Does Anthropomorphism and Augmented Reality Affect Purchase Decision On Shopee ?

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Abstract

In Indonesia, the expansion of online merchandising, mainly E-commerce, is proliferating. The phenomenon of Anthropomorphism and Augmented Reality is one method of enhancing purchasing decisions, particularly in the Shopee e-commerce application. Attracting consumers requires the use of Anthropomorphism and Augmented Reality. This study seeks to determine how Anthropomorphism and Augmented Reality influence Purchase Decisions. This method of research employs quantitative techniques. This study obtains primary data using a purposive sampling technique in which the sample is determined based on several specific factors. Using the formula for Unknown Populations with a 95% confidence level, the required number of respondents is 96.4, rounded to 100. Using SPPS 25, the Validity, Reliability, F, Determination Test (R2), and T-Test were evaluated. Consequently, based on the outcomes of the Anthropomorphism T-Test, purchasing decisions were affected. Similarly, augmented reality had an impact on purchasing decisions. According to the F test, Anthropomorphism and Augmented Reality impacted Purchase Decisions on Shopee.

Keywords: Anthropomorphism, Augmented Reality, Purchase Decision

1.   INTRODUCTION

Despite a minor slowdown in the first quarter of 2021, the growth of online retail has been substantial (Max, 2023). The demand for faster and more convenient services across

all channels and devices continues to rise, and the integration of the most recent technology to improve in-store efficiency and the shopping experience is an area of innovation that will continue to develop across all markets and distribution channels (Etsa, 2020). Several factors, such as changes in consumer preferences, the adoption of smartphones, and the demand for faster and more convenient services, are driving the transition toward online retail (kabarbisnis, 2020). However, some experts predict that once shopping centers reopen and the pandemic is under control, offline sales will again skyrocket while online sales will decline (Timora, 2021). In order to keep up with shifting consumer preferences in browsing, shopping, and purchasing, retailers worldwide are continuously experimenting with new ways to enhance the shopping experience for their customers, implementing new business models, and developing novel concepts. Adopting omnichannel distribution management skills is becoming increasingly essential for retailers, particularly as the role of physical stores evolves, and smartphone usage rises (Etsa, 2020).

Indonesia's e-commerce market will continue to develop at a rapid rate. In 2021, the value of Indonesia's e-commerce market was $43 billion, nearly six times its 2018 value (Wintels, 2023). The gross market value (GMV) of Indonesia's e-commerce market exceeded $30 billion in 2020 (trade.gov, 2022). The Indonesian e-commerce market will continue to increase by 23.8% in 2022, reaching IDR420.8 trillion ($30 billion) (GlobalData, 2022). The Indonesian e-commerce market will continue to grow at a compound annual growth rate (CAGR) of 10.4% between 2023 and 2027, resulting in a market size of $78.684.5 million by 2027 (EcommerceDB, 2023). During the forecast period, the Indonesia E-commerce Market will expand at a CAGR of over 14.4% (mordorintelligence.com, 2018). 75% of online consumers in Indonesia use mobile devices (trade.gov, 2022).Inadequate infrastructure, payment systems, and logistics are obstacles that must be passed for the Indonesian e-commerce industry to continue to grow (trade.gov, 2022). Indonesia's e-commerce market will likely continue to expand at a rapid rate. In Indonesia, mobile devices are mainly used for e-commerce transactions. However, obstacles must still be solved for the industry's continued expansion.

Shopee, Tokopedia, Lazada, Blibli, and Bukalapak are Indonesia's most prominent e-commerce platforms. Initially, Shopee was a mobile commerce platform. Shopee dominates the Indonesian e-commerce market despite being a relatively new platform (Wallex,2022; Kaplan, 2022). Tokopedia is one of the leading players in the Indonesian e-commerce market (mordorintelligence.com, 2018), as stated in the second sentence. In Indonesia, Lazada is a

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well-known second-tier platform. Blibli is another well-established second-tier platform in Indonesia, and Bukalapak is also a well-established second-tier platform in Indonesia (Tanuwidjaja, 2022). These platforms are among Indonesia's top 10 e-commerce platforms and have contributed to the country's e-commerce industry's expansion.

A *purchasing decision* is a process of examining information, assessing, evaluating, comparing, and making decisions regarding selecting a particular product (Kotler & Keller, 2009). Buying decisions involve a process of selection based on multiple factors, including benefits, quality, price, and discounts, before making a final decision (Dowling, 1986; Hsin et al., 2011). Specific drives, such as the need or wish to consume particular products, motivate the primary considerations of consumers' purchasing decisions (Hsin et al., 2011; Bai & Qin, 2016). Anthropomorphism is one factor that may prompt a person to make a purchasing decision. Whereas anthropomorphism attributes human characteristics to non-humans, Shopee may need to focus on novel experiences and an intuitive operating system.

