

Determinants of Purchase Intention toward Apple Watch Smartwatch in Bandung City: The role of Perceived Usefulness for Health, Social-Adjustive Function, and Value-Expressive Function

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Article history:

Received June 18, 2026

Revised July 20, 2026

Accepted July 23, 2026

Abstract

This study examines how perceived usefulness for health (PUFH), social-adjustive function (SAF), and value-expressive function (VEF) affect purchase intentions regarding Apple Watch products in Bandung. The research addresses fluctuating consumer interest, as the Apple Watch, though a market leader, has seen a decline in the Top Brand index. A quantitative survey was administered to 124 purposively selected participants who were at least 17 years old and had prior familiarity with Apple Watch products. The dataset was evaluated through multiple linear regression using SPSS version 25. All independent variables showed positive and statistically significant effects on purchase intention, both separately and jointly. VEF emerged as the most influential predictor, followed by PUFH and SAF. These findings suggest that both functional health benefits and the motivations for self-expression and social approval shape consumers' decisions to purchase an Apple Watch. This research strengthens the combined application of the Technology Acceptance Model and the Functional Theory of Attitudes. Applying these frameworks to wearable technology research provides practical insights for marketing strategies that address functional, social, and self-expressive considerations.

Keywords:

Apple Watch; Perceived Usefulness for Health; Social-Adjustive Function; Value-Expressive Function; Purchase Intention.

1. INTRODUCTION

Modern lifestyles that emphasize health, efficiency, and digital connectivity have increased demand for wearable technologies, especially smartwatches, which support daily tasks and continuous health monitoring (Hosseini et al., 2023; Kher & Patel, 2022). The Apple Watch is distinguished by its advanced health-monitoring capabilities, including electrocardiography (ECG), heart-rate and blood-oxygen measurement, physical-activity monitoring, and features that support the early identification of certain health conditions (Köhler et al., 2024). In addition to health benefits, smartwatches are now part of social dynamics, with purchasing decisions influenced by both practical and social factors (Liu et al., 2022). The appeal of the Apple Watch extends beyond its health-related benefits. Its use may enhance users' social image and acceptance, reflecting the social-adjustive function, while also providing a means of communicating personal identity, values, and lifestyle preferences, which represents the value-expressive function (Su et al., 2024; Mamun et al., 2023). Therefore, consumers' decisions to adopt the Apple Watch are influenced not only by its perceived health utility but also by social conformity and opportunities for self-expression.

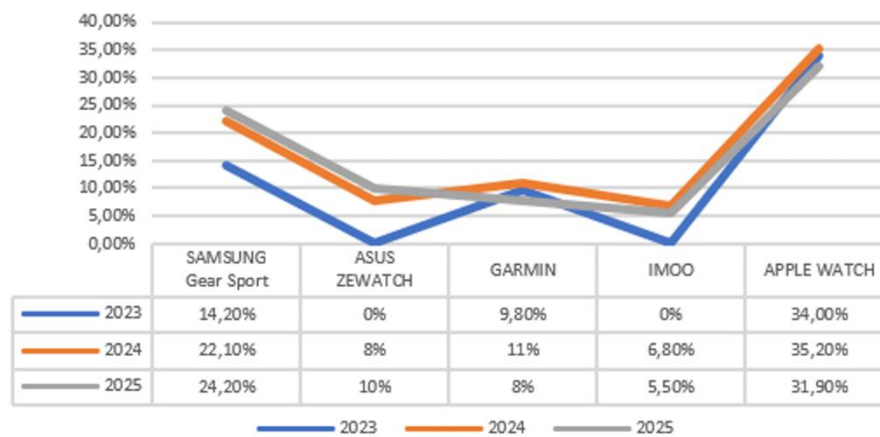


Figure 1. Subcategories of smartwatches in 2023-2025
(Source: Top Brand Index (TBI), data processed 2025)

According to Top Brand Index (TBI) data from 2023 to 2025, the Apple Watch consistently held the leading position in Indonesia's smartwatch category in Indonesia. The index value increased from 34.00% in 2023 to 35.20% in 2024, then declined to 31.90% in 2025. Although the Apple Watch remained the market leader, the observed decline underscores the challenges of sustaining consumer interest amid growing competition in the smartwatch industry. Trend analysis reveals a pattern of both upward and downward movements in the index during the observation period.

