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THE ROLE OF PERCEIVED VALUE IN MEDIATING THE EFFECT OF ATTITUDE TOWARD AR VTO ON REUSE INTENTION

(A Study on Cosmetic AR VTO Users in Denpasar City)

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ABSTRACT

The development of augmented reality virtual try-on (AR VTO) technology in the digital cosmetics industry presents both opportunities and challenges in encouraging the sustainable use of this technology by consumers. This study aims to examine the effect of attitude toward AR VTO on reuse intention, the effect of attitude toward AR VTO on perceived value, the effect of perceived value on reuse intention, and the mediating role of perceived value in the relationship between attitude toward AR VTO and reuse intention among cosmetic AR VTO users in Denpasar City. This research is grounded in the Theory of Reasoned Action (TRA) and employs a quantitative approach with data collection conducted through questionnaires distributed to 120 Generation Z respondents in Denpasar City who had previously used cosmetic AR VTO features. The data analysis method used was Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS 4.0 software. The findings indicate that attitude toward AR VTO has a positive and significant effect on reuse intention, attitude toward AR VTO has a positive and significant effect on perceived value, perceived value has a positive and significant effect on reuse intention, and perceived value partially mediates the relationship between attitude toward AR VTO and reuse intention. These findings extend the causal chain of the Theory of Reasoned Action into a belief–attitude–perceived value–intention framework, with rational indicators in attitude and functional value indicators in perceived value emerging as the dominant factors driving the reuse intention of cosmetic AR VTO in Denpasar City.

Keywords: attitude toward AR VTO, perceived value, reuse intention**.**

INTRODUCTION

Rapid technological development has brought significant changes to various aspects of life, including the landscape of global trade. The growth of the internet and the increasing penetration of smartphones have driven the emergence of the electronic commerce (e-commerce) era, fundamentally transforming the way consumers interact with products and services (Hubert et al., 2017). This transformation is characterized by a shift in shopping behavior from offline to online channels, driven by various advantages such as the convenience of shopping through digital devices, the ease of cashless payment access, and the flexibility of time and place in conducting transactions (Lim et al., 2016; Jiang et al., 2021).

The value of e-commerce transactions in Indonesia continues to show a significant upward trend and is projected to reach USD 200–300 billion by 2030 (CNBC Indonesia, 2025). The rapid growth of e-commerce in Indonesia cannot be separated

from the increasing internet usage among the population. The Indonesian Internet Service Providers Association reported that the percentage of internet users in Indonesia has consistently increased over the years, reaching 79.15 percent in 2024 (Indonesian Internet Service Providers Association, 2024). Bali Province also demonstrates a high level of internet penetration, with 73.34 percent of the population aged five years and above accessing the internet in 2023 (Statistics Indonesia of Bali Province, 2025).

In addition to regional factors such as internet access rates and high levels of digital literacy, demographic characteristics, particularly generational differences, also play an important role in shaping e-commerce usage patterns. Generation Z (born between 1997 and 2012) represents the group with the highest internet usage rate, accounting for 34.49 percent compared to other generations, and has already developed purchasing power as well as the ability to make independent purchasing decisions (Statistics Indonesia, 2024; Francis & Hoefel, 2018).

The cosmetics industry is one of the sectors experiencing the most significant digital transformation alongside the expansion of e-commerce. Globally, the cosmetics market is projected to reach USD 677.2 billion by 2025, with a growth rate of 3.37 percent. Nationally, the Indonesian cosmetics industry also demonstrates highly promising performance, with market potential estimated at USD 9.7 billion in 2025 and projected to continue growing through 2030 at an annual growth rate of 4.33 percent (Directorate General of Small and Medium Industries, 2025). This growth has also been driven by increasing cosmetic sales through digital platforms. The Coordinating Minister for Economic Affairs stated that personal care and cosmetic products have become one of the categories with the highest growth in Indonesia's e-commerce transactions, with sales reaching IDR 67.6 trillion or increasing by 16.95 percent annually (Voice of Indonesia, 2025). Data from e-Conomy SEA (2023) further support these findings by reporting that the beauty and personal care category contributed 12 percent of the total value of Indonesia's e-commerce transactions, making it one of the most consistently growing sectors within the national digital commerce ecosystem.

