THE EFFECT OF THE USE OF AUGMENTED REALITY (AR) ON PURCHASE DECISION OF L'OREAL COSMETIC PRODUCTS AT TOKOPEDIA BEAUTY

Imron Maulana[1], Ajen Campakararang[2], Firstyo Dewo Wicaksono[3]
[1,2,3] LSPR Institute of Communication & Business, Indonesia
Email: 23172390027@lspr.edu, 23172390005@lspr.edu,
23172390045@lspr.edu

ABSTRACT

This study investigates the influence of Augmented Reality (AR) technology on consumer purchase decisions regarding L'Oréal cosmetic products within the context of Tokopedia Beauty, an e-commerce platform. With the increasing integration of AR in online shopping experiences, understanding its effect on consumer behavior is imperative for businesses and marketers. Through a quantitative approach, this research analyzes consumer perceptions and attitudes towards AR-enabled product visualization and its impact on purchase decisions. Data is collected through surveys distributed among Tokopedia Beauty users, assessing their experiences with AR features and subsequent purchasing behavior. The findings elucidate the significant role of AR in enhancing consumer engagement and confidence in product selection, ultimately influencing purchase decisions positively. The implications of these findings offer valuable insights for both practitioners and researchers in leveraging AR technology to optimize online cosmetic shopping experiences and drive sales.

KEYWORDS	*Augmented Reality (Ar), L'oreal Cosmetic Products, Tokopedia Beauty*

INTRODUCTION

Communication is a concrete process of relationships between humans. Because in this process there are two aspects of urgency that cannot be overlooked, namely stimulus and response (Hovland, 2005). When someone wants to express something, they certainly have a specific goal, because an effective communication process must be accompanied by a clear goal, so that the message conveyed is more focused. In the communication process, interactions will occur which will have an impact on the response of the communicant. This reciprocal or reciprocal

relationship is an important point in the process of human relations. In this case, communication also plays an urgent role in marketing activities. (Kotler and Keller, 2016) in their book reveals that communication sources can be seen from the company's intensity in distributing information through marketing organizations, advertising, public relations, online marketing, and so on. The target of this communication is of course the community through efforts to influence, persuade and encourage individuals to do certain things with pre-planned goals.

The marketing communication process can be carried out in various forms, both physically, namely between sellers and buyers meeting face to face, or non-physically, in this case sellers and buyers emphasize digital platforms to carry out interactions or transactions. According to (Chaffey & Mayer, 2009) digital marketing is a marketing activity that has a wider scope and target market. This is due to the reference to digital media, such as websites and email, but also includes how it relates to managing customer data, as well as forms of integration of the influence of the internet and traditional media in an effort to provide services to customers . The diversity of communication processes has implications for individual and group patterns in consuming goods or services or what is often called the shopping phenomenon. This shows that the influence of communication is very large in the marketing field, especially in the aspect of attracting the attention of individuals in carrying out transactions and serving as a marketing target for certain companies or organizations. Communication can be done with certain types of media, be it traditional media, such as radio, magazines, pamphlets, and so on. The latest media really implements the use of technology in the process of distributing information, such as social networks and social media, all of which are connected digitally. These various media certainly have implications for the distribution of communication that is increasingly massive and widespread. In the development of modernization, the communication process is increasingly intensive using digital media, with the aim of distributing messages more widely and effectively. According to Suswanto (in the article Ade Faulina, 2021) explains that digital platforms are very focused on developing message strategies in their marketing communication process. They implement three aspects of an idea or concept. First, the rational idea, namely considering actual development trends that occur in society. Second, the emotional idea, this focuses on updating application features, one of which in this context is AR (Augmented Reality). Third, moral ideas, this aspect focuses on social activities carried out by related e-commerce. One of the goals is to attract customer attention according to a certain context.

Digital communication media is experiencing very rapid development. Technology that continues to evolve and the way humans use it has changed is not only how to access it, but how to interact and communicate with each other on a global and universal scale. This also changes the way someone chooses and buys certain products and services. Every individual seems to welcome digital technology to simply communicate in various ways that could be said to have been unimaginable a few years ago. Basically, the correlation of technology with changes in behavior has been explained by Canadian philosopher and communications expert, Marshall McLuhan, since 1962 in a book entitled *The Gutenberg Galaxy: The Making of Typographic Man.* According to his perspective, various technological innovations

not only influence the way humans communicate, but also shape their culture and life, including expectations and needs in the process of buying and selling activities.

