



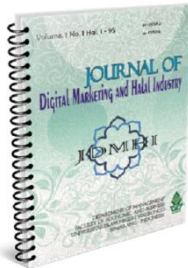
## Convenient or Marketing matters? Unveiling the Determinants of Purchasing Decisions in Tokopedia E-Commerce

**Izeldin Khalid Sufyan<sup>1</sup>, Mohammad Bintang Pamuncak<sup>1,2\*</sup>**

<sup>1</sup>Institut Agama Islam Tazkia, Indonesia, Indonesia

<sup>2</sup>Universiti Kebangsaan Malaysia, Malaysia

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### ABSTRACT

This paper investigates the determinants of Tokopedia e-commerce consumers' purchasing decisions, using Gen-Z as a sample. This paper refers to the Technology Acceptance Model (TAM) as a theoretical framework, where the indicators used in this study combine both convenient matters in purchasing at e-commerce, such as Artificial Intelligence (AI), and marketing matters from both digital and non-digital marketing, i.e., Islamic Marketing Ethics (IME). This paper employs the Structural Equation Model-Pooled Least Square (SEM-PLS). The results show that AI and Digital Marketing (DM) have a positive and significant relationship in influencing consumers' decision to purchase in Tokopedia. Meanwhile, IME has a positive but non-significant relationship with purchase decisions. This paper argues that this is due to the respondents' knowledge of Sharia compliance in e-commerce transactions and the lack of IME indicators socialization by Tokopedia, where Tokopedia already implemented some indicators of IME in their features, such as Halal Corner. The result is expected to contribute to the development of theoretical and practical implications, particularly in marketing matters, both digital and Islamic marketing ethics.

## Introduction

Purchasing decisions are usually associated with the effect of Brand Image, Viral Marketing, price, and product quality (Sari &

Prihartono, 2022; Pratama et al., 2022). However, with the development of technology, purchasing decisions, particularly on the online platform, are also associated with the convenience of online purchasing indicated by Artificial Intelligence (AI) and

\* Corresponding author. email: [bintang.pamuncak@gmail.com](mailto:bintang.pamuncak@gmail.com)

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digital marketing (DM).

This is because AI is starting to spread to various sectors of human work, including social, health, and education, especially the economic sector. In a business context, AI offers significant potential, especially in the marketing field, because advanced AI capabilities make it easier for companies to recognize and understand consumer needs (Indrabayu et al., 2019). According to Mogaji et al., (2021) in Arviollisa. P et al. (2021) stated that with the help of AI, marketers could differentiate consumers into various personas and understand their motivations in purchasing decisions. Marketers can use AI technology to identify and predict consumer behavior through the implementation of more effective keywords. This is to increase personal interactions with consumers; hence, at the same time, it also allows consumers to decide and purchase online.

On the other hand, according to Rachmadi (2020), digital marketing is a technology that is utilized to market products and services through digital media. The digital marketing concept involves a wide range of media platforms such as television, radio, mobile devices, and the Internet. Through these platforms, infographics are presented to discuss various products marketed by the company. This strategy is also utilized to emphasize the brand identity of a good or service (Oktaviani & Rustandi, 2018). If Digital Marketing is implemented well, the positive impact is that it can expand the reach of products or services and reach the target market desired by the company. Further, digital marketing allows companies to communicate products more quickly to consumers because Digital Marketing is the application of the internet and digital

technologies related to traditional communication methods to achieve marketing goals (Chaffey and Chadwick, 2016, p. 16).

Moreover, investigation on determinants of purchasing decisions is also essential because recent surveys conducted by “We are Social and Meltwater” show digital developments in Indonesia, where Internet users and social media users appear to have increased significantly. It is recorded that internet usage in January 2023 showed 212.9 million users. The number of Internet users appears to have increased by 5.2% from the previous year. In line with the increase in Internet use, active social media users in 2023 will reach 167 million users, or the equivalent of 60.4% of the total population in Indonesia. The data also shows an increase in opportunity for various sectors, especially in the economic sector. A digitalized business will be straightforward for potential consumers to find by referring to the data provided above, so it will also be easy to achieve transactions between producers and buyers.