The growth of the cosmetics industry and the increase in online cosmetic transactions in Indonesia, as previously described, have not occurred evenly across all regions, but rather have been influenced by differing demographic and geographical characteristics, particularly consumption patterns in urban areas compared to rural areas. Urban areas have experienced a significant increase in cosmetic product consumption due to changes in lifestyle (Brenton Way, 2023). Population migration to urban areas has driven higher demand for cosmetic products that align with urban lifestyles, where consumers tend to seek practical, high-quality, and innovative products to accommodate their busy daily routines (Mordor Intelligence, 2024). This phenomenon indicates that the use of cosmetics in urban areas is no longer solely intended for aesthetic purposes but has become part of social etiquette and a necessity in social interactions, particularly within professional and social environments. This condition has become increasingly evident in the post-pandemic period, during which the makeup industry has experienced renewed growth alongside the return of social activities (Umbrex, 2025). As the center of government and economic activities with high mobility, Denpasar City reflects the characteristics of an urban area where people

engage in intensive work, social interaction, and public activities, thereby creating a greater need for cosmetic products to support appearance in various social and professional situations.

Although the growth of online cosmetic shopping demonstrates a positive trend, the characteristics of cosmetic products present unique challenges within the context of online shopping. Cosmetic products are highly personal and subjective in nature, leading consumers to generally require direct experience in assessing product suitability in terms of color, texture, and final appearance (Javornik, 2016; Hilken et al., 2017). In online shopping environments, consumers do not have the opportunity to physically try products, which may create uncertainty during the evaluation and purchasing decision-making process (Merle et al., 2012). This limitation has the potential to affect consumer confidence and increase the risk of product mismatch with expectations, which may ultimately reduce satisfaction and increase product return rates (Bonetti et al., 2018). Therefore, although online shopping offers convenience, the experience of purchasing cosmetics online still leaves a gap compared to offline shopping, particularly regarding consumers' inability to experience the sensory attributes of products prior to purchase (Beck & Crié, 2018).

In response to these challenges, the cosmetics industry has begun adopting augmented reality (AR) technology as an innovative solution to bridge offline and online shopping experiences. Augmented reality is a technology that integrates digital elements into the real world in real time through digital devices such as smartphones or tablets (Ekawati et al., 2025). Within the cosmetics industry, AR technology is implemented in the form of virtual try-on (VTO), a feature that enables consumers to virtually try cosmetic products using their device cameras (Yim et al., 2017). Through AR VTO features, consumers can visualize various cosmetic products such as lipstick, blush, foundation, eyeshadow, and other products without physically applying them (Smink et al., 2019). Numerous studies have shown that the implementation of AR VTO can enhance the shopping experience, reduce product uncertainty, and assist consumers in visually evaluating products, thereby potentially increasing consumer confidence in making online cosmetic purchasing decisions (Hilken et al., 2017; Jiang et al., 2021; Plotkina & Saurel, 2019).

In line with these developments, the market potential for AR technology in Indonesia is considered highly substantial. By 2029, the number of AR and VR users in Indonesia is projected to reach 145 million people, with a penetration rate of 50 percent, increasing from 47 percent in 2024 (TransTRACK, 2024). This potential has encouraged many cosmetic brands, both local and international, to invest in the development and implementation of AR VTO features as part of their digital marketing strategies in Indonesia. Various cosmetic brands such as Wardah, Make Over, Emina, Instaperfect, Looke, Maybelline, L'Oréal Paris, and Revlon have provided AR VTO features through their official websites or applications. This condition indicates that AR VTO has become one of the increasingly common technological innovations available within Indonesia's digital cosmetic shopping ecosystem.

Nevertheless, the availability of AR VTO technology does not automatically guarantee that consumers will continuously utilize the feature. In technology adoption studies, the initial use of an innovation is not always followed by sustained long-term usage (Bhattacherjee, 2001; Venkatesh et al., 2012). The success of a digital technology is determined not only by the extent to which it is initially adopted but also by users' intention to continuously use the technology repeatedly in relevant activities (Thong et al., 2006). This condition is reflected in global survey findings indicating that fewer than half of consumers express interest in using augmented reality before making purchases (YouGov, 2021). Therefore, although consumers may have tried AR VTO features, it cannot yet be assured that they possess the intention to continue using such features consistently in the cosmetic purchasing decision-making process.