Table 1. Trend Analysis of Apple Watch Smartwatches, 2023–2025

Year	TBI Index Value	Changes
2023	34.00%	-
2024	35.20%	+1.20%
2025	31.90%	-3.30%

Table 1, presents Top Brand Index (TBI) data indicating that Apple Watch, the leading brand in Indonesia's smartwatch market, experienced notable fluctuations from 2023 to 2025. In 2024, the TBI increased from 34.00% to 35.20%, marking a 1.20% rise in consumer interest. This increase is attributed to the introduction of new product series with updated health features and improved technology integration tailored to user requirements. In contrast, the TBI declined to 31.90% in 2025, a 3.30% decrease that exceeded the previous year's gain. The Top Brand Award Survey assesses TBI based on top-of-mind awareness, last usage, and future intention, with the latter reflecting consumer purchase intention. This decline indicates ongoing challenges in maintaining consumer interest in the Apple Watch.

The Technology Acceptance Model (TAM) identifies perceived usefulness as a primary factor influencing the adoption of new technologies. This study extends the concept to perceived usefulness for health, defined as the perceived benefits of Apple Watch health features in supporting physical wellbeing, and hypothesizes that perception increases purchase intention. As a lifestyle-oriented product, smartwatch purchase decisions are influenced by both functional and social or psychological factors. The Functional Theory of Attitudes, social-adjustive function addresses the need for social acceptance, whereas the value-expressive function allows individuals to convey their identity through products. Although most studies indicate that perceived usefulness, social-adjustive, and value-expressive functions positively influence purchase intention, inconsistent findings and declining interest in the Apple Watch suggest a potential disconnect between technological benefits and consumer behavior. This study addresses a research gap by examining these three variables collectively in the context of the Apple Watch in Indonesia, where relevant studies remain scarce. The research specifically targets Bandung, an urban area characterized by technology- and health-oriented consumers, with the objective of analyzing how these variables affect purchase intention for Apple Watch products in this setting.

Davis developed the Technology Acceptance Model in 1989 as a framework for understanding why individuals accept or reject information systems. The model serves as the conceptual foundation for the perceived usefulness construct applied in this study. Within TAM, individuals tend to adopt a technology when they believe that its use will generate meaningful benefits. Accordingly, perceived usefulness for health refers to the extent to which consumers believe Apple Watch features can assist health monitoring, strengthen fitness awareness, and support healthier routines (Yang et al., 2022). In wearable-device markets, consumers' assessment of health-related value can influence their willingness to buy, particularly when product functions correspond to personal needs. Wang et al. (2022) reported that perceived usefulness for health contributes positively to purchase intention for wearable technology, while Sahi (2024) reported a similar relationship. These empirical results support the expectation that stronger perceived health benefits will raise interest in

purchasing a smartwatch. Drawing upon the theoretical arguments and findings from previous studies, the hypothesis is formulated as follows: H1: Perceived usefulness for health positive on purchase intention.

According to Katz's (1960) Functional Theory of Attitudes, consumption may fulfill interpersonal purposes, particularly the attainment of social approval and recognition. For smartwatch users, the social-adjustive function reflects the use of an Apple Watch to strengthen social fit and project a desirable image (Ngo et al., 2020). Purchase intention should increase when the product helps consumers meet these social-positioning needs. Wang et al. (2022) likewise identified a favorable relationship between social-adjustive motives and consumption patterns, suggesting that buyers may favor products consistent with group expectations. Drawing on this theoretical argument and the supporting empirical findings, H2 is formulated as follows: H2: Social-adjustive function has a positive effect on purchase intention.

Under Katz's (1960) framework, products can function as symbols through which consumers communicate beliefs, values, and identity. Applied to smartwatches, the value-expressive function captures the extent to which an Apple Watch represents the user's personality, lifestyle, and preferred self-image. Consumers should show stronger purchase interest when a product is strongly aligned with their self-concept. Studies by Singh et al. (2022) and Cho et al. (2022) show that value-expressive motives can enhance consumers' willingness to purchase. This pattern implies that identity congruence may direct consumers toward products that embody their personal values. Accordingly, H3 is specified as follows: H3: Value-Expressive Function has a positive effect on Purchase Intention.

