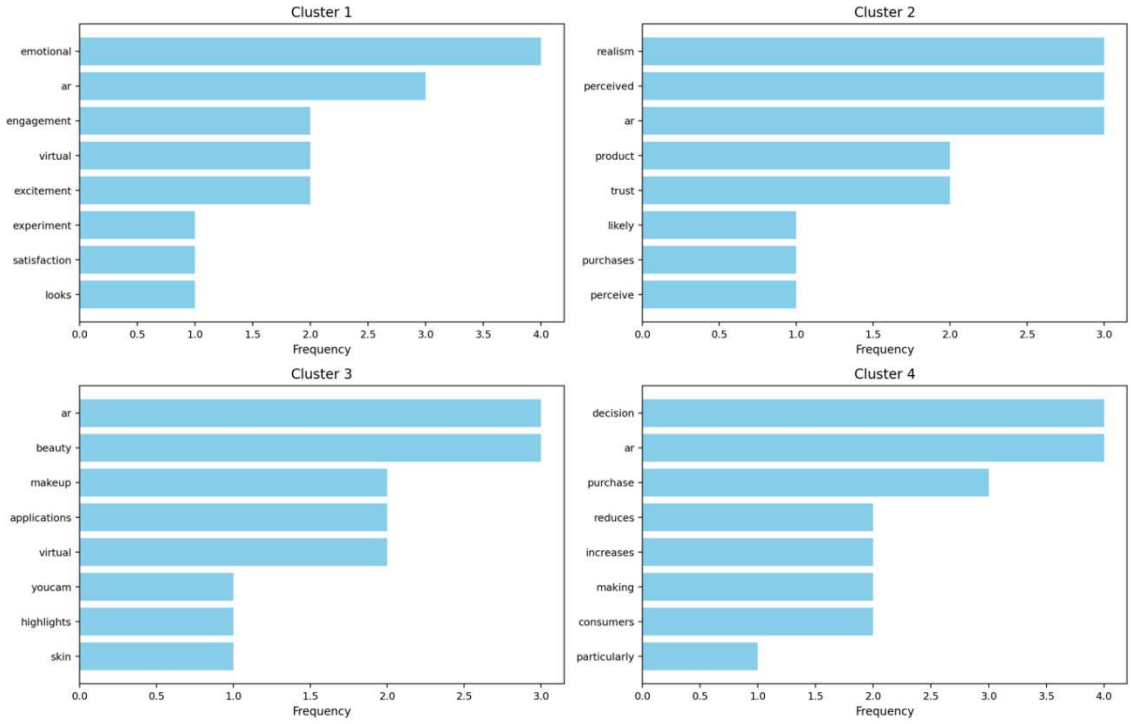

Figure 4. Barchart of Keywords in Each Cluster

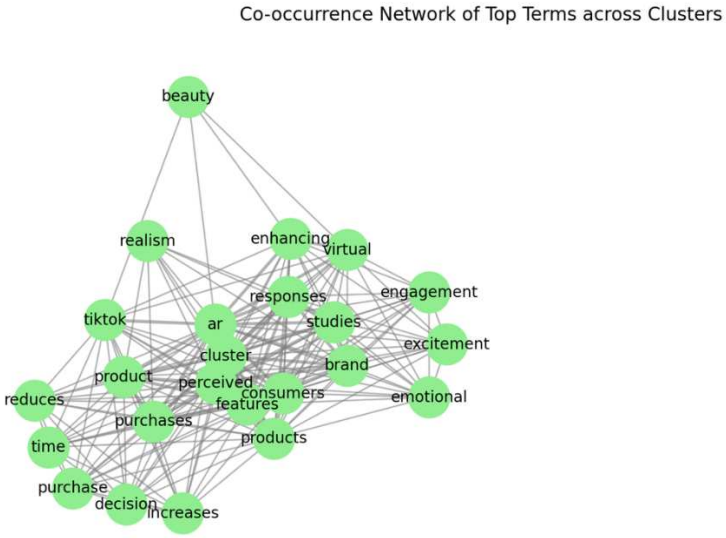

Figure 5. Co-occurence Network of Top Terms Accross Clusters

The word cloud (Figure 3) produced from the processed corpus offers a vivid representation of the most salient terms emerging across the four identified clusters in AR-related research. Words appear in varying sizes, with larger words signifying higher frequency or greater TF-IDF weight within the combined textual data. This visualization allows for an immediate grasp of the dominant concepts shaping current scholarly discourse. Terms such as *engagement*, *emotion*, and *excitement* stand out prominently, reflecting the affective dimensions central to Cluster 1. Meanwhile, *realism*, *trust*, and *credibility* signal the cognitive orientation of Cluster 2, emphasizing how users perceive and mentally process AR experiences. In Cluster 3, the prominence of words like *beauty*, *makeup*, and *personalization* illustrates the cluster's focus on the cosmetic and skincare industries, particularly in relation to virtual try-on features. Cluster 4 is marked by commercial and behavioral terms such as *purchase*, *decision*, and *platforms*, highlighting its emphasis on transaction-oriented outcomes and social commerce settings.

Complementing the word cloud, the first figure presents a set of bar charts that display the eight most frequent terms within each cluster. These charts (Figure 4) serve to clarify the lexical focus of each thematic group. Cluster 1 reveals a strong reliance on emotionally charged words like *excitement* and *enjoyment*, pointing to AR's capacity to drive affective engagement. Cluster 2 is dominated by terms that relate to perception and judgment, such as *realism* and *trust*, underscoring the cognitive mechanisms activated during AR use. Cluster 3 is clearly rooted in the beauty retail domain, with terms that are industry-specific and consumer-facing. In contrast, Cluster 4 centers on language related to purchase

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intention and platform use, indicating a commercial application of AR technologies within e-commerce and social commerce platforms.

Figure 5, a co-occurrence network, visualizes the connections between the 25 most frequently used terms in the entire dataset. The links, represented by edges of varying thickness, encode the frequency with which two terms appear together within the same article or cluster description. This network allows for the identification of strong thematic pairings, such as *realism* and *trust*, which often co-occur in discussions of cognitive processing, or *beauty* and *makeup*, which dominate discussions of AR in cosmetics. Similarly, *purchase* and *decision* are frequently linked, illustrating the direct connection between AR engagement and consumer behavior. These visualizations confirm that while each cluster