Digital evolution has an impact on various aspects of human life, including a person's lifestyle in carrying out their role as a consumer. (Keller, 2009) explains that marketing activities have shifted from traditional methods to digital in recent years. Of course, before the development of digital technology, every individual when they wanted to make transactions or buy goods and services would tend to do so conventionally. However, nowadays everything is made easier for someone, including making it easier by purchasing goods and services online . Someone doesn't need to go to a particular shop to buy goods, but simply orders online, then the goods will be sent by the relevant party. Consumer behavior in the past and today has undergone significant changes. As time goes by, the digital era will continue to change social trends, especially influencing consumer behavior and demand. Changes in consumer behavior can be represented by symptoms that will always grow and even be difficult to recognize, but it is a must for marketers to be aware of and adapt services according to customer desires.

The Internet has significantly increased consumer access to information according to their needs, especially when someone buys a product for the first time or even replaces it. Simultaneously, the internet or digitalization can enable marketers to collect behavioral data about consumers, so that the output they can observe and analyze consumer behavior in purchasing goods and services. In this case, before the digitalization era, marketers collected behavioral data by relying specifically on buyer reports and what consumers wanted. This is what marketers focus on rather than actual purchasing patterns from a consumer perspective. For example, when individuals want to buy a motorbike "online" with a choice of colors, features and other advantages that most attract their attention. Apart from that, they can also find out various combinations of motorbike features and attributes and add models with the configuration they want. (Kotler 2002) in Ade Faulina's article explains that apart from providing various benefits for marketers, purchasing services online can also provide many benefits for online customers. In this context, comfort is one of the important aspects provided to customers. The impact is that the transaction process becomes easier and customers can check prices, compare several brands simultaneously, and consumers can order products from any location, without worrying about distance.
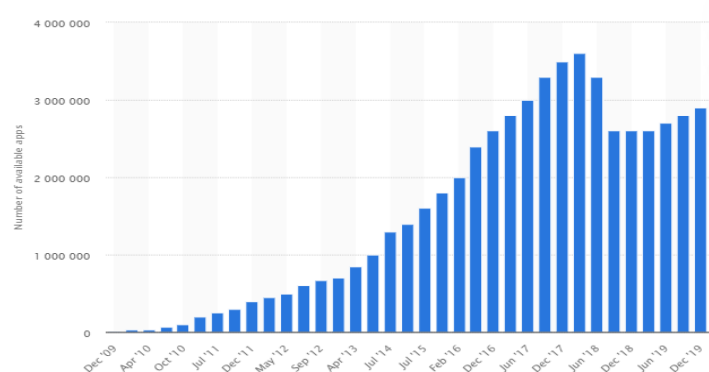
(Source: Statista - Number of Apps in the App Store | iOS)

Based on the data above, with the rapid and massive development of technology, especially with the concept of mobile first technology, in the last 5 years the number of users for each application has experienced a rapid increase (Rian, 2023). Apart from that, the shift in consumer behavior due to the presence of technology and digitalization raises a question, namely how and why technology changes the way consumers behave and the most urgent is what approach must be implemented in understanding consumer behavior, so that marketers can adapt to the era of digitalization. In this context, theoretical studies are used to describe conventional consumer behavior and relate it to changes that have occurred after the emergence of the digitalization era.

In this regard, one of the technologies used in the current digitalization era by industry is Augmented Reality, according to Shannon (in his article, 2019) Augmented Reality (AR) is a technological integration between something that is not real or is often called (virtual). Apart from that, it relates digital content created by computer devices to the real world in real-time. Of course, this form of integration occurs using the help of technology. One of the interesting things about Augmented Reality is that it can be seen in two dimensions or even three dimensions at once using certain special devices. Concretely, this technology can improve customers' views and interactions with the real world. So what is the correlation with the world of marketing? Based on previous literature studies, it is stated that this technology can be implemented into marketing activities, with the output being to improve the way customers view a product, customer experience, and most urgently, it can increase the value of a particular brand.

In this context, Augmented Reality Marketing will engage customers by presenting a visual demonstration and emphasizing superior emotional closeness when compared with traditional advertising. Currently, the implementation of augmented reality is very diverse, from the education sector to the digital industry sector. In this context, it is one of the largest e-commerce in Indonesia, namely Tokopedia which uses a marketplace system in developing its business. Currently, the form of implementation of Augmented Reality that is intensively used is in beauty products, one of which is made up or what is often called "Utilizing Augmented Reality for Tokopedia Beauty" (Tokopedia Website, 2022). This can be seen when customers can see a demonstration of products and what is most interesting is that customers can try the product virtually before making a purchase decision.