This is because online purchasing decisions are a process where consumers make purchases after selecting from several alternative options by combining knowledge to evaluate the behavior of each option. In choosing the most robust option, influencing factors include personal characteristics, seller/service, website quality, purchasing attitude, intention to purchase online, and decision-making. The purchasing decision process begins when consumers realize the needs or problems they face. Regardless of consumers’ purchasing power, they will search for information and ultimately make purchasing decisions (Zaerofi et al., 2021). Many media outlets can provide information and create online purchasing decisions for potential consumers.

Marketplace and e-commerce are two examples of media that can create this. According to McLeod (2008: 59), E-Commerce or electronic commerce is the use of communication networks and computer devices to carry out business activities. E-commerce is a platform that applies technology and information to its activities and use, and this has become a unique attraction for potential consumers.

Therefore, it is essential to investigate the impact of AI and DM on e-commerce purchasing decisions to analyze and strategically improve the purchasing rate. Moreover, hypothetically, the impact of AI and DM has not been explored further. Hence, this study investigates the impact of AI and DM.

Indonesia has various e-commerce platforms, including Tokopedia, which is included in the Unicorn start-up category. Tokopedia is an online shopping "mall" that allows consumers and businesspeople to interact and carry out buying and selling transactions virtually.

According to Databoks.com, Tokopedia and Shopee are at the top of the list regarding the number of visitors. Tokopedia shows the most significant number of e-commerce sites in Indonesia, with 157.2 million monthly visits. Followed by its competitor, namely Shopee, in second place with a figure of 132.8 million per month. Further, Tokopedia is claimed to be a local or original e-commerce company in Indonesia, while Shopee was founded in a neighboring country, Singapore. Therefore, this study will focus on elaborating on the determinants of Tokopedia consumers' purchasing decisions.

Apart from the convenient indicator indicated by AI and marketing indicator by DM, the fact

that most of the population in Indonesia adheres to Islam, so behind the Marketplace pace, there is a need to pay attention to Islamic Marketing Ethics in transactions and business practices carried out in E-commerce by sharia principles or not. The marketing mix is related to ethics and Islam because each element in the mix has an identity and reflects a unique concept. Suppose Islamic themes are integrated into the marketing mix. In that case, it will lead to value maximization efforts by ensuring that marketers do not cause harm to anyone and prevent unethical marketing practices (Abbas et al., 2020).

However, Islamic marketing is a relatively new field of study, and it will still take time to realize its potential practical benefits. Research on Islamic marketing ethics is still limited, and many are still doubtful about the success of Islamic marketing in providing solutions to marketing approaches that focus on material things (Kashif et al., 2015). Moreover, the Royal Islamic Strategic Studies Centre (RISSC) report entitled *The Muslim 500 2023* edition shows that the Muslim population in Indonesia has reached 237.55 million people. This number is the largest in the Association of Southeast Asian Nations (ASEAN) countries, as well as globally. This is one of the factors that motivated us to investigate the purchase decisions of Tokopedia's e-commerce consumers.

Furthermore, the practice of making purchasing decisions online often occurs in online stores and e-commerce, so special attention is needed to product quality, production processes, fair prices, and halal services. Considering the Islamic perspective, Ullah and Jamali (2010) pay attention to the responsibilities and rights of all parties involved in the market. For example, suppliers

have a responsibility to disclose product quality (including appropriate quality and quantity), ensure safe and hygienic production processes, set fair prices, and provide halal products and services (Lestari & Iriani, 2018).

Therefore, it is interesting to investigate the impact of Artificial Intelligence, Digital Marketing, and Islamic Marketing Ethics purchase Decisions of Tokopedia e-commerce consumers in Bandung because it is listed as a region with the highest digital literacy index and digital economic potential according to the 2022 Indelix survey.