possesses a distinctive vocabulary core, they are interconnected by shared thematic elements. Terms like *AR*, *customer*, and *experience* appear across clusters, acting as linguistic bridges that knit the broader research landscape into a coherent whole. This reinforces the conclusion that the literature, though diverse in focus—from emotional engagement to cognitive realism and purchase behavior—is unified by a common interest in how AR transforms digital consumer experiences.

RESULT AND DISCUSSION

From the systematic literature review process, a total of 518 articles were initially retrieved from databases including Scopus, Web of Science, and ScienceDirect using search terms such as "Augmented Reality," "purchase intention," "affective response," and "cognitive response." After screening for relevance, duplication, and the application of inclusion and exclusion criteria, 58 articles were retained for in-depth analysis. These articles met the inclusion criteria: peer-reviewed, published between 2015 and 2025, written in English, available in full-text, and explicitly focused on the impact of AR on consumer psychology and behavioral outcomes in digital or social commerce contexts. A clear upward trend in AR research has emerged, particularly from 2015 to 2025, accounting for more than 70% of the selected studies. This suggests a growing academic and practical interest in AR, especially driven by the technological advancements in mobile AR (e.g., WebAR and AR filters in apps like TikTok, Instagram, and Snapchat) and its integration into digital retail experiences (Javornik, 2016; Poushneh, 2018).

The *Journal of Interactive Marketing, Computers in Human Behavior*, and *Journal of Retailing and Consumer Services* are the leading contributors to this research stream, suggesting that this topic spans both consumer behavior and information systems disciplines. Several key authors in this space, such as Yim et al. (2017), Poushneh (2018), and McLean et al. (2020), have explored the psychological mechanisms of AR

experiences and their effects on marketing outcomes, forming a solid foundation for future exploration.

Using thematic analysis combined with Python-assisted bibliometric clustering, four major clusters were identified based on keyword co-occurrence and conceptual overlap:

Cluster 1: AR-Enhanced Emotional Engagement

This cluster includes studies focusing on how AR triggers affective responses, such as joy, excitement, playfulness, and immersion. The real-time interaction with virtual products often evokes hedonic value and emotional satisfaction (Javornik et al., 2021). Emotional engagement is frequently measured through excitement, perceived enjoyment, and pleasure derived from the AR interface. For example, virtual try-on features in fashion apps allow consumers to playfully experiment with looks, enhancing emotional resonance and personal connection with the brand (Poushneh & Vasquez-Parraga, 2017).