Figure 1. Visual Augmented Reality Demonstration

In the research title "The Influence of Using Augmented Reality (AR) on Purchase Decisions for L'Oreal Cosmetic Products at Tokopedia Beauty," as studied in the author's previous article, the main context of the research is the shift in consumer behavior in the digital context and the influence of the use of Augmented Reality technology (AR) on purchasing decisions for L'Oreal cosmetic products. This phenomenon can occur in line with the era of increasingly massive digitalization, especially in the development of information technology and the increasing trend of e- commerce. In the digital era, consumers have unlimited, easier and faster access to explore and buy various products of their interest, especially cosmetics through e- commerce platforms such as Tokopedia Beauty.

Concretely, the main concept of this research is digital consumer behavior, including various factors that influence it, such as preferences, perceptions and purchasing decisions in the digital environment. These factors are an individual process before carrying out a purcahase decision. The focus is on the use and implementation of AR technology as a medium that influences the virtual interaction process of consumers with cosmetic products. AR allows every consumer to try products virtually, providing a more comprehensive and interactive experience before making a purchase. Therefore, this concept explains how interactions between consumers and AR technology can shape attitudes, perceptions and purchasing intentions.

In general, this research analyzes the extent to which the intensity of AR use can influence consumer purchasing decisions regarding L'Oreal cosmetic products. The variables taken into account include the quality of the virtual experience, consumer satisfaction, and the impact on positive attitudes towards the brand. In addition, psychological and social aspects can also be explored, such as the level of consumer trust in AR technology and secondary environmental influences, such as peers in the purchasing decision making process.

Within this framework, research is directed at providing insight and in-depth knowledge about the role of AR technology in designing digital consumer experiences, as well as how this can be a key factor in forming a decision to purchase cosmetic products, especially on the Tokopedia Beauty platform. With this approach, this research seeks to understand the complex dynamics between technology, consumer behavior and purchasing decisions in the digital era.

Literature Review

In this research, the author focuses on the topic "Online Retail". (Max Komonov, 2020) in his article states that online retail business focuses on business processes where customers have many alternative choices, especially in searching, selecting and purchasing products and services via the internet.

1. First Literature

Researcher Name	Research Title
Mindi Permata, Bayu Kurniawan, Noni Setyorini (2023)	The Influence of Brand Awareness on Purchase Decisions on the Tokopedia Marketplace

This research uses quantitative methods with data analysis techniques, namely using the AMOS 24 program. Hypothesis testing uses the AMOS SEM

approach. The results of this research show that partially, the Brand Awareness variable has a positive influence on purchasing decisions in the marketplace, Tokopedia, for PT employees. Pan Pacific Jakarta Semarang Branch. In this context, by implementing the AMOS Structural Equation Modeling (SEM) approach in hypothesis testing, these findings indicate that the level (Brand Awareness) contributes significantly to purchasing decisions on the Tokopedia e-commerce platform.

Although this research comprehensively investigates the influence of Brand Awareness on purchasing decisions in the Tokopedia marketplace, there are several aspects that are still gaps in previous research literature. First, this research does not explore in depth the role of various other factors that might moderate the correlation between Brand Awareness and purchasing decisions, such as customer satisfaction, brand trust, and so on. Second, although this research states that there was a decrease in visits to Tokopedia in a certain period, it does not explain the cause, so further analysis of the various factors that influence this fluctuation needs to be researched more comprehensively. By considering these aspects, further research can provide a more comprehensive understanding of the complexity of the correlation between Brand Awareness and purchasing decisions in the e-commerce context, especially in Indonesia.

In this research, there are significant contributions which in fact can support further research, especially in the context of e-commerce in Indonesia. This research explores the influence of Brand Awareness on purchasing decisions in the Tokopedia marketplace, by providing a comprehensive understanding of the dynamics of this correlation. The new thing that has emerged is the emphasis on marketing strategy as an aspect of urgency in increasing company income, especially increasing the level of consumer purchasing decisions. In this context, references to previous theories, such as consumer behavior theory and marketing mix, remain relevant and can be a basis for conducting further research. Of course, by focusing on various other factors that moderate or mediate the relationship between Brand Awareness and purchasing decisions, future research can expand knowledge and insight regarding the complexity of this phenomenon. Therefore, further research can utilize these findings as a basis for exploring more specific aspects and deepening understanding of the dynamics of the e- commerce market, especially in Indonesia.

2. Second Literature

Researcher Name	Research Title
Harjuno Yumatri Utomo, and Sugeng Purwanto	The Influence Of Social Media Marketing, Brand Image And Trust On Repeat Purchase on Bukalapak Marketplace

This research uses quantitative methods by implementing partial least squares (PLS) in the analysis of the results. The results of this research show that social media marketing, brand image and trust have a significant effect on repeat purchases at Bukalapak.