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## **Literature Review**

### **TAM (Technology Acceptance Model)**

Davis (1989) stated that the Technology Acceptance Model (TAM) is a model to predict and explain how technology users accept and use technology related to the user's work (Irawati et al., 2020). The working principle of TAM involves analyzing the influence of technology use on user beliefs, attitudes, and intentions through externally observed variables. TAM consists of four main components: (1) User Behaviour, namely the actual actions taken by users regarding new technology; (2) Behavioural Intention, refers to the user's desire to try new technology; (3) Perceived usefulness, is the user's subjective view regarding the benefits of the newly adopted technology; and (4) Perceived ease of use, describing the extent of effort required by technology users to use it (Su & Li, 2021).

### **Artificial Intelligence**

Artificial Intelligence (AI) is a representation of machines that demonstrate human intelligence capabilities and continues to be used in various services, becoming an essential

source of innovation in the current era. AI is divided into four parts, namely a) Mechanical Intelligence, b) Analytical Intelligence, c) Intuitive Intelligence, and d) Empathetic Intelligence (Huang & Rust, 2018). On the other hand, Mogaji et al. (2020) concluded that AI is becoming important in the digital and marketing world because it functions as a tool for businesses to deliver value to customers through various communication channels while still making accurate and relevant decisions.

### **Digital Marketing**

Digital marketing is a marketing strategy that includes branding and utilizes various web-based media such as blogs, websites, e-mail, AdWords advertisements, and social networking platforms (Hisam, 2018; As'ad H et al., 2014; Putri & Marlien, 2022). Digital Marketing uses the Internet to allow two-way communication between sellers and buyers. (Oktaviani & Rustandi, 2018). According to Young Kim & Kim (2004), four dimensions can be used to measure success in digital marketing: Interactive, Incentive program, Site design, and Cost.

### **Islamic Marketing Ethics**

Islamic Marketing Ethics is a marketing concept that is based on the principles of justice and equality in Islamic teachings, which is different from secular marketing ethics in many ways. In this context, there are three main characteristics of marketing ethics viewed from an Islamic perspective. First, Islamic ethics is based on the commandments contained in the Koran, so it does not leave room for marketing executives to make ambiguous interpretations according to their wishes. Second, the most striking difference is the transcendental aspect of absoluteness and

unchangeability in Islamic marketing ethics. Third, the Islamic approach to marketing emphasizes the importance of maximizing value in the context of the welfare of society and not solely the pursuit of selfish profits (Hassan et al., 2008).

Generally, the indicators of Islamic Marketing Ethics are described in 5 journals, including Al-Ukhuwwah, I. (1983), Hasan. A, et al (2008), Abbas. A, et al (2020), Zain. M, et al (2015), Waharudin. M, (2018). From these five journals, there are several dimensions for calculating Islamic Marketing Ethics, namely, the Production Process with indicators that all parties intend to carry out their obligations, financial and otherwise, in good faith and must be based on the principles of justice, fairness, and equity, there is a need to identify additional features at additional costs that may change the product materially or have an impact on the buyer's purchasing decision. The product must be halal and not cause dullness of mind (Hassan et al., 2008). Halal and safety must be guaranteed (Zain et al., 2015).

Pricing with indicators to avoid cheating on consumers by displaying untruth prices, avoiding cheating on consumers by improperly altering its quantity or quality for illicit gain, and No hoarding, no corner meetings (Bai Inan), no unjustified price (lower price to put his competitors in loss) (Abbas et al., 2020). Promotion/Marketing with indicators Ensures that the advertising concept is by Sharia (Zain et al., 2015). A place with indicators focuses on prioritizing customers/buyers first, which is true satisfaction and respect for everyone involved in the deal (Abbas et al., 2020).