This condition indicates that the primary issue in AR VTO implementation lies not merely in technological sophistication, but rather in how consumers perceive the benefits and value of the feature within their shopping context (Pantano et al., 2017). Consumers' attitudes toward AR VTO and the perceived value derived from the feature constitute crucial psychological factors in shaping reuse intention (Rese et al., 2017; Javornik et al., 2016). Without favorable attitudes and strong value perceptions, the use of AR VTO may remain situational and unsustainable, regardless of the availability and technological potential offered by companies (McLean & Wilson, 2019). Therefore, understanding the factors influencing reuse intention toward AR VTO is essential to ensure that technological investments made by cosmetic brands can be utilized optimally by consumers (Rauschnabel et al., 2022).

This perspective is consistent with the critical mass theory proposed by Markus (1994), which states that a new technology will provide optimal benefits once it reaches a certain threshold of users. Individual decisions to use technology are influenced not only by the availability of the technology itself but also by the level of adoption and perceived value within the community (Oliver et al., 1985). As more users adopt an innovation, the technology becomes increasingly perceived as valuable and beneficial by other users and potential adopters, thereby creating a network effect that strengthens usage continuity (Markus, 1994; Van Slyke et al., 2007). In the context of AR VTO, although this technology has become widely available, the sustainability of its usage greatly depends on whether consumers perceive sufficient added value to motivate repeated use. Therefore, it is important to understand whether psychological factors such as attitude and perceived value are truly capable of encouraging the formation of sustained usage intention toward AR VTO. Although conceptually these variables are often regarded as key determinants within technology adoption models, empirical evidence indicates that their influence is not always consistent across various digital technology contexts.

Variations in previous research findings indicate that the relationships among attitude, perceived value, and intention are not always consistent across different digital technology contexts, including studies discussing augmented reality-based technologies. Several studies have found that attitude and perceived value positively influence intention to use AR technology. Jiang et al. (2021) found that attitude toward augmented reality shopping applications positively and significantly affects reuse intention through the mediation of perceived value. Daassi and Debbabi (2021) also

found that attitude toward AR technology positively and significantly influences reuse intention. These findings are further supported by the study conducted by Alimamy and Al-Imamy (2022), which demonstrated that individuals who favor AR technology significantly influence perceived value within the context of online shopping.

However, several studies have reported different findings. The study conducted by Sudibyo et al. (2025) regarding intention to reuse ride-hailing applications revealed that attitude does not significantly influence reuse intention. This finding indicates that liking an application is not always sufficient to encourage users to consistently reuse it. Similar findings were also reported by Gwi-Gon and Pidada (2024), who found that perceived value does not significantly affect reuse intention in mobile shopping applications, suggesting that the sustainability of technology usage is not always determined solely by value perception. These findings emphasize that the relationships among attitude, perceived value, and reuse intention still leave room for further investigation, particularly within the context of AR VTO in the digital cosmetics industry.

Based on these inconsistencies in empirical findings, this study is important to re-examine the roles of attitude and perceived value in shaping reuse intention toward the use of AR VTO in online cosmetic shopping in Indonesia. This study specifically focuses on Generation Z in Denpasar City as the most active group of digital technology users with high levels of internet usage and digital literacy. Therefore, this study is expected to provide more contextual and in-depth empirical insights for the development of sustainable AR VTO utilization strategies within Indonesia's digital commerce ecosystem

METHOD

This study employed a quantitative approach with a causal associative design to analyze the effect of attitude toward AR VTO on reuse intention through perceived value as a mediating variable. According to Sugiyono (2023:65), causality research aims to identify cause-and-effect relationships among variables. The study was conducted in Denpasar due to the high level of internet access and digital literacy among the population, which supports the utilization of augmented reality virtual try-on (AR VTO) technology in online cosmetic purchases. The object of the study focused on the consumer behavior of Generation Z (born between 1997–2012) residing in Denpasar City who had previously used AR VTO features on official cosmetic brand applications or websites. The research variables consisted of the exogenous variable attitude toward AR VTO, the mediating variable perceived value, and the endogenous variable reuse intention, with indicators adapted from Jiang et al. (2021), Daassi and Debbabi (2021), Rese et al. (2017), Wu et al. (2025), and Jeganathan and Szymkowiak (2025).