This research provides a new contribution in the marketing context. Although there has previously been research on various factors that influence repeat purchase decisions, this research highlights the role of Social Media Marketing as a dominant

marketing tool in the digital era. In addition, the integration of Brand Image and Trust as interrelated variables also becomes a more specific focus point, providing a comprehensive understanding of various key factors in influencing repeat purchase decisions on the marketplace platform. Therefore, future research could involve moderating variables or consider different market contexts to enrich understanding of this phenomenon.

Previous relevant theoretical references include digital marketing concepts and the influence of brand image on purchasing decisions. Of course, these theories can remain a basis for further research, help in describing the influence mechanisms of Social Media Marketing and Trust on Repeat Purchase, and provide a strong conceptual foundation. By integrating these elements, future research can further explore online market dynamics and increase understanding of the factors that influence consumers' repurchase decisions.

3. Third Literature

Researcher Name	Research Title
Shanon Lovendra (2021)	The Effect of Using Augmented Reality Marketing on Buying Behavior of Maybelline Official Shop Beauty Products on Shopee with Consumer Engagement as an Intervening Variable

This research uses quantitative methods. The analysis methods implemented are the Partial Least Square method and Path Analysis using secondary SPSS version 16. The results of this research show that the implementation of Augmented Reality Marketing has a significant influence on Consumer Engagement and Buying Behavior.

This research aims to determine the correlation between marketing implementation (AR) and Buying Behavior using Consumer Engagement as an intermediary.

This research provides a significant scientific contribution to the marketing literature on beauty products, especially through Augmented Reality (AR) on e-commerce platforms, especially at the Maybelline Official Shop on Shopee. Exploration of the relationship between AR Marketing, Consumer Engagement, and Buying Behavior is an innovative step. Previous research has not intensively described the impact of AR use on consumer engagement levels and its influence on purchasing behavior in the beauty industry. This research opens up opportunities to understand further the interaction mechanisms between AR, consumer involvement, and its impact on purchasing decisions. The findings show that Consumer Engagement acts as an intermediary variable between AR Marketing and Buying Behavior. Future research can further explore these variables and involve a more universal time frame. The aim is to understand the evolution of consumer behavior in a long-term context.

This research provides an important contribution to the development of further observations, especially the use of augmented reality (AR) in marketing beauty products on e-commerce platforms such as Shopee. The new findings in this research involve a special AR approach in the e-commerce industry, and a

comprehensive exploration of the role of consumer engagement as an intervening variable. Apart from that, the focus of this research is also on promotional strategies, such as the use of virtual discount codes and AR prizes, of course this has the aim of increasing consumer interest and purchases. In subsequent observations, relevant theoretical references include several urgency theories, namely consumer involvement, consumer behavior theory, and TAM theory to understand the acceptance of new technology from a consumer perspective. Apart from that, digital marketing and e-commerce theory are relevant for understanding the dynamics of online markets and implementing effective and comprehensive marketing strategies.

Research idea

Based on some of the literature above, the author has the idea to conduct research with the title "The Influence of Using AR (Augmented Reality) and Brand Image on Purchase Decisions for L'oreal Cosmetic Products on Tokopedia Beauty.

In this case, the author will use quantitative methods with multiple regression analysis, as well as online survey techniques as the main approach. This method will allow researchers to collect data from respondents who are consumers of L'Oréal beauty products on Tokopedia Beauty. Using questionnaires or online interviews can be an effective and efficient way to collect information data regarding user experiences with the Augmented Reality (AR) technology feature from Tokopedia Beauty, customer perspectives on the L'Oréal brand image, and how these factors will influence purchasing decisions. Statistical analysis such as multiple regression can be implemented to measure the extent to which variables such as AR use and brand image contribute to purchasing decisions.

In this context, the relevant theories to support this research are as follows:

First, the Theory of Consumer Purchasing Decisions (Theory of Decision Making) by Herbert Simon: This theory will help in understanding the factors that influence consumers in choosing beauty products, including the influence of AR use and brand image. This will focus on (need recognition), information search, evaluation of alternatives, purchase, and postpurchase behavior.

Second, Technology Acceptance Model (TAM) by Davis: This research will intensively prioritize technology adoption, namely the use of AR (Augmented Reality). TAM can help explain how consumers respond and accept Augmented Reality technology, especially in the context of purchasing products beauty.

Third, Brand Image Theory by Kotler: This theory will provide an analysis of how L'Oréal's brand image can influence consumer perceptions, and ultimately lead to purchasing decisions. Of course, this will be influenced by aspects of urgency, such as emotion, reputation, belief and impression.