Perceived health usefulness, social-adjustment motives, and identity-expressive considerations are significant determinants shaping consumer intention to purchase wearable technology. Purchase intention is enhanced when products provide health benefits, facilitate social acceptance, and reinforce self-identity. Wang et al. (2022) demonstrated how these variables collectively influence consumer purchase intention for technology-based products. Therefore, a joint-effect hypothesis is formulated: H4: Perceived Usefulness for Health, Social-Adjustive Function, and Value-Expressive Function simultaneously have a positive effect on Purchase Intention.

2. RESEARCH METHOD

A quantitative survey was designed to assess the effects of perceived health usefulness, the social-adjustive function, and the value-expressive function on purchase intentions for Apple Watch products in Bandung. The research population comprised Bandung City residents who were familiar with or interested in the Apple Watch. Purposive sampling was employed, with inclusion criteria specifying that respondents be at least 17 years old and knowledgeable about Apple Watch products. Data were collected from 124 respondents using an online questionnaire in which every statement was rated on a five-point Likert scale. Before the hypotheses were examined, the measurement instrument underwent evaluation for validity and reliability to establish the adequacy of its measurements. Assessment of the classical assumptions concerning normality, multicollinearity, and heteroscedasticity confirmed that the regression model satisfied the requirements of the Best Linear Unbiased Estimator (BLUE). Descriptive statistical analysis and multiple linear regression were applied to determine the individual and joint effects of the research variables. All analyses were conducted using SPSS version 25. The conceptual model for this study (Figure 2).

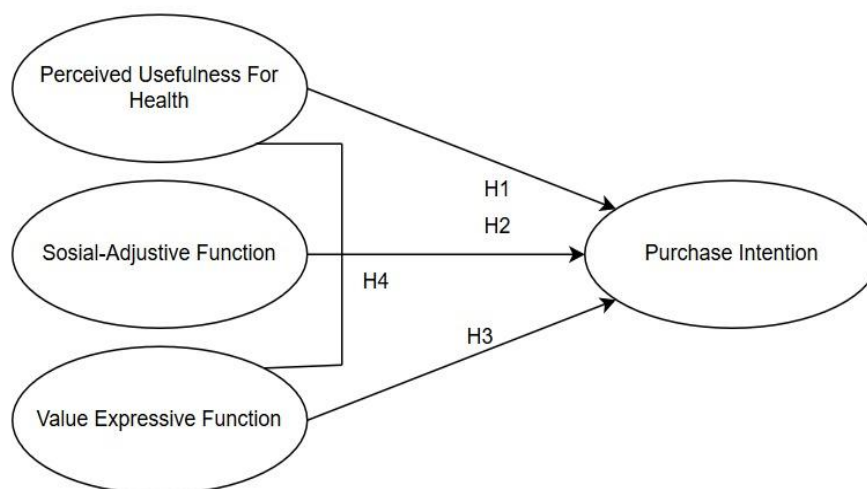


Figure 2. presents the conceptual framework adopted in this study

3. RESULTS AND DISCUSSION

The study participants were consumers residing in Bandung who were familiar with Apple Watch products. The sample comprised 65 men (53.1%) and 59 women (46.9%). The largest age group was 21–26 years (41.9%), followed by 27–32 years (19.6%), 17–20 years (13.4%), 33–38 years (10.6%), 39–44 years (7.8%), and over 45 years (6.7%). Regarding employment status, most respondents were students (33.5%), followed by private employees (17.9%), entrepreneurs (11.2%), housewives (8.9%), civil servants (8.9%), laborers (7.3%), other categories (6.7%), and pupils (5.6%). The demographic diversity in gender, age, and occupation enhances the representativeness of the analysis of buying interest in Apple Watch products in Bandung.

