

Artificial Intelligence and Digital Marketing Role in Increasing Consumer Purchase Intention

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ABSTRACT: *The millennial generation was born during a period of rapid technological adoption and development. This generation has become accustomed to utilizing technology to gather information and even make purchases. It's fascinating to learn about the aspects that influence the millennial generation's purchasing decisions. This study utilized artificial intelligence and digital marketing to collect data on the purchasing habits of the millennial population. 97 individuals were chosen for the study by purposive sampling. SEM is a technique for analyzing research data. The findings indicate that artificial intelligence and digital marketing have an effect on customer purchase intention..*

KEYWORDS -Artificial Intelligence, Digital Marketing, Purchase Intention and SEM

I. INTRODUCTION

In the current era of 4.0, the development of the marketplace business in Indonesia has accelerated significantly. Consumers are shopping more easily online, especially now that the COVID-19 pandemic has not ended. This can be done from anywhere and at any time. Similarly to the scope, practically everyone in rural locations can now benefit from learning how to shop through this marketplace. Indonesia's present population is dominated by the millennial generation, which totals 69 million people, or 25.87 percent of the total population [1]. Millennials are a generation of young people defined by their everyday use and adaptation of technology, as well as their ideals, life experiences, goals, and general purchasing behavior. Between 1980 and 2000, this generation was born [2]. Millennials are increasingly aware of their purchasing power and prefer to spend their money in both the retail and internet industries to satisfy their needs [3]. Thus, the millennial generation has developed into an impressive group to study due to their distinct behaviors in comparison to previous generations; this is why it is critical to study their behavior [4]. The critical point is to comprehend the reasons that motivate customers to make a purchase.

Purchase intention is defined as the proclivity of consumers to purchase specific things under specific circumstances [5]. The purchasing decision of a customer is a complicated process. Generally, purchase intention is linked to consumer behavior, perceptions, and attitudes. The most accurate method of forecasting a purchase decision is to use buying intention. Numerous research have been undertaken to examine how digital marketing and artificial intelligence influence consumer purchasing intentions. However, there is a lack of clarity regarding the relationship between these variables, and additional research is necessary to establish this relationship. Additionally, no prior research has been found that examines the effects of these three variables concurrently. Artificial intelligence and digital marketing enable businesses and sectors to deliver the finest service, both in terms of quantity and quality. Industries must enhance their methods of communicating with millennials; in this period, millennials are reshaping consumer thought patterns through their emotions, needs, wants, and expectations. Market researchers and businesses invest billions of dollars in consumer research in order to ascertain the essential aspects influencing customer behavior. Consumer behavior analysis is good at determining the consumer's orientation [6].

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ascertain the essential aspects influencing customer behavior. Consumer behavior analysis is good at determining the consumer's orientation [6].

In Indonesia, the marketplace is extremely diverse, ranging from locally developed marketplaces to international marketplaces. The marketplace is aided in its competitiveness with e-commerce businesses by artificial intelligence-based technology [7]. The Tokopedia marketplace is one of the artificial intelligence or AI technologies developed by the marketplace. The Tokopedia marketplace makes use of a product suggestion system. When a consumer visits a website or browses the internet, AI provides product recommendations based on the consumer's interests [8]. Tokopedia's AI-powered features and innovations include the ChatBot feature for Tokopedia Care, Intelligent Search, TokoBranch, and Fast Recommendations services, all of which are digitally marketed. This was a novel finding in this study. Thus, the purpose of this study is to ascertain the effect of Artificial Intelligence and Digital Marketing on the Purchase Interest of Millennial Generation Consumers. The purpose of this study is to generate a hypothesis based on the Technology Acceptance Model (TAM), Artificial Intelligence, and Digital Marketing, as well as customer purchasing interest.

II. LITERATURE REVIEW

1. Technology Acceptance Model (TAM)

Davis (1989) established the first TAM on the basis of the Theory of Reasoned Action (TRA) paradigm. The primary benefit of TAM is the parsimony model, which is a straightforward but valid approach [9]. Additionally, TAM has been examined in numerous research, with positive results when compared to the TRA (Theory of Reasoned Action) and TPB (Theory of Planned Behavior) models. The TAM consists of five components: perceived usefulness, perceived ease of use, attitude toward using technology, behavioral intention to use, and actual technology use.

2. Digital Marketing

Marketing is the process by which a business develops, communicates, delivers, and exchanges offers that are valuable to consumers or society. While the Internet is a media that was created digitally. In everyday life, the internet makes it extremely simple to obtain necessary information, make purchases, and perform a variety of other tasks via internet media. Thus, the internet has developed into a vital platform for businesses and individuals to exchange offerings. As a result of this definition, the term "digital marketing" has become prevalent in the modern digital era [10]. Thus, digital marketing is the practice of marketing via digital media in order to promote a company's brand.