By focusing on these theories, research can provide a comprehensive understanding of how the implementation of AR and L'Oréal's brand image has implications for consumer purchasing decisions on the Tokopedia Beauty platform. The integration of quantitative methods and theories can be used as a reference to provide in-depth knowledge, especially regarding the interaction process between variables in the context of beauty products, namely L'oreal.

The reason for choosing a quantitative method with multiple regression analysis in this research was based on the author's need and curiosity to measure a

number of data efficiently and objectively. Through survey techniques, such as questionnaires, research can collect various responses from a number of respondents who are actually customers of L'Oréal products on the Tokopedia Beauty platform. Based on previous research, multiple regression analysis will provide strong and credible statistical analysis, which can measure and understand the influence of various variables, namely in this context the use of Augmented Reality (AR) and brand image on purchasing decisions.

The reason for choosing in a theoretical context, namely the Technology Acceptance Model (TAM) theory, is relevant to the research topic, because the research focus is on the use of AR, which as we know is that Augmented Reality is a concrete form of innovation in technology, especially in this context, namely marketing. Universally, TAM can provide a comprehensive framework for understanding how customers receive and respond to new technology, such as AR, especially in the era of digitalization. This can provide knowledge about various factors that influence consumer acceptance of Augmented Reality technology in the context of purchasing L'Oreal beauty products. Meanwhile, the Theory of Decision Making and Brand Image Theory will provide a conceptual basis for understanding the L'Oreal brand image which influences consumer purchases. By integrating quantitative methods (multiple regression analysis) and these theories, this research plan can provide a holistic understanding of the dynamics between AR use, brand image, and consumer purchasing decisions, especially in the context of L'Oréal products on Tokopedia Beauty. This research plan will contribute to practical and academic understanding of how technology and brand image can influence digital consumer behavior, especially purchasing decisions.

This research aims to explore and analyze the impact of using Augmented Reality (AR) and brand image on purchasing decisions for L'Oréal cosmetic products on the Tokopedia Beauty e-commerce platform. By focusing on this phenomenon, this research aims to identify the extent to which the use of AR technology in online shopping experiences and consumers' perceptions of the L'Oréal brand image can influence their purchasing decisions. By using quantitative methods, such as online surveys with questionnaires, this research will collect data from consumers who actively shop at Tokopedia Beauty. Data analysis through statistical techniques, including regression, will be used to measure the influence of each variable on purchasing decisions. By embracing Technology Acceptance Model (TAM), Consumer Purchase Decision Theory, and Branding Theory, this research is expected to provide a deep understanding of the complexity of the interactions between AR use, brand image, and consumer purchasing behavior. It is hoped that the conclusions of this research will provide strategic insight to related parties, both in terms of online marketing and technology development to improve the shopping experience and consumer purchasing decisions on the Tokopedia Beauty platform.

RESEARCH METHOD

This study uses a quantitative approach by collecting data through questionnaires filled out by respondents. The data was converted into quantitative data using the Likert scale and analyzed statistically. The population of this study is L'Oreal cosmetics consumers in Tokopedia Beauty, with a sample of 100

respondents selected using the non-probability sampling method to get adequate representation. The data were analyzed using multiple linear regression techniques with SPSS software, which allowed for the identification of relationships between the variables studied in depth and accurately.

Analysis

The impact of augmented reality (AR) on consumers' decisions to buy L'Oreal cosmetic items on Tokopedia Beauty is being thoroughly investigated in this study using a quantitative research design. The utilization of a quantitative technique enables the impartial assessment and examination of AR's impact on customer behavior. Respondents completed a structured questionnaire that was used to gather data. The questionnaire was painstakingly created to evaluate different facets of augmented reality features and how they influence customer purchasing decisions. A Likert scale was used to quantify the responses, allowing for the transformation of subjective evaluations into numerical data appropriate for statistical analysis. Customers who have interacted with L'Oreal cosmetic products on Tokopedia Beauty are among the study's target demographic.

To obtain a representative sample, 100 respondents were selected using non-probability sampling techniques. This method was chosen to ensure a practical and feasible collection of data while aiming to capture a broad range of consumer experiences and perceptions. The collected data were processed and analyzed using multiple linear regression techniques with the aid of SPSS software. Multiple linear regression was employed to understand the relationships between several independent variables (various AR features) and the dependent variable (purchase decision). This technique allows for the identification of significant predictors and the quantification of their impact on the decision-making process.

RESULT AND DISCUSSION

Results of Analysis

      Classical Assumption Test

      a.   Normality Test

Sugiyono (2017) explained that normality testing is used to evaluate whether the variable being investigated has a distribution that matches the normal distribution. This is important because if the data of each variable does not follow the normal distribution, then hypothesis testing cannot use parametric statistical methods.