### **Online Purchase Decisions**

Online purchasing decisions are the stage where consumers take advantage of the convenience of the internet in purchasing products or services. This process begins with consumer awareness of information obtained from the internet, which then encourages them to make online purchase transactions. (Kotler, Keller, Maulana, & Hardani, 2009).

In this research, the indicators used to measure online purchasing decision variables are based on research by Devaraj et al. (2003) and Lestari (2018). These indicators have been adapted to the research object and include several factors, including priority in purchasing, efficiency in search, frequency of transactions, Value (competitive prices and good quality), interaction (level of interaction generated by website design), and seller's reputation.

### **Previous study and hypotheses**

Research that discloses the determinants of purchasing decisions mainly focuses on the effect of Brand Image, Viral Marketing, price, and product quality (Sari & Prihartono, 2022; Pratama et al., 2022). Some studies highlight the role of AI and DM (Mogaji. E, et al., 2021; Arviollisa et al., 2021; Putri et al., 2022; Setyawan (2022).

On the other hand, Islamic marketing ethics is important to implement and seek its impact on purchasing decisions. However, the related study on Islamic marketing ethics is still limited. Waharudin discusses it. M (2018), Hasan. A, et al., (2008) and Abbas. A, Nisar. Q et al. (2020). Further, specific studies that discuss the combined matters are still limited. Hence, this study attempts to fill in the gap. Hence, the hypotheses of this study are:

H<sub>1</sub>: AI has a significant and positive impact on the purchasing decisions of Tokopedia

consumers.

H<sub>2</sub>: DM has a significant and positive impact on the purchasing decisions of Tokopedia consumers.

H<sub>3</sub>: Islamic marketing ethics significantly and positively impact Tokopedia consumers' purchasing decisions.

### Method, Data, and Analysis

This research uses primary data obtained by filling out questionnaires and delivering them to respondents. Secondary data is obtained from previous literature, such as journals, articles, and other written references related to the studied variables. The research location was carried out in the Bandung area, which has the highest digital literacy index and digital economic potential, particularly the city of Bandung and Bandung Regency, according to the 2022 Indelix survey. The research was conducted from July to October 2023.

The research approach uses descriptive quantitative with the PLS-SEM method, which is assisted in processing with Smart PLS 3 and Smart PLS 4 software. The criteria for respondents in this study are as follows: 1). Residing in Bandung Regency, Bandung City, or West Bandung Regency. 2). Gen Z (Born 1997 - 2012). 3). Aged 17 - 27 years. 4). Currently/have used the

Tokopedia application. Sampling was carried out using the inverse square root method with 80% statistical tests, a path coefficient of 0.20, and a significance level of 5%. Based on this method, the minimum sample size required in PLS-SEM analysis is 155. Hair et al. (2019) also agree with this view and propose using the inverse square root method to determine the minimum sample size in PLS-SEM analysis.

Therefore, the lower limit used to determine the minimum sample size in this study is 155 to 202 samples adjusted to the research.

## Result and Discussion

### Respondent Characteristics

Table 1 provides conclusions regarding the characteristics of respondents based on demographic data from Generation Z in the Bandung area. From a total of 202 respondents, table 1 presents the characteristics of respondents based on gender, age, occupation, highest level of education, domicile, understanding of Islamic economics, and intensity of online shopping. The characteristics of respondents based on the indicators above can be seen in Table 1 in detail.