With the advancement of technology, marketing methods have begun to shift toward a more contemporary approach. They used to advertise through newspapers, magazines, radio, and television in the past. However, marketing has advanced significantly in recent years as a result of the development of internet technology, and is now more commonly referred to as digital marketing. Digital marketing is the use of digital technology to create online routes to the market (website, e-mail, database, digital television, and several other new developments such as blogs, feeds, podcasts, and social networks) that support marketing efforts [11].

Digital marketing has evolved beyond online marketing activities to a process of gaining consumers, developing consumer preferences, promoting products and brands, retaining customers, and increasing sales [12]. Digital marketing is used to extend marketing beyond traditional channels and into all available digital channels in order to contact consumers in a timely and flexible manner. Digital marketing was quantified in this study through the use of a website, social media, online advertising, and email.

3. Artificial Intelligence

Artificial intelligence is a branch of computer science that enables machines (computers) to do tasks as well as people do [13]. Artificial intelligence, by this notion, provides both a medium and a theoretical test of intellect. These hypotheses can then be encoded in a programming language and verified on a real computer. As with people, computers can have software that functions as a brain. Humans can solve a variety of problems not only because they have rational and analytical brains, but also because they have databases, knowledge, and collections of information, all of which are acquired via experience and learning. AI enables virtual shopping capabilities that provide users with individualized recommendations and discuss buying possibilities. AI will also boost inventory management and site layout technology. Expert systems, natural language systems, robotics and sensory systems, and computer vision were all used as indicators in this study [13].

4. Purchase Intention

Purchase interest is a consumer's proclivity to purchase a brand or conduct actions linked to purchases, as evaluated by the degree to which customers can make purchases [14]. Purchase intention is a component of consumer behavior in consuming attitudes; it refers to respondents' proclivity to act prior to making a purchase [15]. Purchase intention is a behavioral dimension of consumer attitudes. Purchasing interest develops as a result of external influences, such as awareness of one's own needs, familiarity with the desired object, and evaluation of alternatives [5]. Numerous factors influence consumer purchasing interest [16], including the following: first, the attitude of others; the extent to which the attitude of others reduces a person's preferred alternative is

determined by two factors: the intensity of others' negative feelings toward the consumer's preferred alternative and the consumer's motivation to comply with other people's wishes. Second, unanticipated situational factors, these elements will eventually be able to influence consumers' purchasing attitudes. It is dependent on the consumer's own thinking, on his confidence in determining whether or not to purchase an item. In this study, purchasing interest was quantified using the AIDA acronym, which stands for attention, interest, desire, and action [17]. Three hypotheses are tested in this study. The first is that artificial intelligence has an effect on purchase intention[18]. Second, AI has an effect on digital marketing[19]. Thirdly, digital marketing has an effect on purchase intention[20].

III. METHOD

The population studied in this study is the Millennial Generation in Sumbawa District, West Nusa Tenggara Province, Indonesia, who are between the ages of 21 and 41 and are active social media users. This study surveyed 97 respondents. Structural Equation Modeling (SEM) with Partial Least Squares was utilized to analyze the data in this study (PLS). The following are the steps involved in the testing process [21] :

- 1) Designing Inner Model
- 2) Designing Outer Model
- 3) Model Evaluation
- 4) Hypotheses test

IV. FINDINGS AND DISCUSSION

1. Designing Inner Model

The inner model is the first step in doing structural equation modeling (SEM) analysis. Relationship between exogenous and endogenous latent infection.

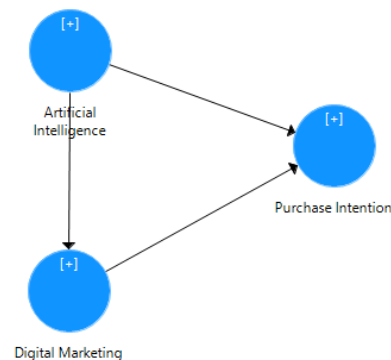


Figure 1. Inner Model

2. Designing Outer Model

In this study, reflecting indicators were used. As seen in Figure 2.