Table 1 Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		127
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	7.12455106
Most Extreme Differences	Absolute	.080
	Positive	.077

The Effect Of The Use Of Augmented Reality (Ar) On Purchase Decision Of L'oreal Cosmetic Products At Tokopedia Beauty

				Negative	-.080
Test Statistic					.080
Asymp. Sig. (2-tailed)^c					.054
a. Test distribution is Normal.					
b. Calculated from data.					
c. Lilliefors Significance Correction.					

In table 1 above, it shows that the probability value of 0.054 is greater than α (0.05), therefore the decision to accept H0 is obtained with the conclusion that the residual data is normally distributed.

b.   Linearity Test

According to Prayitno (2010), the linearity test has the purpose of determining whether the relationship between these variables is significantly linear or not. This linearity test is important as a condition before conducting a correlation analysis or linear regression in a study. According to Winarsunu (2006), the linearity test is a step that aims to assess whether the distribution of data processed in research has a linear nature or not.

Table 2 Linearity Test

ANOVA Table			Sum of Squares	df	Mean Square	F	Sig.
Y (Purchase Decision) * X (Augmented Reality)	Between Groups	(Combined)	7045.464	72	97.854	1.925	.006
		Linearity	3394.951	1	3394.951	66.782	.000
		Deviation from Linear-ity	3650.513	71	51.416	1.011	.487
	Within Groups		2745.150	54	50.836		
	Total		9790.614	126			

Table 2 of the linearity test above obtained a significance value of deviation from linearity of 0.487 greater than 0.05, therefore the decision to accept H0 was obtained with the conclusion that there is a linear relationship between the independent variable and the dependent variable.

Simple Linear Regression Analysis

Sugiyono (2017) explained that simple linear regression analysis is used to assess the influence or relationship that is linear between independent variables and certain dependent variables. In the context of this study, a simple linear regression equation is used to evaluate the degree of influence that Augmented Reality (X) has on Purchase Decision (Y).

Table 3 Simple Linear Regression Model

Coefficients^a			
	Unstandardized Coefficients		Standardized Coefficients
Model	B	Std. Error	Beta

1	(Constant)	12.284	2.734	
	X (Augmented Reality)	.127	.016	.589
a. Dependent Variable: Y (Purchase Decision)				

Based on the simple linear regression model above, it shows that an increase in one unit of augmented reality variables is able to reduce the purchase decision variable by 0.127.

Hypothesis Testing

Uji Simultan (Uji f)

The significance test was carried out with the aim of showing the significance of all independent variables simultaneously with the dependent variables. This test was carried out by looking at the f-stat of the model with the level of significance and the following conditions:

H0 : Independent variables simultaneously do not affect the dependent variables significantly

H1: Independent variables simultaneously affect the dependent variables significantly

H0 is rejected when a p-value < α occurs.

Table 4 Simultaneous Tests

ANOVAª						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3394.951	1	3394.951	66.353	.000[b]
	Residual	6395.663	125	51.165		
	Total	9790.614	126			
a. Dependent Variable: Y (Purchase Decision)						
b. Predictors: (Constant), X (Augmented Reality)						

Table 4 regarding the simultaneous test above shows that the probability value of F-statistics of 0.000 is less than α (0.05), therefore the decision to reject H0 is obtained with the conclusion that there is a significant simultaneous influence between the augmented reality variable on the purchase decision variable.

b. Partial Test (t-Test)

Compare the tested value with the level of significance to determine the acceptance or rejection of H0 with the following conditions:

If the significance value of the t test is > α, then H₀ is accepted and H1 is rejected. This means that there is no significant influence between independent variables on dependent variables.

If the significance value of the t test is < α, then H₀ is rejected and H1 is accepted. This means that there is a significant influence between independent variables on dependent variables.

Table 5 Partial Test

Coefficientsª				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

	B	Std. Error	Beta		
1 (Constant)	12.284	2.734		4.493	.000
X (Augmented Reality)	.127	.016	.589	8.146	.000
a. Dependent Variable: Y (Purchase Decision)					

In table 5 above, the significance value of the augmented reality variable of 0.000 is less than α (0.05), therefore the decision to reject H0 is obtained with the conclusion that there is a significant influence of augmented reality on the purchase decision variable.

c. Coefficient of Determination

The coefficient of determination (R^2) is used to see how far an independent variable can be explained by a dependent variable. The coefficient of determination can be seen through the R-square value in the Model Summary table. The value of the determination coefficient is between 0-1. If the value is close to 1, it means that the research regression model is better.