3.1. Validity and Reliability Test

Table 2. Validity and Reliability of Test Results

Variable	Statement	Validity test			Reliability test	
		r-Count	r-Table	P(Sig)	Remaks	Cronbach's Alpha
Perceived Usefulness for Health	PUFH 1	0.867	0.1764	0.000	Valid	0.837 > 0.06
	PUFH 2	0.871		0.000	Valid	
	PUFH 3	0.872		0.000	Valid	
Social Adjustive Function	SAF 1	0.878	0.1764	0.000	Valid	0.866 > 0.06
	SAF 2	0.845		0.000	Valid	
	SAF 3	0.822		0.000	Valid	
	SAF 4	0.834		0.000	Valid	
Value Expressive function	VEF 1	0.869	0.1764	0.000	Valid	0.836 > 0.06
	VEF 2	0.897		0.000	Valid	
	VEF 3	0.838		0.000	Valid	
Purchase intention	PI 1	0.839	0.1764	0.000	Valid	0.817 > 0.06
	PI 2	0.847		0.000	Valid	
	PI 3	0.881		0.000	Valid	

Source: SPSS Processed Data, 2026

As presented in Table 2, all statement items for each variable demonstrate validity. Each r-count surpasses the critical r value of 0.1764, and the reported significance level (0.000) is below 0.05. R-count values range from 0.867 to 0.872 for Perceived Usefulness for Health, 0.822 to 0.878 for Social-Adjustive Function, 0.838 to 0.897 for Value-Expressive Function, and 0.839 to 0.881 for Purchase Intention. The highest r-count values for each variable are PUFH3 (0.872), SAF1 (0.878), VEF2 (0.897), and PI3 (0.881), suggesting that these items most effectively represent their respective constructs.

All variables demonstrated a Cronbach's alpha exceeding 0.60, with coefficients of 0.837 for PUFH, 0.866 for SAF, 0.836 for VEF, and 0.817 for PI. These findings indicate that the research instruments possess sufficient reliability and are suitable for subsequent analysis.

3.2. Descriptive Analysis

Table 3. Descriptive Analysis Results

No	Results Descriptive Analysis	Mean Statistik	Mean Value	Criteria
1	Perceived Usefulness for Health (PUFH)	3.84		Good
2	Social-adjustive function (SAF)	3.78		Good
3	Value-expressive function (VEF)	3.79		Good
4	Purchase intention (PI)	3.75		Good

According to the results presented in Table 3, the Perceived Usefulness for Health (PUFH) variable achieved an average score of 3.84, classified as good. This result suggests that respondents perceive the Apple Watch as beneficial for health support. The Social-Adjustive Function (SAF) variable recorded a mean score of 3.78, also classified within the good category, suggesting that the Apple Watch is considered effective in facilitating social interaction and enhancing user self-image.

The Value-Expressive Function (VEF) variable achieved an average score of 3.79, classified as good. This finding suggests that the Apple Watch is perceived as a means for expressing personal values and identity. The Purchase Intention (PI) variable recorded an average score of 3.75, also classified as good, reflecting a positive intention among respondents to purchase the Apple Watch. Overall, all variables were categorized as good, indicating favorable perceptions and purchase intentions toward the product.

3.3. Classical Assumption Test

3.3.1. Normality Test

Table 4. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		124
Normal Parameters	Mean Std. Deviation	.0000000 ,72662859
Most Extreme Differences	Absolute	.065
	Positive	.065
	Negative	-.054
Test Statistic		.065
Asymp. Sig. (2-tailed)		.200

To evaluate whether the unstandardized residuals conformed to a normal pattern, the One-Sample Kolmogorov–Smirnov test was conducted. Table 4 presents a test statistic of 0.065, together with a two-tailed asymptotic significance of 0.200. Because the probability value was greater than the 0.05 significance criterion, the residuals were considered normally distributed. This confirmation of normality establishes a valid basis for subsequent regression analysis.

3.3.2. Multicollinearity Test

Table 5. Multicollinearity Test Results

Model (constant)	Tolerance	VIF
Perceived usefulness for health	0.142	7.042
Social-adjustive function	0.157	6.383
Value-expressive function	0.114	8.739
Dependent Variable: Purchase Intention		

The multicollinearity test assesses correlations among independent variables. Table 5 shows that the Perceived Usefulness for Health, Social-Adjustive Function, and Value-Expressive Function variables have Tolerance values of 0.142, 0.157, and 0.114, all above the 0.10 threshold. Their VIF values are 7.042, 6.383, and 8.739, each below 10.00. According to Ghazali (2021), these findings indicate the absence of multicollinearity between the predictor variables.

