

# The Influence of Chatbots and Augmented Reality on Wardah Beauty's Purchase Intention

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Abstract: The latest technological developments in the marketing 5.0 era have brought many changes in all environments, including the cosmetic industry. The application of new technology in product marketing is expected to be able to provide services that can increase customer Purchase Intention. This study aims to analyze the effect of Chatbot and Augmented Reality features on Purchase Intention of Wardah Beauty products. The research method used is a method with a quantitative approach used to examine certain populations or samples, namely consumers who use Wardah Beauty products. Sampling was done by non-probabilistic sampling method with the number of female respondents as many as 85 people and the data used was primary data in the form of a questionnaire. The data analysis method used is multiple regression analysis. The results of this study indicate that (1) Chatbot has a positive and significant effect on Purchase Intention in Wardah Beauty products. (2) Augmented Reality has a positive and significant effect on Purchase Intention in Wardah Beauty products. purchasing Wardah Beauty products.

## 1 INTRODUCTION

The entry of the marketing 5.0 era and the development of information technology are widely used by various industrial sectors. Marketing 5.0, according to Kotler et al (2021), is the application of technology that can imitate humans to create, communicate, provide services, and increase value along the customer journey. Digital technology in the development of marketing 5.0 should provide the right solution and be considered relevant to the needs of today's consumers.

Artificial intelligence has been developed over the years to replicate human cognitive abilities, specifically to learn from unstructured consumer data and find insights that marketers might find useful. When combined with other enabling technologies, AI can also be used to deliver the right offers to the right customers. The disappearance of the barriers of space and time allows consumers to shop anytime and anywhere. This is a challenge for companies to serve consumers every time they make transactions. With technology constantly evolving, 24/7

customer service can be maximized with Chatbot technology.

The presence of Chatbots is none other than the development of artificial intelligence (AI) technology. Chatbots are becoming increasingly booming because they can replace humans to perform certain tasks in the provision of services in many sectors, especially in the field of e-commerce (Park et al., 2021).

Chatbots are often the first services a business consumer interacts with. Many customers must first interact with the AI Chatbot before engaging in any buying behavior. Only when a customer encounters a problem that the Chatbot can't solve does he or she turn to human customer service.

Chatbots are programs that can simulate human conversations via voice commands or text commands and act as virtual assistants for users (Luo et al., 2019, p.1). Using a Chatbot offers advantages in terms of operational cost savings, service efficiency, and a more positive user experience. Many businesses leverage Chatbots in their efforts to provide instant response and 24/7 support to consumers (Chen et al., 2021; Cheng et al., 2021).

From a service provider's point of view, Chatbots address many of the challenges that services face with humans. For example, Chatbots can handle multiple consumer requests simultaneously (Cheng et al., 2021), while humans can usually only respond to one consumer request at a time. In addition, because Chatbots are not frustrated, bored, or easily tired like humans, they are made to communicate and serve customers in a friendly manner (Cheng et al., 2021; Luo et al., 2019). In general, Chatbots are very promising in providing fast, convenient, and friendly service to consumers.

However, the researchers also found that consumer interest in receiving and using Chatbots was relatively low (Ashfaq et al., 2020), with 87% of consumers preferring human agents over Chatbots to interact (Pres, 2019). This happens because Chatbot responses are often not in line with consumer expectations because their needs or desires are often ignored. Despite the relatively low level of consumer acceptance of Chatbots, marketers are still fascinated by AI-enabled technologies (Schanke et al., 2021). This has fueled the argument that the popularity of Chatbot development is due to the drive to keep up with technology rather than market demand (Nordheim et al., 2019). Artificial intelligence (AI) technology is also developing Augmented Reality (AR) capabilities. In AR, Interactive digital content is superimposed on the user's view of the real world environment. (Kotler, In an online shopping environment, consumers are unable to touch, feel or try products (Jiang and Benbasat, 2007; Li, Daugherty, and Biocca, 2002). Therefore, for online sellers, it is very important to create a satisfactory alternative to direct product experience by offering consumers specifications, features and information about product performance before purchasing (Klein, 2003).