Table 6 Determination Coefficients

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.589[a]	.347	.342	7.15299
a. Predictors: (Constant), X (Augmented Reality)				
b. Dependent Variable: Y (Purchase Decision)				

Table 6 regarding the determination coefficient above shows an R-squared value of 0.347 which means that the augmented reality variable is able to influence the purchase decision variable by 34.7% while the remaining 65.3% (100% - 34.7%) is influenced by other factors outside this study.

The results of this study indicate that the residual data is normally distributed, as evidenced by the normality test with an Asymp. Sig. (2-tailed) value of 0.054, which is greater than 0.05. The linearity test reveals a significant linear relationship between the augmented reality variable and the purchase decision, with a deviation from linearity significance value of 0.487, also greater than 0.05. The simple linear regression analysis suggests that augmented reality positively influences purchase decisions, as shown by the regression equation.

Purchase Decision = 12.284 + 0.127 (Augmented Reality), where the augmented reality coefficient of 0.127 indicates an increase in purchase decisions. The simultaneous test demonstrates an F-statistics value of 66.353 with a significance value of 0.000, indicating that augmented reality collectively has a significant impact on purchase decisions. The partial test further supports this, with a t-statistics value for augmented reality of 8.146 and a significance value of 0.000, showing a significant individual influence of augmented reality on purchase decisions. The coefficient of determination (R-squared) value of 0.347 indicates that 34.7% of the variation in purchase decisions can be explained by augmented reality, while the

remaining 65.3% is influenced by other factors outside the scope of this study. In conclusion, augmented reality has a significant and positive impact on the purchase decisions of L'Oreal cosmetic products on Tokopedia Beauty, although other factors also play a role in influencing these decisions.

The study respondents consisted of a diverse group of consumers who use Tokopedia Beauty to purchase L'Oreal cosmetic products. The respondents varied in age, gender, and purchasing behavior, providing a comprehensive overview of the typical customer base for L'Oreal products on this platform. A significant portion of the respondents reported that the use of augmented reality (AR) applications played a crucial role in their purchasing decisions. These AR applications allowed them to virtually try on makeup products, which enhanced their shopping experience by providing a realistic preview of how the products would look on their skin. This feature was particularly appealing to younger consumers who are more tech-savvy and appreciate the innovative use of technology in their shopping experience. The data also indicated that female respondents, who constituted the majority of the sample, found AR applications to be particularly useful. They reported higher satisfaction levels with their purchases when they used AR to visualize the products beforehand. This suggests that AR technology can significantly reduce the uncertainty and risk associated with online cosmetic purchases, leading to higher customer confidence and satisfaction.

Moreover, the frequency of online shopping and familiarity with digital tools were important factors that influenced how much respondents valued AR features. Regular online shoppers who are accustomed to using various digital tools for shopping and entertainment were more likely to appreciate and use AR technology. In summary, the respondents' feedback underscores the positive impact of augmented reality on the purchase decisions of L'Oreal cosmetic products at Tokopedia Beauty. The ability to virtually try on products not only enhances the shopping experience but also increases customer satisfaction and confidence in their purchasing decisions. This suggests that integrating advanced digital technologies like AR can be a valuable strategy for online retailers to improve customer engagement and sales.

CONCLUSION

This research plan, entitled "The Influence of Using AR (Augmented Reality) and Brand Image on Purchase Decisions for L'oreal Cosmetic Products on Tokopedia Beauty," will provide a significant contribution in understanding the various factors that influence consumer purchasing decisions in the beauty industry, especially on the platform Tokopedia Beauty. By focusing on the implementation of the use of Augmented Reality (AR) technology and (Brand Image) from L'Oreal cosmetic products, this research will bring a comprehensive understanding of the impact of technological innovation and brand image on consumer purchasing decisions. By using quantitative research methods and the theories previously stated, this research can provide insight into the extent to which Augmented Reality experiences and brand perceptions can shape consumer purchasing decisions, especially in digital markets.

This study aims to explore and analyze the impact of Augmented Reality (AR) technology on the purchase decisions of L'Oreal cosmetic products on the e-

commerce platform Tokopedia Beauty. Using data collected through questionnaires completed by consumers of L'Oreal products on Tokopedia Beauty, the study offers several significant findings that collectively underscore the importance of AR in shaping consumer behavior and enhancing the shopping experience.

First, drawing from the Technology Acceptance Model (TAM), the study reveals a high level of consumer acceptance of AR technology in online shopping contexts. Key factors such as perceived ease of use and perceived usefulness are instrumental in improving the consumer shopping experience. Consumers find the AR feature intuitive and beneficial, which increases their likelihood of adopting this technology during their purchasing journey. This aligns with TAM's core premise that the acceptance and use of technology are significantly influenced by how easy and useful consumers perceive the technology to be.