Anthropomorphism, which refers to an individual's tendency to humanize non-human structures or objects, has been found to have a significant impact on consumer behavior and purchase decisions (Rodrigues, Godwin, & George, 2023; Han, 2021; Klein & Martinez, 2022; Londoño & Maya, 2023; Chen, Razzaq, Qing, & Cao, 2021; Lu, Liu, Tao, & Ye, 2021). Several studies have found that Anthropomorphism can lead to increased purchase decisions and purchase intentions (Rodrigues et al., 2023; Han, 2021). Consumers tend to feel more involved and connected to anthropomorphic objects, which can influence their satisfaction and buying behavior (Klein & Martinez, 2022; Chen et al., 2021). Cute brand anthropomorphic imagery can play a role in purchasing eco-friendly products, generating goodwill beliefs larger brands and higher willingness to buy & Ye, 2021). Overall, anthropomorphism can be a powerful tool for marketers and businesses looking to influence consumer behavior and purchasing decisions. By creating anthropomorphic images or cues that consumers can relate to and perceive, businesses can increase engagement, satisfaction, and purchase decision

There are some negative effects of anthropomorphism on buying decision. One study found that the negative impact of anthropomorphism on healthcare product evaluation is lowered perceived product efficacy (Chang, Lee, Lee, & Wang, 2023). Research by van Esch et al., (2019), and Han (2021) found that anthropomorphism has a positive effect on purchasing decisions. Another study found that the effect of anthropomorphism decreases when consumers are familiar with the robot's behavior and can effectively predict the

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robot's actions (Cheng, 2022). Additionally, anthropomorphism can have adverse effects on the welfare of companion animals by attributing human characteristics, intentions, and motivation. However, these negative effects appear to be unrelated and based on separate psychological pathways from the positive effects of anthropomorphism (Klein & Martinez, 2022).

Augmented reality, or AR, is revolutionizing e-commerce by letting users preview products or try services in their environment before buying. AR can help bridge the gap between in-store and online purchasing by making it easier to depict merchandise and providing customers with additional product information. AR can be used in e-commerce such as Preview products (Owens, 2021), Boost customer engagement, Increase customer confidence, Improve customer experience, Enhance product visualization and Reduce product returns. AR technology is helping e-commerce companies improve customer experiences, boost sales, and reduce refunds. Stimulation and helping's pleasure. Anthropomorphism and AR will help internet shops sell their items in the digital age. Quattelbaum, Breckenfelder, Voigt, & Maas, (2022) found that interactive AR apps can aid buying decisions. According to van Esch et al., (2019), AR improves buying decisions.

2. LITERATURE REVIEW
2.1. Anthropomorphism

Anthropomorphism drives this investigation. The tendency to see human-like shapes in the environment and the process of inductive inference, where human characteristics, rational thought, and conscious feeling are attributed to abstract concepts, brands, natural and supernatural phenomena, material states, or objects (Gray, Gray, & Wegner, 2014; Waytz, Heafner, & Epley, 2014; Złotowski, Proudfoot, Yogeeswaran, & Bartneck, 2015) are examples. 'The accessibility and applicability of anthropocentric knowledge (elicited agent knowledge), the motivation to explain and understand the behavior of other agents (effecting motivation), and the desire for social contact and affiliation (sociality motivation)' were crucial factors in the tendency to anthropomorphize, according to Epley, Waytz, & Cacioppo (2007). Marketers purposefully humanize companies and convince consumers to see the human in the non-human (Aggarwal & McGill, 2007). Brands may have souls (McGill, 1998), genetic codes (Aaker, 1997), or psychological traits (Gillmore, 1919).

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2.2. Augmented Reality (AR)

Augmented Reality is a real-time projection of two- or three-dimensional artificial or virtual objects into the real world. Marker-based tracking and markerless augmented Reality are being developed. Marker Based Tracking is an AR method for displaying imagined objects using tags. Markerless Augmented Reality uses GPS, gestures, and facial tracking to say virtual things. According to Rauschnabel, Rauschnabel, Felix, & Hinsch (2019) Augmented Reality Marketing integrates digital information or objects into the subject's perception of the physical world, usually in conjunction with other media, to expose, articulate, or demonstrate consumer benefits for organizational objectives.

2.3. Purchase Decision

The purchase decision is the process by which consumers identify problems, obtain information about specific products or brands, and evaluate these alternatives to make buying decisions (Tjiptono, 2000).. When consumers make purchases, purchasing decisions are stages in the purchasing decision process (Kotler & Lane Keller, 2009). *Decision-making* is a personal activity directly associated with receiving and utilizing the provided products. The purchasing decision is the buyer's accumulation of several decisions (Handoko & Dharmmesta, 2000). The purchasing decision is a general decision involving multiple options. The decision relates to brand, timing, and distribution (Schiffman & Kanuk, 2010). The initial phase of the purchasing decision-making procedure is identifying a problem that can be resolved by purchasing multiple products. After consumers purchase and use a product or service from a company and discover that it has added Value, they are influenced by factors influencing their purchasing decisions. There is a visceral connection between producers and consumers. Purchasing choices also have several additional factors to consider: When consumers purchase a product while experiencing positive emotions, the product's emotional Value will increase. Social Value consists of the assumptions consumers make when purchasing a product, whether positive or negative. Quality value refers to the advantages obtained through short- and long-term cost savings after purchasing a product. Functional Value refers to the functionality of a product after it is purchased, which can provide usability.