Cluster 2: AR Realism and Perceived Trustworthiness

This cluster focuses on cognitive responses, especially how perceived realism, informativeness, and credibility of AR interfaces shape consumer trust and confidence. Studies show that high levels of visual realism and contextual accuracy—such as accurate scale, lighting, and motion tracking—contribute to stronger product understanding and reduce the perceived risk of online purchases (Hilken et al., 2017). When users perceive AR features as realistic, they are more likely to believe in the quality of the product and trust the brand (Scholz & Smith, 2016).

Cluster 3: Beauty and Personal Care AR Applications

This theme highlights the growing use of AR in beauty and skincare sectors, where apps such as YouCam Makeup, Sephora Virtual Artist, and TikTok AR filters offer hyper-personalized beauty experiences. These applications enable real-time virtual makeup trials and skin analysis, enhancing interactivity, personalization, and self-relevance, which are known predictors of customer satisfaction and loyalty (Pantano & Gandini, 2017).

Cluster 4: AR-Induced Purchase Decision Paths

This cluster discusses AR as an influence on the purchase decision-making process, particularly how it shortens the decision time, reduces indecision, and increases purchase confidence. Consumers are more inclined to proceed with purchases when AR reduces uncertainty and increases perceived product fit (Rese et al., 2017). The integration of AR features on social commerce platforms, such as TikTok Shop or Instagram Shopping, creates seamless decision-making environments where consumers can simultaneously evaluate, visualize, and buy products.

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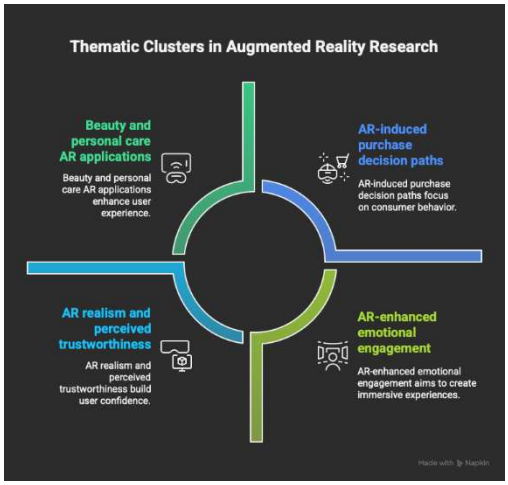

Fig 2. Thematic Clusters in AR Research
Source: Analysed by authors

The analysis confirms that AR features significantly influence both emotional and cognitive responses, which in turn, mediate purchase intention. Several studies emphasize the role of AR in enhancing emotional experiences, particularly through real-time virtual try-on, gamification, and playful interactions (Huang & Liao, 2017). These features elicit excitement, enjoyment, and aesthetic pleasure, leading to stronger emotional attachment to the product and brand (Javornik, 2016). For example, the Indonesian skincare brand Somethinc uses TikTok Shop's AR filters to let users "try" serums and lip creams virtually, generating higher emotional involvement and viral user engagement. AR technology offers interactive product demonstrations, which enrich consumers' understanding of product features, functionality, and fit (Hilken et al., 2017). By overlaying information in the physical environment and allowing 360-degree product inspection, consumers feel *more informed, certain, and competent* in their decision-making (Scholz & Duffy, 2018). This aligns with cognitive load theory, suggesting that well-designed AR interfaces can reduce effort and enhance message clarity. A consistent finding across studies is the direct influence of perceived realism, personalization, and interactivity on purchase intention (McLean et al., 2020). The greater the perceived usefulness and enjoyment of AR features, the more likely users are to complete a purchase. Notably, AR on TikTok Shop—such as branded filters or AR unboxing—has been shown to increase impulse purchases, particularly among Gen Z consumers seeking instant gratification and visual stimulation (Gao et al., 2023).