The research population comprised residents of Denpasar City who had used AR VTO technology in the context of cosmetics and were categorized as an infinite population because the exact number was unknown. The sampling technique employed was non-probability sampling using a purposive sampling method (Sugiyono, 2023:133). The sample size was determined based on 5–10 times the number of research indicators, resulting in a range of 60–120 respondents. The respondent criteria included Generation

Z individuals aged at least 18 years, possessing a minimum educational background of senior high school or equivalent, residing in Denpasar City, and having used AR VTO features to virtually try cosmetic products. The research data consisted of quantitative and qualitative data derived from primary data collected through the distribution of Google Form-based questionnaires, as well as secondary data obtained from literature and related empirical studies. The research instrument utilized a 1–5 Likert scale and satisfied validity testing requirements with outer loading values greater than 0.70, as well as reliability testing requirements with Cronbach's alpha and composite reliability values exceeding 0.70 (Hair et al., 2022; Ghozali, 2023).

The data analysis techniques employed included descriptive statistical analysis and inferential statistics based on Structural Equation Modeling (SEM) using the Partial Least Square (PLS) approach with SmartPLS 4.0 software. The PLS method was selected because it is flexible for small sample sizes and does not require numerous statistical assumptions (Dhamayantie & Fauzan, 2017). Model evaluation was conducted through the outer model and inner model. The outer model was used to test convergent validity, discriminant validity, and construct reliability, while the inner model was used to assess R^2 values, path coefficients, and t-statistics through the bootstrapping procedure (Hair et al., 2022:186). Hypothesis testing was conducted using p-values with a significance level of 0.05, whereas mediation testing aimed to determine whether perceived value functioned as a partial mediator, full mediator, or non-mediator in the relationship between attitude toward AR VTO and reuse intention (Hair et al., 2022).

RESULTS AND DISCUSSION

Respondent Characteristics

Table 1. Characteristics of Research Respondents

Variable	Classification	Number (People)	Percentage (%)
Gender	Male	4	3.3
	Female	116	96.7
	Total	120	100
Age	18–21	40	33.3
	22–25	68	56.7
	26–29	12	10
	Total	120	100
Last Educational Attainment	Senior High School/Equivalent	87	72.5
	Diploma	8	6.7
	Bachelor's Degree	22	18.3
	Postgraduate Degree	3	2.5
	Total	120	100
Occupation	Student	87	72.5
	Entrepreneur	10	8.3
	Civil Servant	6	5
	Private Employee	14	11.7
	Model	3	2.5

Variable	Classification	Number (People)	Percentage (%)
	Total	120	100

Source: Processed data, 2026

Table 1 presents the characteristics of the respondents, namely AR VTO cosmetic users in Denpasar City, who were predominantly female (96.7%) and mostly aged 22–25 years. Based on educational attainment, most respondents had a senior high school or equivalent educational background, while postgraduate respondents represented the smallest group. In terms of occupation, the majority of respondents were students, whereas models constituted the smallest proportion of respondents.

Description of Research Variables

Table 2. Categories of Variable Descriptions

Average Score	Reuse Intention	Attitude toward AR VTO	Perceived Value
1.00 – 1.79	Very Low	Very Low	Very Low
1.80 – 2.59	Low	Low	Low
2.60 – 3.39	Moderate	Moderate	Moderate
3.40 – 4.19	High	High	High
4.20 – 5.00	Very High	Very High	Very High

Source: Sugiyono (2023:145)

Based on the results of data processing, it was found that the variables attitude toward AR VTO, perceived value, and reuse intention were all categorized as high, with average scores of 3.81, 3.82, and 3.64, respectively. All indicators across the three variables also demonstrated high category scores, indicating that respondents possessed positive attitudes toward the use of Augmented Reality Virtual Try-On (AR VTO) in cosmetic shopping, perceived the technology as providing strong functional, emotional, and social value, and demonstrated a tendency to reuse, recommend, and share positive experiences related to the use of AR VTO in online cosmetic shopping activities.

Measurement Model Evaluation Results (Outer Model)

1) Convergent validity

Table 3. Outer Loading Test Results

Variable	Indicator	Outer Loading	Description
Reuse intention (Y)	Y1	0,747	Valid
	Y2	0,815	Valid
	Y3	0,788	Valid
	Y4	0,792	Valid
Attitude toward AR VTO (X)	X1	0,762	Valid
	X2	0,770	Valid
	X3	0,792	Valid
	X4	0,826	Valid

	X5	0,806	Valid
Perceived value (M)	M1	0,805	Valid
	M2	0,806	Valid
	M3	0,851	Valid

Source: Processed data, 2026.