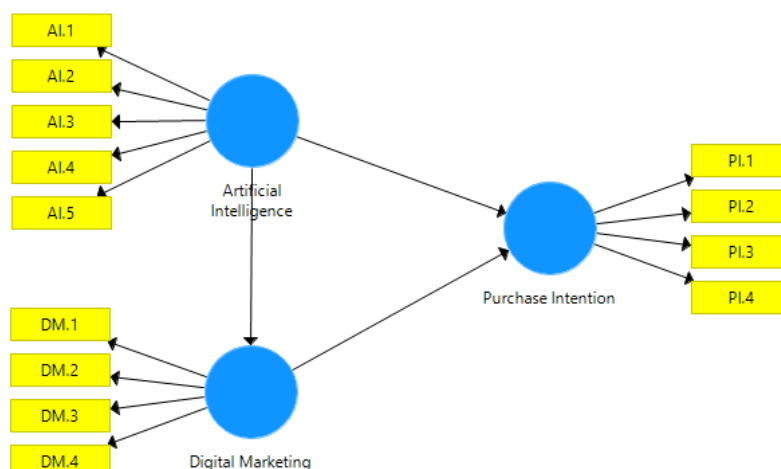


Figure 2. Outer Model

3. Model Evaluation

The first step is to examine the outer model, which includes validating and assessing the dependability of the research tools employed. If the discriminant validity value is greater than 0.60 or the average variance extracted value is greater than 0.50, the model is said to be valid [22].

Table 1. Validity Test

Statement	Cross loading	AVE	Category
AI.1	0.904	0.733	Valid
AI.2	0.859		Valid
AI.3	0.848		Valid
AI.4	0.811		Valid
AI.5	0.855		Valid
DM.1	0.861	0.691	Valid
DM.2	0.860		Valid
DM.3	0.770		Valid
DM.4	0.830		Valid
PI.1	0.870	0.683	Valid
PI.2	0.826		Valid
PI.3	0.834		Valid
PI.4	0.774		Valid

Source : Researcher processed data, 2021

. After testing the validity, all statements have discriminant validity and average variance extracted values that are above the standard so that it can be stated that all statement items are valid for use in research. The next step is to do reliability testing. It is declared reliable if the Cronbach alpha and composite reliability values are > 0.60[23]. Table 2 contains the findings of the reliability testing.

Table 2. Reliability Test

Construct	Cronbach Alpha	Composite Reliability
Purchase Intention	0.888	0.931
Digital Marketing	0.924	0.952
Artificial Intelligence	0.906	0.941

Source : Researcher processed data, 2021

As shown in Table 2, the Cronbach alpha and composite reliability construct values are greater than 0.70, indicating that they are reliable. The following stage is to determine the model's practicality. The model is deemed to be good if the R-Square value is greater than 0.67, moderate if the R-Square value is greater than 0.33, and weak if the R-Square value is greater than 0.19 [21].

Table 3. Inner Model Evaluation

Construct	R-Square	Status
Purchase Intention	0.678	Good
Digital Marketing	0.567	Moderat

Source : Researcher processed data, 2021

The following analysis is used to determine how effectively the whole model predicts customer purchase intention using the relevance of the prediction (Q-square):

$$\begin{aligned}
 Q^2 &= 1 - (1-R1^2)(1-R2^2) \\
 &= 1 - (1-0.678)(1-0.567) \\
 &= 0.8608(86.08\%)
 \end{aligned}$$

4. Hypotheses test

The statistical t test was used to demonstrate the effect of exogenous variables on endogenous variables. Where is the test criteria? If the t statistic value is greater than 1.960, the hypothesis is accepted [20]. The following are the test results:

Table 4. Result

Konstruk	Original Sampel	T Statistik	Status (>1,960)
AI → PI	0.460	3.748	Signifikan
AI → DM	0.761	16.696	Signifikan
DM → PI	0.423	3.451	Signifikan

Source : Researcher processed data, 2021

As shown in Table 4, artificial intelligence variables have a direct effect on purchase intention, artificial intelligence has an effect on digital marketing, and digital marketing has an effect on purchase intention. After establishing the direct influence, the next stage is to demonstrate that the digital marketing variable acts as an intermediary in the interaction between artificial intelligence and purchase intention. The Sobel test results indicate that the digital marketing variable is an intervening variable, as the Sobel test value (3.244) is greater than 1.960.

V. CONCLUSION

This research demonstrates that the more effectively artificial intelligence and digital marketing are used within a business, the greater the influence on raising consumer purchasing interest. Artificial Intelligence Marketing (AI Marketing) is a type of marketing that makes use of artificial intelligence principles and models such as machine learning to forecast client behavior and accomplish marketing objectives. AI technology can assist businesses in determining the type and target audience for more targeted promotions. Additionally, access to broad data enables businesses to explore additional potential via keyword searches, user profiles, and other internet data. Consumers can quickly access and acquire information about products sold on the official Tokopedia website via the website. Additionally, Tokopedia must monitor, create, and analyze the application of other digital marketing methods such as e-mail and social media in order to improve consumer purchasing interest. This can be accomplished through increased marketing efforts, most notably through websites, search engine marketing, e-mail, and social media. Additionally, Tokopedia must assess the limitations or shortcomings of email marketing. Tokopedia must also be able to manage digital marketing effectively, which includes developing unique and original marketing strategies for product information in order to make it more understandable and pique consumer attention, hence increasing consumer purchasing interest.

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