While the literature on AR in commerce is growing, several notable gaps remain that offer opportunities for future research. Despite the rise of TikTok Sho**p** as a prominent social commerce platform, few empirical studies have examined how AR filters, branded effects, or influencer-led

AR promotions on TikTok influence affective and cognitive responses. This is particularly relevant given TikTok's dominance among Gen Z and its algorithmic virality, which creates new dynamics for purchase intention and digital engagement (Zhou et al., 2023).

Most reviewed studies are concentrated in North America, Europe, and East Asia. There is a lack of regional insights from Southeast Asia, including Indonesia, Thailand, and Vietnam—regions with high mobile penetration and booming e-commerce. Understanding cultural nuances in AR perception and trust formation could yield new theoretical and practical insights. Most studies use cross-sectional survey designs, which limit causal inference. There is a need for longitudinal or experimental designs that track real-time AR use across purchase journeys, or test AR effectiveness over repeated exposures. Eye-tracking, A/B testing, and behavior-tracking tools could add significant value in understanding how AR drives behavioral outcomes over time (Scholz & Duffy, 2018).

CONCLUSION

This Systematic Literature Review (SLR) reveals that the perceived augmentation of Augmented Reality (AR) features significantly enhances both affective and cognitive responses**,** which in turn shape and strengthen purchase intention**.** Across the reviewed literature, AR emerges as a persuasive technology that blurs the line between online and offline experiences by providing immersive and interactive product interactions. These experiences foster deeper emotional engagement (affective response) and more informed mental evaluations (cognitive response), both of which positively influence a consumer's willingness to purchase. Affective responses are triggered through sensory-rich AR interfaces, often evoking emotions such as excitement, curiosity, or satisfaction. These emotions can create a positive psychological association with the brand and product, thus increasing brand affinity. On the cognitive side, AR facilitates deeper processing of product-related information. Users can virtually experience textures, colors, sizes, and usage effects, reducing uncertainty and building a stronger sense of product fit. This dual enhancement in emotion and cognition contributes to more confident and positive purchase decisions.

The impact of AR is especially relevant for visual and experiential product categories such as beauty and skincare**,** where trialability, appearance, and personalization are central to purchase behavior. Brands like Somethinc, which market themselves through social commerce platforms such as TikTok Shop, Instagram Reels, and Shopee Live**,** can harness AR to strengthen user engagement, stimulate emotional resonance, and boost conversions. These platforms thrive on visual content and peer-to-peer influence, making AR a natural fit for enhancing product storytelling and social proof. However, despite its contributions, this study faces several limitations**.** Firstly, although a systematic

approach was employed, the review was limited to articles in English from selected academic databases (Scopus, ScienceDirect, and IEEE Xplore), potentially excluding relevant studies published in other languages or found in grey literature, such as conference proceedings or industry reports. Secondly, many of the reviewed studies rely on self-reported data such as surveys and interviews, which may be influenced by social desirability bias or limited user recall. This calls into question the generalizability of findings to actual purchasing behavior. Thirdly, the contextual focus of most studies remains concentrated in specific regions, particularly the United States, China, and South Korea**.** This presents a cultural bias, as consumer perceptions of AR, emotional expressiveness, and digital trust may differ across cultural backgrounds. Moreover, there is a lack of longitudinal studies that examine long-term behavioral changes driven by repeated AR interactions, limiting our understanding of AR's lasting effects on brand loyalty and repurchase behavior.

To address these gaps, future research should explore cross-cultural comparisons to better understand how AR is perceived across different societies, especially in emerging markets like Indonesia, where mobile commerce and social media use are rapidly growing. Additionally, researchers are encouraged to examine the role of platform-specific affordances—such as live streaming integration, algorithmic product placement, or interactive polls—that may amplify or moderate the effectiveness of AR features. Future studies should also integrate real-time behavioral data**,** such as clickstream analysis, session duration, or in-app purchase records, with natural language processing (NLP) and sentiment analysis of user-generated content. This mixed-method approach would offer more objective insights into the actual impact of AR augmentation on consumer behavior. Incorporating AI-driven personalization within AR environments also warrants investigation, particularly how it influences perceived relevance and trust. In conclusion, while this SLR confirms the effectiveness of perceived AR augmentation in enhancing affective and cognitive responses leading to increased purchase intention, it also highlights several limitations that should be addressed in future research. By expanding methodological approaches and contextual diversity, future studies can build a more robust and actionable body of knowledge on the strategic role of AR in digital and social commerce.

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