Table 1.  
*Respondent Characteristics*

Respondent Characteristics	Number of Respondents	percentage (%)
<b>Gender</b>		
Man	133	66%
Woman	69	34%
Total	202	100%
<b>Age</b>		
17 - 23 Y/o	118	58,6%
24 - 27 Y/o	84	41,4%
Total	202	100%
<b>Last Education</b>		
SD	3	1,5%
SMP/MTs	5	2,5%
SMA/MA	97	48,3%
D3	1	0,5%
S1	88	43,3%

S2	6	3%
S3	2	1%
Total	202	100%
Domicile		
Kabupaten Bandung Barat	56	27,7%
Kabupaten Bandung	72	35,6%
Kota Bandung	73	36,6%
Total	202	100%
Employment		
Pelajar/Mahasiswa	86	42,4%
Pegawai Swasta	30	14,8%
Wiraswasta	28	13,8%
Freelancer	27	13,3%
PNS	20	9,9%
Buruh/buruh lepas	6	3%
ASN P3K	1	0,5%
Guru	1	0,5%
Pegawai BUMN	1	0,5%
Pegawai retail	1	0,5%
Wirasusaha	1	0,5%
Total	202	100%
Understanding of Islamic Economics		
Kurang Standar	37	18,6%
(only akad, riba, dsb)	108	54,3%
Medium (akad, hukum, transaksi, riba, mayshir, dsb)	51	25,6%
Expert (Professional)	3	1,5%
Total	202	100%

Do you often shop online?		
No	14	6,9%
Possible	57	28,1%
Yes	131	65%
Total	202	100%

## Evaluation of Measurement Models

### Convergent Validity

Convergent validity assesses the extent to which two measures derived from the exact concept correlate (J. et al. et al., 2021). The signs used to measure a particular construct should have broadly similar variations. Several methods can be used to estimate the extent of the relative convergent validity of item measures, one of which is the outer loading factor (J. et al. et al., 2021).

One of several factors that is quite determining is the outer loading factor. When convergence has high validity, this implies that each construct converges at one point. An outer loading value of 0.5 can be considered acceptable, especially if there are several other factors in the same construct (Chin, 1998; Hair et al., 2014). After that, items with a loading of less than 0.4 must be excluded, which means that items with an outer loading below 0.5 but above 0.4 are still possible to be included in the research framework (Vinzi et al., 2010). In this research construct, all indicators have exceeded the minimum value of 0.5, which shows that the indicators in this research construct are convergently valid. The results of the outer model test illustrate the outer loading value using the SmartPLS v. four analysis tool.