3.   RESEARCH METHOD

This type of research employs descriptive quantitative research, founded on the philosophy of positivism, to test the hypotheses, sample, and population (Sugiyono, 2018). Data were collected predominantly through a purposive sampling technique in which the sample was determined based on several specific factors (Sugiyono, 2018). Using the Unknown Populations formula with a 95% confidence level, the required number of respondents is 96.4, rounded to 100.

Google Forms is used to create a questionnaire for data collection. In addition, the method of measurement employs the Likert scale. Then process, the questionnaire using SPSS 25 and the Validity Test, the Reliability Test, the F Test, the Determination Test (R2), and the T-Test.

4.   RESULT

4.1   Validity Test

Table 1 shows the results of verifying the validity of all dependent and independent variables: count > portable = 0.1946, where n = 100 and the real value is 0.05. All questionnaire items from these variables are legitimate.

Table 1. Validity Test Results

No. Items	R Count	R Table	Description
X1.1	0,818	0,1946	Valid
X1.2	0,847	0,1946	Valid
X1.3	0,821	0,1946	Valid
X1.4	0,637	0,1946	Valid
X2.1	0,869	0,1946	Valid
X2.2	0,909	0,1946	Valid
X2.3	0,868	0,1946	Valid
X2.4	0,820	0,1946	Valid
Y1.1	0,745	0,1946	Valid
Y1.2	0,898	0,1946	Valid
Y1.3	0,836	0,1946	Valid
Y1.4	0,805	0,1946	Valid

4.2 Reliability Test

The values of all variables are more significant than 0.60, as shown in Table 2. Consequently, it can be concluded that all variables possess reliability.

Table 2. Reliability Test Results

No. Items	Cronbach Alpha	Alpha Value	Description
X1	0,790	0,60	Reliable
X2	0,888	0,60	Reliable
Y	0,838	0,60	Reliable

4.3 F Test

Table 3 presents the F-test findings, which reveal that Anthropomorphism (X1) and Augmented Reality (X2) have a significant effect on Purchase Decision (Y) simultaneously.

Table 3. F Test Results

ANOVAª

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	496,074	2	248,037	62,846	,000ᵇ
	Residual	382,836	97	3,947		
	Total	878,910	99			

a. Dependent Variable: Purchase Decision

b. Predictors: (Constant), Augmented Reality, Anthropomorphism

4.4 Determination Test (R²)

The value of R = 0.75 in Table 4 indicates that the correlation between these variables is strong. In addition, R2 = 0.564, which can be interpreted as the independent variables Anthropomorphism (X1) and Augmented Reality (X2) being able to explain and correlate with the dependent variable Purchase Decision (Y) by 75.1%, indicates that the independent variables Anthropomorphism (X1) and Augmented Reality (X2) explain and correlate with

the dependent variable Purchase Decision (Y) by 75. The remaining 24.9% is influenced by variables not examined in this study.

Table 4. Determination Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,751[a]	,564	,555	1,98665

a. Predictors: (Constant), Augmented Reality, Anthropomorphism

b. Dependent Variable: Purchase Decision

4.5   T Test

Table 5. T Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,378	1,133		2,099	,038
	Anthropomorphism	,410	,115	,365	3,568	,001
	Augmented Reality	,441	,103	,437	4,278	,000

a. Dependent Variable: Purchase Decision

Source : SPPS 25, 2023

Anthropomorphism favorably and significantly affects purchasing decisions, according to the test results. T Test's absolute value is 0.001, less than 0.05, and its positive regression coefficient is 0.365. Augmented Reality influences purchasing decisions positively. T Test's absolute value is 0.000, less than 0.05, and its positive regression coefficient is 0.437.

5.   CONCLUSİON

The test results indicate that anthropomorphism influences purchasing decisions; the sig table reveals that this influence is 0.000 0.05 with a significance level of 0.05. According to these findings, anthropomorphism plays a role in the emergence of a person's purchasing

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decision on Shopee. This study is consistent van Esch et al., (2019), and Han (2021) findings that anthropomorphism positively influences purchasing decisions. Similarly, the results of Augmented Reality indicate, based on the calculation, that Augmented Reality affects Buying Decisions with a sig table value of 0.000 0.05 and a significance level of 0.05. This study is identical to previous work by van Esch et al., (2019). Purchasing decisions will undoubtedly be influenced positively by augmented reality assistance that simplifies consumer selection and transactional processes. In this digital age, anthropomorphism and augmented reality (AR) will help online retailers advertise their products. Research by Quattelbaum, Breckenfelder, Voigt, & Maas, (2022) demonstrated that augmented reality (AR) applications as interactive systems could provide valuable assistance during the purchasing decision-making process.

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