The results of convergent validity testing using outer loading indicate that all indicators for each variable have values above 0.70, thereby meeting the requirements for convergent validity and being declared valid. This finding indicates a strong correlation between the reflective indicators and their latent variables. In addition, testing using Average Variance Extracted (AVE) revealed that each latent variable has an AVE value greater than 0.50, indicating that all variables possess good convergent validity.

Table 4. AVE Test Results

	Average variance extracted (AVE)
Attitude toward AR VTO (X)	0,627
Perceived value (M)	0,674
Reuse intention (Y)	0,617

Source: Processed data, 2026

Table 4 shows that the AVE values for the variables attitude toward AR VTO, perceived value, and reuse intention are all greater than 0.50. This indicates that the convergent validity test using AVE values is valid.

2) Discriminant validity

Table 5. Cross Loading Test Results

	Attitude toward AR VTO (X)	**Perceived value (M)**	**Reuse intention (Y)**	**Description**
M1	0,329	**0,805**	0,373	Valid
M2	0,382	**0,806**	0,379	Valid
M3	0,524	**0,851**	0,435	Valid
X1	**0,762**	0,409	0,323	Valid
X2	**0,770**	0,316	0,407	Valid
X3	**0,792**	0,459	0,310	Valid
X4	**0,826**	0,401	0,437	Valid
X5	**0,806**	0,445	0,331	Valid
Y1	0,332	0,334	**0,747**	Valid
Y2	0,407	0,429	**0,815**	Valid
Y3	0,366	0,380	**0,788**	Valid
Y4	0,334	0,372	**0,792**	Valid

Source: Processed data, 2026.

Discriminant validity values greater than 0.70 indicate that the latent variables function as good comparators within the model. Table 5 demonstrates excellent discriminant validity, as the cross-loading value of each indicator on its corresponding variable is greater than its cross-loading value on other variables and exceeds 0.70. Therefore, the discriminant validity test using cross loading in this study is considered valid.

Another method used to assess discriminant validity is by examining the square root of AVE through the Fornell-Larcker test. A good model requires the square root of AVE for each variable to be greater than the correlations among variables (Hair et al., 2022:121). The results of the discriminant validity test using the Fornell-Larcker method are presented in Table 6 below.

Table 6. Fornell-Larcker Test Results

	Attitude toward AR VTO (X)	Perceived value (M)	Reuse intention (Y)
Attitude toward AR VTO (X)	0,792		
Perceived value (M)	0,514	0,821	
Reuse intention (Y)	0,457	0,485	0,786

Source: Processed data, 2026

Table 6 indicates that all variables have square root AVE values greater than their correlations with other variables, with values of 0.792 for attitude toward AR VTO, 0.821 for perceived value, and 0.786 for reuse intention. These results indicate that the discriminant validity test using the Fornell-Larcker method has been successfully fulfilled for all variables.

Another method for assessing discriminant validity is through the heterotrait-monotrait ratio of correlations (HTMT), where values below 0.90 indicate acceptable discriminant validity. HTMT is considered a more sensitive and accurate measure of discriminant validity (Hair et al., 2022:122). The results of the HTMT test are presented in Table 7 below.

Table 7. HTMT Test Results

	Attitude toward AR VTO (X)	Perceived value (M)	Reuse intention (Y)
Attitude toward AR VTO (X)			
Perceived value (M)	0,621		
Reuse intention (Y)	0,552	0,615	

Source: Processed data, 2026

Table 7 shows that all HTMT values are below 0.90 for each variable pair. Therefore, it can be concluded that the discriminant validity requirement using HTMT testing has been fulfilled.

3) Composite reliability

Table 8. Composite Reliability Test Results

	Cronbach's alpha	Composite reliability
Attitude toward AR VTO (X)	0,851	0,893
Perceived value (M)	0,761	0,861
Reuse intention (Y)	0,794	0,866

Source: Processed data, 2026

Table 8 indicates that both Cronbach's alpha and composite reliability values in this study exceed 0.70, meaning that all indicators used in this study are reliable

Structural Model Evaluation Results (Inner Model)

1) Inner VIF Multicollinearity Test

Table 9. VIF Test Results

	Attitude toward AR VTO (X)	Perceived value (M)	Reuse intention (Y)
Attitude toward AR VTO (X)		1,000	1,359
Perceived value (M)			1,359
Reuse intention (Y)			

Source: Processed data, 2026.