3.3.3. Heteroscedasticity Test

Table 6. Heteroscedasticity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	.676	.150		4.491	0.000
Perceived Usefulness for health	-0.001	0.032	-0.010	-0.041	0.968
Social-adjustive function	-0.027	0.024	-0.254	-1.107	0.271
Value-expressive function	0.031	0.036	0.231	0.863	0.390
Dependent Variable: ABS RES					

A heteroscedasticity assessment employed the Glejser procedure; the absolute residual values (ABS_RES) were modeled using the predictor variables. As shown in Table 5, the significance values for PUFH (0.968), SAF (0.271), and VEF (0.390) all exceed the 0.05 alpha threshold. These results indicate no heteroscedasticity, so residual variance is consistent across observations. Therefore, the classical assumptions are met, confirming that the regression model is suitable for hypothesis testing.

3.4. Multiple Regression Test (T Test & F Test)

3.4.1. Hypothesis Test (T Test)

Table 7. Uji Hypothesis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.328	.287		-1.142	.256
Perceived Usefulness for health	0.386	0.061	0.383	6.272	0.000
Social-adjustive function	0.119	0.046	0.152	2.606	0.010
Value-expressive function	0.470	0.069	0.461	6.777	0.000

Table 8. Simultaneous Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	956.799	3	318.933	589.319	0.000
Residual	64.943	120	0.541		
Total	1021.742	123			

Findings from the multiple regression models demonstrate how PUFH, SAF, and VEF individually influence purchase intention at a statistically significant level. The partial significance test demonstrates how higher perceived health benefits are associated with stronger behavioral intentions (coefficient = 0.386, $t = 6.272$, significance = $0.000 < 0.05$). The social-adjustive function also exerts a favorable and statistically meaningful influence (coefficient = 0.119; $t = 2.606$; $p = 0.010$, below the 0.05 criterion), although its impact appears less pronounced than the other variables. The value-expressive function emerges as the most influential factor (coefficient = 0.470, $t = 6.777$, significance = $0.000 < 0.05$), confirming that self-value expression is the primary determinant of this behavior.

The F test yielded a value of 589.319. A significance level of 0.000 (less than 0.05) confirms the joint contribution of all predictors, which exert statistically meaningful influence on purchase intention. The model demonstrates strong explanatory power. Each of the three independent variables exhibited both individual and collective significance, with the value-expressive function exerting the greatest influence.

4. CONCLUSION

This research supports the advancement of consumer decision-making research within the field of wearable technology acceptance, particularly through the joint application of TAM and Functional Theory of Attitudes to explain the formation of consumers' purchasing intentions toward the Apple Watch. The findings indicate that PUFH, SAF, and VEF simultaneously exert a statistically meaningful effect on consumers' purchasing intentions. Individually, each of these predictors also demonstrates a positive and statistically meaningful effect, the results showing value-expressive function emerging as the most dominant factor. These results reinforce the understanding that purchase intention for technology-based products is influenced not only by functional benefits, especially health-related advantages, but also by the need for social acceptance and self-identity expression. In this research context, the value-expressive dimension serves as the primary determinant, indicating that the Apple Watch is perceived not only as a technological device but also as a representation of lifestyle and personal identity. Future research is recommended to develop the model further by considering other relevant variables to enrich the explanation of purchase intention. Additionally, the respondent scope should be expanded to include more diverse geographic regions and demographic characteristics. Subsequent studies should also consider the latest developments in wearable technology, particularly updates in health features and digital technology integration, to ensure broader generalizability and continued relevance to technological advancements and evolving consumer behavior.

Smartwatch industry stakeholders, especially those working with Apple Watch and similar wearables, can apply these findings to enhance marketing strategies. Emphasize health benefits, social value, and self-identity in messaging. Highlight features like physical activity and heart health monitoring as key benefits that align with modern lifestyles. The social-adjustive function shows that social acceptance and recognition significantly influence purchase decisions. Promotional strategies should leverage influencers, user testimonials, and Apple Watch visualizations in relevant social contexts. The strong value-expressive function shows that the Apple Watch enables users to express their identity, values, and lifestyle. Branding should emphasize personalization, product design, and positioning that reflect users' character and identity.

ACKNOWLEDGEMENTS

The authors thank God Almighty for enabling the completion of this research. We also appreciate the support, guidance, and contributions from all individuals and institutions involved. We hope these findings will advance research and practice in digital consumer behavior.

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