The application of AR technology gives the impression that consumers feel the sensation of virtual shopping as if it were real. According to ThinkMobiles, with the advent of AR technology, 63% of consumers trust AR implementation by providing a different shopping experience, data shows that 35% of potential consumers are likely to make a purchase more often if they can try before buying.

The amount of public interest in the use of AR technology certainly cannot be separated from the various advantages it offers (Ozturkcan, 2020). AR is considered capable of playing a role in

providing business benefits because it can affect consumer interest in buying products. Through its digital technology, AR can provide insight to customers with a different experience when they recognize a product. In addition, AR is considered to be able to support consumer communication with business people because through this technology consumers feel more involved and want to keep trying. As content that is supported by digital media, AR has advantages in terms of media richness because its content can provide more complete information in various forms (Bubaš, 2001). Smart retail applications and mobile AR have fundamentally changed the retail environment and significantly improved consumers' quality of life (Nikashemi et al., 2021). The use of AI has also attracted the interest of one of the largest cosmetic companies in Indonesia, namely Wardah. Beauty. On the site, you can find Chatbot and AR features that can help consumers choose the products they want. Not only can they try cosmetics virtually, but consumers can also inquire about their skin problems virtually with the SkinLab function. You can find Chatbot and AR features that can help consumers choose the products they want. Not only can they try cosmetics virtually, but consumers can also inquire about their skin problems virtually with the SkinLab function. You can find Chatbot and AR features that can help consumers choose the products they want. Not only can they try cosmetics virtually, but consumers can also inquire about their skin problems virtually with the SkinLab function. With these various features, consumers will find it easier to find products that suit their needs, be it cosmetics or skin care. This supports consumer interest in buying Wardah Beauty products. Consumers can try products before buying, such as lipsticks, foundations, and powders that meet consumer needs. This technology can help businesses minimize the disappointment that consumers often feel about products not performing as expected.

## 2 LITERATURE REVIEW

### 2.1 The Role of Chatbots in Purchase Intention

AI Chatbots can be used to convince consumers of their interest in buying. The customer's interest

in buying is a major problem in marketing management, because it affects the customer's final decision. McLean and Osei-Frimpong (2019), for example, studied live chat and demonstrated that the variables influencing its use depend on the context to initiate chat conversations, i.e. to support search/browse or support decision-making processes. The main goal is to make customers not only chat and use the service, but ultimately buy the product or service, improving their customer experience.

Chung et al. (2020) studied the effect of Chatbot services in the context of luxury retail on customer satisfaction and showed that digital service support tools can help build positive relationships with customers, even when e-service agents do not fully communicate with customers. For this reason, Chatbots can be seen as a substitute for customer service agent communication that can close the sale through appropriate communication based on five quality dimensions: interaction, entertainment, trends, personalization, and problem solving (Chung et al., 2020). Compared to human customer service, some of the capabilities of AI Chatbots go beyond humans, such as self-learning, accurate personal recommendations, always online, ready to respond to customer needs at any time, and more (Deloitte, 2018b).

While some AI Chatbot capabilities are not as good as humans, such as the inability to have deep emotional interactions with customers and some problems that are difficult to solve, they still require human customer service (Forbes, 2017). Sands et al (2020) show that interactions with Chatbots, if personalized (using certain narrative cues based on entertainment), can optimize emotions and relationships, and thereby gain customer interest and satisfaction.