Based on Table 9, the VIF test results indicate that all inner VIF values are below 5, suggesting that the level of multicollinearity among variables is low. These findings indicate that the SEM-PLS parameter estimates are robust and unbiased

2) R-square Value

Table 10. R-square Test Results

Research Variable	R-square Value	Adjusted R-square Value
Perceived Value (M)	0,264	0,258
Reuse Intention (Y)	0,294	0,282

Source: Processed data, 2026

Based on the data presented in Table 10, the R-square value for perceived value is 0.264, indicating that the research model has a weak explanatory power, with 26.4 percent of the variation in perceived value explained by attitude toward AR VTO, while the remaining 73.6 percent is influenced by other factors not included in the model. Meanwhile, the R-square value for reuse intention is 0.294, indicating that 29.4 percent of the variation in reuse intention is explained by attitude toward AR VTO and perceived value, whereas the remaining 70.6 percent is influenced by other factors outside the model.

3) F-square Value

Table 11. F-square Test Results

	Attitude toward AR VTO (X)	Perceived value (M)	Reuse intention (Y)
Attitude toward AR VTO (X)		0,359	0,083
Perceived value (M)			0,120
Reuse intention (Y)			

Source: Processed data, 2026

Based on Table 11, the relationship between attitude toward AR VTO and perceived value has an F-square value of 0.359, indicating a large effect size. Meanwhile, the relationships between attitude toward AR VTO and reuse intention, as well as perceived value and reuse intention, have F-square values of 0.083 and 0.120, respectively, indicating small effect sizes. These findings suggest that attitude toward AR VTO contributes more strongly to perceived value than directly to reuse intention.

4) Q-square Value

Table 12. Q-square Test Results

Research Variable	Q^2 (=1-SSE/SSO)

Perceived Value (M)	0,169
Reuse Intention (Y)	0,170

Source: Processed data, 2026

Based on Table 12, the perceived value and reuse intention variables have Q-square values of 0.169 and 0.170, respectively, indicating that the research model possesses predictive relevance because the values are greater than 0. However, since both values fall within the range of 0 to 0.25, the predictive capability of the model is categorized as weak. This indicates that there are still other variables outside the research model that explain perceived value and reuse intention.

5) Hypothesis Testing (Bootstrapping)

Table 13. Direct Effect Test Results

Hypothesis	Path Coefficient (β)	t-statistic	p-value
Attitude Toward AR VTO (X) → Reuse Intention (Y)	0,283	2,989	0,003
Attitude Toward AR VTO (X) → Perceived Value (M)	0,514	7,319	0,000
Perceived Value (M) → Reuse Intention (Y)	0,340	3,740	0,000

Source: Processed data, 2026

Based on Table 13, the direct effects among variables can be explained as follows:

a) The hypothesis testing results show a path coefficient value of 0.283, indicating that attitude toward AR VTO positively affects reuse intention. Furthermore, the t-statistic value of 2.989 (> 1.96) and p-value of 0.003 (< 0.05) indicate that the effect is significant. Therefore, H1, which states that attitude toward AR VTO has a positive and significant effect on reuse intention, is accepted.

b) The hypothesis testing results show a path coefficient value of 0.514, indicating that attitude toward AR VTO positively affects perceived value. The t-statistic value of 7.319 (> 1.96) and p-value of 0.000 (< 0.05) indicate that the effect is significant. Therefore, H2, which states that attitude toward AR VTO has a positive and significant effect on perceived value, is accepted.

c) The hypothesis testing results show a path coefficient value of 0.340, indicating that perceived value positively affects reuse intention. The t-statistic value of 3.740 (> 1.96) and p-value of 0.000 (< 0.05) indicate that the effect is significant. Therefore, H3, which states that perceived value has a positive and significant effect on reuse intention, is accepted.

The results of the indirect effect test in this study are presented in Table 14 below

Table 14. Indirect Effect Test Results

Hypothesis	Path Coefficient (β)	t-statistic	p-value
Attitude Toward AR VTO (X) → Perceived Value (M) → Reuse Intention (Y)	0,175	3,100	0,002

Source: Processed data, 2026

Based on Table 14, the indirect effect among variables can be explained by the path coefficient value of 0.175, indicating that attitude toward AR VTO positively affects reuse intention through perceived value. The t-statistic value of 3.100 (> 1.96) and p-value of 0.002 (< 0.05) indicate that the indirect effect is significant. Therefore, H4, which states that perceived value is capable of mediating the effect of attitude toward AR VTO on reuse intention, is accepted

6) Mediation Testing Results

The basis for testing mediation variables can be identified by examining the significance of direct effects among variables using the approach proposed by Hair et al. (2022), as follows:

a) Examining the direct effect of the exogenous variable on the mediating variable (p1).