Second, the influence of AR on purchase decisions is notably significant. Multiple linear regression analysis indicates that the use of AR technology has a strong positive effect on consumers' purchasing decisions. Consumers who utilize the AR feature to virtually try products before buying show a higher propensity to complete purchases. This is attributed to the enhanced interaction and deeper engagement facilitated by AR technology. By allowing consumers to visualize the results of using the product in real-time, AR builds confidence and satisfaction, leading to more informed and confident purchase decisions.

Moreover, the brand image of L'Oreal plays a crucial role in consumer purchase decisions. The study finds that a positive brand image boosts consumer trust and desire to buy L'Oreal products. The synergy between a strong brand image and the use of innovative AR technology creates a significant impact on purchase decisions. This combination enhances consumer perceptions, making them more inclined to trust and purchase from a brand that they perceive as both reputable and technologically advanced. The integration of AR with a strong brand image not only attracts consumers but also retains their loyalty by meeting their expectations for quality and innovation.

The study also highlights the importance of consumer satisfaction and engagement. Consumers who use AR report higher satisfaction levels with their shopping experience and exhibit greater engagement with the products. AR technology enables consumers to virtually try products, increasing their satisfaction by allowing them to see the potential results before making a purchase. This pre-purchase trial reduces uncertainty and enhances the overall shopping experience, leading to higher levels of customer satisfaction and engagement, which are critical for positive purchase decisions and brand loyalty.

Additionally, the study notes that factors such as online customer reviews and recommendations from friends or family also influence purchase decisions. However, the use of AR stands out as a primary differentiator in the shopping experience of consumers on Tokopedia Beauty. While customer reviews and personal recommendations remain important, AR provides a significant additional dimension in the consumer decision-making process by offering a more interactive and immersive shopping experience.

Overall, this study concludes that Augmented Reality (AR) technology has a significant positive impact on the purchase decisions of L'Oreal cosmetic products

on Tokopedia Beauty. The implementation of AR not only enhances consumer interaction and experience but also contributes to improving brand image and consumer satisfaction. Therefore, it is recommended that cosmetic companies and e-commerce platforms continue to develop and optimize the use of AR technology to further enhance the consumer shopping experience and drive purchase decisions. This study provides valuable insights for marketers and technology developers, highlighting the potential of AR to boost sales and customer satisfaction in the digital era. The findings emphasize the importance of integrating innovative technologies like AR with strong brand management strategies to create a competitive edge in the increasingly digital marketplace.

Limitations in this research plan open up opportunities for further research. Future research could involve a more comprehensive analysis of the variety of L'Oréal cosmetic products offered at Tokopedia Beauty and how these various factors may differ, especially in influencing purchasing decisions. Apart from that, it can also explore moderating variables, such as consumer preferences or demographic factors. The aim is to understand the more specific context that influences the relationship between AR, brand image and purchasing decisions. Recommendations for further research include comprehensive qualitative research to understand consumer experiences directly, especially in using AR on Tokopedia Beauty. Thus, further research can provide more comprehensive and practical insights for e-commerce industry players, especially in the cosmetics sector, especially to improve digital marketing strategies.

REFERENCES

Alalwan, AA, NP Rana., YK Dwivedi., R. Algharabat. (2017). Social Media in Marketing: A Review and Analysis of the Existing Literature. Telematics and Informatics, 34(1), 1177-1190.

Christopher Prayogo Sanjaya. (2016). CRM Forward Event Creator Company Analysis. PERFORMA: Journal of Management and Start-Up Business, Volume 1, No. 3, August.

Eka Yuniar and Heri Purnomo. ―Implementation of the Chatbot _ Alitta' Virtual Assistant from Balittas as an Information Center in Balittas.‖ Scientific Journal of Informatics Engineering Vol. 12 No. 1 (May 2019)

Endra Wijaya, Putu. "Implementation of Insurance Policy Claims in the Health Services Sector", Thesis, Udayana University, 2014

Earle, R., & Earle, M. (2022). Creating Net Foods. The Product Developer's Guide - the Web Edition. The New Zealand Institute of Food Science & Technology (Inc.). http://www.nzifst.org.nz/resources/creatingnewfoods/index.htm

Heru Chandra L, Purama Sari Wulan. (2021). Analysis of the Influence of Content Marketing on Customer Engagement. Journal of Communication Science, 5(1), 184-190.

Johan Ardi Limandono, Dharmayanti Diah. (2019). The Effect of Content Marketing and Event Marketing on Customer Engagement with Social Media Marketing as a Moderating Variable in Pakuwon City, Petra Christ University., 2(1), 121-131.

Kotler, P. (2006). Marketing Principles 12th Edition Volume 1. Jakarta: Erlangga.