## 2.2 The Role of Augmented Reality in Purchase Intention

Augmented Reality (AR) has become an effective interactive technology for providing visual product information (Jung, Chung & Leue, 2015; Vonkeman, Verhagen & Van Dolen, 2017). The concept of AR is to display 3D information on virtual products in real time in a consumer market environment (Javornik, 2016). AR extends from 3D technology, which provides a 360-degree view of virtual products. However, the distinguishing difference between 3D and AR is that AR integrates virtual products into the consumer's

physical environment (Olsson, Lagerstam, Kärkkäinen, and Väänänen-Vainio-Mattila, 2013). With the increasing importance of contextual information, AR makes it easier for consumers to visually inspect products in their physical space (Vonkeman et al., 2017). Recently,

Augmented Reality is used as a direct view of the real world by adding information virtually. AR development is not only for entertainment purposes, but can be used by marketers as an increase in Purchase Intention. In AR applications there are three features that need to be considered. First, merging the real world with the virtual world or interactivity.

Second, display images with clarity and detail or clarity. Third, the information provided is different and specific or new.

Previous studies have suggested that customers perceive more risk with online or mobile purchases compared to offline purchases (Schröder & Zaharia, 2008). This is because consumers find it difficult to evaluate products accurately when shopping online or on mobile devices (Verhagen & van Dolen, 2011). Since customers cannot physically experience (e.g., touch and try) the product through online and mobile channels, they cannot rely on product performance. According to Steuer (1992), the presentation of high-quality products helps reduce risk by creating a sense of non-mediation, which reduces the barrier between the consumer and the product. When customers feel that the product is physically present with them, negative impressions can be reduced. As Augmented Reality experiences provide richer product presentations with high levels of telepresence, consumers experiencing AR may find it easier to make purchasing decisions than consumers without AR (Hilken et al., 2018; Javornik, 2016). In an online/mobile shopping environment, AR technology increases consumer satisfaction and consequently increases Purchase Intention (Dako, 2017).

## 3 RESEARCH METHODS

This type of research is explanatory research with a quantitative approach. The selection of respondents was carried out using a sampling technique, namely convenience sampling and finalized sampling of more than 85 female respondents with a vulnerable age of 21-35 years because this generation grew up in the internet era

and has more contact through social media network. average for what is considered a very tech-savvy generation.

This research was conducted online, namely by distributing questionnaires to the intended respondents using Google forms. Respondents in this study include users of Wardah Beauty products seen on social media who bookmark or like content on Wardah Beauty's accounts, as well as users who provide comments and reviews on Wardah Beauty's posts. A sample of 85 respondents was obtained and analyzed using multiple linear regression analysis.

Table 1: Characteristics of interviewees

Age	Amount	Percentage
20-25 years	17	20
25-30 years	50	58.8
> 31 years old	18	21.17
Education	Amount	Percentage
Senior high school	10	11.76
Bachelor Degree	50	58.82
Master Degree	25	29.41
Profession	Amount	Percentage
Student	39	45.88
Employees	20	23.52
Government Employees	26	30.58

Based on Table 1, it can be seen that the majority of respondents aged 25 to 30 years were 58.8 percent, then those aged over 31 years were 21.17 percent, and those aged 20 to 25 years were 21.17 percent and 20 percent.

In the education category, the majority of respondents' education was at the tertiary level by 58.82 percent, at the master's level 29.41 percent and at the high school level by 11.76 percent.

In the work category the majority of respondents are students up to 45.88%

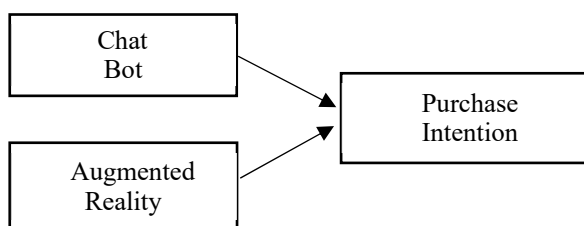


Figure 1 Conceptual framework

H1: The influence of Chatbots on Purchase Intention in Wardah Beauty products

H2: The influence of Augmented Reality on Purchase Intention in Wardah Beauty products.