Based on Table 13, the effect of attitude toward AR VTO on perceived value shows a p-value of 0.000 < 0.05, indicating that attitude toward AR VTO significantly affects perceived value.

b) Examining the direct effect of the mediating variable on the endogenous variable (p2).

Based on Table 13, the effect of perceived value on reuse intention shows a p-value of 0.000 < 0.05, indicating that perceived value significantly affects reuse intention.

c) Examining the direct effect of the exogenous variable on the endogenous variable (p3).

Based on Table 13, the effect of attitude toward AR VTO on reuse intention shows a p-value of 0.003 < 0.05, indicating that attitude toward AR VTO significantly affects reuse intention.

The mediating role of perceived value in the relationship between attitude toward AR VTO and reuse intention, based on the testing results of the three effect pathways, indicates that the direct effects of attitude toward AR VTO on perceived value (p1) and perceived value on reuse intention (p2) are both positive and significant. In addition, the direct effect of attitude toward AR VTO on reuse intention (p3) is also positive and significant. Therefore, perceived value in this research model functions as a partial mediating variable in the relationship between attitude toward AR VTO and reuse intention.

Discussion

The results of this study indicate that attitude toward AR VTO has a positive and significant effect on both reuse intention and perceived value, suggesting that the more positive users' attitudes toward cosmetic AR VTO features are, the higher the perceived value and the intention to reuse the feature. This positive attitude reflects users' evaluations of the benefits of AR VTO in supporting the online cosmetic shopping process, particularly in visualizing product suitability and reducing uncertainty prior to purchase. These findings are consistent with the Theory of Reasoned Action (TRA), which explains that individuals' attitudes toward a behavior influence their behavioral intentions, where users who perceive AR VTO as a useful technology tend to have a stronger intention to continue using it.

In addition, perceived value was also found to have a positive and significant effect on reuse intention, indicating that the higher the value perceived by users toward AR VTO, the stronger their intention to reuse the feature. This perceived value is formed through the functional, emotional, and efficiency-related benefits experienced by users while using AR VTO in online cosmetic shopping activities. This study also found that perceived value partially mediates the effect of attitude toward AR VTO on reuse intention, indicating that users' positive attitudes not only directly encourage reuse intention but also indirectly influence it through the formation of perceived value toward the technology. These findings further support previous studies stating that attitude toward AR VTO, perceived value, and reuse intention have positive and significant relationships in the use of AR VTO technology for online cosmetic shopping.

CONCLUSION

Based on the results of the analysis presented in the previous chapter, several conclusions can be formulated as follows:

1. Attitude toward AR VTO has been proven to have a positive and significant effect on reuse intention among users of cosmetic AR VTO features. This indicates that the higher the individual's level of preference toward the use of cosmetic AR VTO features, the higher the intention to reuse the feature. Users perceive that AR VTO provides an enjoyable and engaging experience, thereby encouraging their willingness to continuously use the feature over time.
2. Attitude toward AR VTO has been proven to have a positive and significant effect on perceived value among users of cosmetic AR VTO features. This indicates that the higher the individual's level of preference toward the use of cosmetic AR VTO features, the higher the perceived value derived from the use of the feature. Users perceive that AR VTO provides benefits, convenience, and valuable user experiences in the process of virtually trying cosmetic products.
3. Perceived value has been proven to have a positive and significant effect on reuse intention among users of cosmetic AR VTO features. This indicates that the higher the value perceived by individuals from using cosmetic AR VTO features, the higher their intention to reuse the feature. Users perceive that AR VTO provides benefits and user experiences that meet their expectations, thereby encouraging their intention to continue using the feature.
4. Perceived value has been proven to partially mediate the effect of attitude toward AR VTO on reuse intention among users of cosmetic AR VTO features. This indicates that attitude toward AR VTO not only has a direct effect on reuse intention but also an indirect effect through perceived value. These findings demonstrate that the higher the individual's preference toward the use of cosmetic AR VTO features, the higher the perceived value derived from using the feature, which in turn increases the individual's intention to reuse cosmetic AR VTO features.

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