## 4 RESULTS AND DISCUSSION

This study uses multiple linear analysis to see the effect of Chatbot and Augmented Reality on Purchase Intention. The value of R2 is used to measure the level of variation of changes in the independent variable to the dependent variable. The R2 value of this study can be seen in the Table below:

Table 2: R Square

Purchase Intention	R Square	Adjusted R Square
	0.534	0.523

Based on Table 2, it can be seen that the R-squared value of 0.534 means 53.4 percent of the variable Purchase Intention on the Wardah Beauty website can be explained by the Chatbot and Augmented Reality variables. While the remaining 46.6 percent can be explained by other factors not examined in this study.

Table 3: Anova

Purchase Intention	F	Sig
	47.015	0.000

Based on Table 3, it is known that the number of samples (n) is 85 respondents, and the number of parameters (k) is 3, so that it is obtained  $df1 = 3 - 1 = 2$ ;  $df2 = n - k = 85 - 3 = 82$ , then  $en = 0.05$ , the value of  $F_{count} (47.015) > F_{Table} (3.107)$  and significance  $(0.000) < (0.05)$ . This means that the Chatbot and Augmented Reality variables simultaneously have a significant effect on consumer Purchase Intention in Wardah Beauty products.

Table 4: T-statistics and P-value

	T Statistic	P Value
Chatbot → PI	3.761	0.000
Augmented Reality → PI	3.937	0.000

With (n) = 85, the number of parameters (k) = 3,  $df = (n - k) = 85 - 3 = 82$  so that with an error rate = 0.05, t Table = 1.989 is obtained.

Augmented Reality regression coefficient value ( $\beta_2$ ) = 0.364 > 0 with tcount (3.937) > tTable (1.989). This shows that the Augmented Reality variable has a positive and significant effect on Purchase Intention, which means that the higher the Augmented Reality suitability, the Purchase Intention will increase significantly and vice versa.

#### 4.1 Effect of Chabot on Purchase Intention

The value of the Chatbot regression coefficient ( $\beta_1$ ) = 0.536 > 0, with tcount (3.761) > tTable (1.989) and significance (0.00) < (0.05). This shows that the Chatbot variable has a positive and significant effect on Purchase Intention, which means that the better the Chatbot, the Purchase Intention will increase significantly and vice versa.

As Presti et al (2021) state that Chatbots play a role in the perception of hedonistic and utilitarian product value and can be a relevant factor in customer decision making. This is in line with claims that AI Chatbots can be used to convince consumers of their intention to buy (Chung et al. 2020)

Experiments have shown that Chatbot interactions can contribute to the Purchase Intention process. (Presti et al 2021). In a digital environment, conversations in virtual spaces (Chatbots) create an experiential environment that can act as a stimulus for the buying process. Purchase Intention can be obtained through interactive activities and the ability to know how to provide useful information to potential buyers.

#### 4.2 Effect of Augmented Reality on Purchase Intention

The results of this study indicate that the Augmented Reality variable on Purchase Intention is 0.00 less than 0.05 which means that there is a positive and significant effect of Augmented Reality on Purchase Intention. Because AR experiences provide richer product presentations with high levels of telepresence, consumers experiencing AR may find it easier to make purchasing decisions than consumers without AR (Hilken et al., 2018; Javornik, 2016). This is in line with Dako's claim (2017; Whang (2021) that AR technology can further increase consumer satisfaction so that it will affect Purchase Intention.

## 5 CONCLUSIONS

This study examines the effect of implementing Chatbot and Augmented Reality features to create Purchase Intention in customers. The development of Chatbot and Augmented Reality technology has a positive and significant impact on consumer Purchase Intention on the Wardah Beauty website. This research focuses on the beauty industry which is starting to use technology in selling its products. In practice, this research can help companies in similar industries and other industries use technology in their marketing processes so that they can be different and can create their own value.

Through the application of this AR feature, it can help sellers eliminate consumer doubts when shopping online because it can provide a real picture of a product through a virtual experience with image clarity and time efficiency.

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