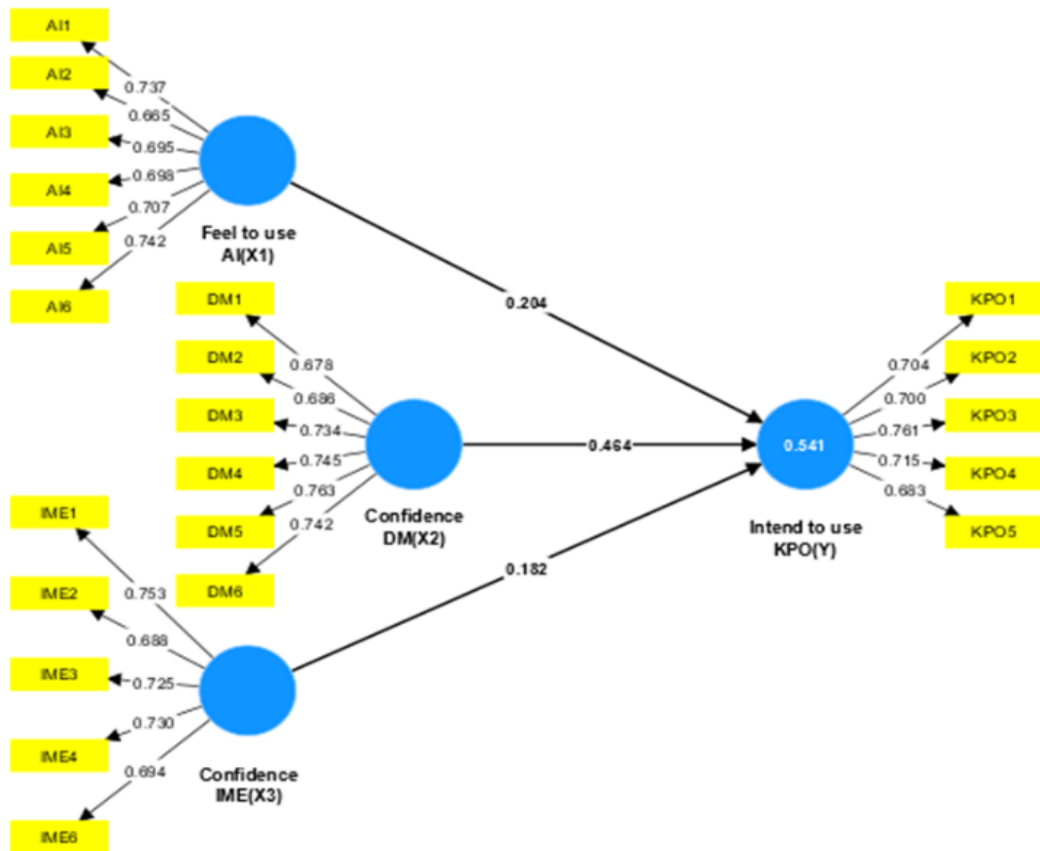


Figure 1 Model framework

**Discriminant Validity**

Discriminant validity is a method used to assess the extent to which a construct can be differentiated from other constructs (Hair et al., 2014). Through discriminant validity, it can be proven that each indicator in the latent variable is considered not to confuse respondents who fill out questionnaires based on indicators in other variables, especially in terms of meaning.

Discriminant validity is considered sufficient if the average variance extracted (AVE) of the extracted mean-variance must exceed the correlation relationship involving latent

variables using the criteria of Fornell, C., & Larcker (1981) and applied in measurement (Hair et al., 2014). In this research, the AVE square root value of each construct exceeds the correlation value with other constructs, as listed in Table 2.

**Table 2.**

*Fornell, C. & Lacker Criterion/Discriminant Validity*

	AI	DM	NAME	KPO
AI	0.708			
DM	0.507	0.725		
IME	0.502	0.695	0.718	
KPO	0.531	0.694	0.607	0.713



Source: Primary data, processed (2023)

**Cronbach’s Alpha & Composite reliability**

Table 3 explains the results of calculating Cronbach's alpha and composite reliability. Cronbach's alpha is used to evaluate whether research instrument items regarding the suitability of the same instrument will produce consistent measurements if the instrument is used twice (J. et al. et al., 2011). In testing reliability, the use of Cronbach's alpha is considered quite acceptable if the value exceeds 0.6 (Solimun et al., 2017). Ideally, Cronbach's alpha value should be above 0.7, but 0.6 is still acceptable in exploratory research (Hair et al., 2014). In the table below, the alpha value for AI is 0.804, DM is 0.820, IME is 0.766, and KPO is 0.758.

In the composite reliability test, an indicator in the latent variable is tested to show its internal consistency (J. et al. et al., 2019). An indicator is considered reliable if the composite reliability value exceeds 0.7 (J. Hair et al., 2017). In Table 4 below, there is an alpha value for AI of 0.858, DM of 0.869, IME of 0.842, and KPO of 0.838.

**Table 3.**  
*Cronbach's Alpha & Composite Reliability*

	Cronbach's alpha	Composite (rho_c) reliability
AI	0.802	0.858
DM	0.820	0.869
IME	0.766	0.842
KPO	0.758	0.838

Source: Primary data, processed (2023)

**Evaluation of Model Fit and Improvement**

**Model Fit**

SRMR is a standardized root mean square residual measuring tool for evaluating Model

Fit. The condition used is that if the SRMR value is less than 0.08, this indicates the model is fit, while if the SRMR value ranges from 0.08 to 0.10, the model is still acceptable (Yamin, 2021). In this study, the table indicates that the SRMR is 0.076 in the saturated model and also 0.076 in the estimated model.

Chi-square describes the level of complexity of a model, where the smaller the chi-square value, the lower the model complexity. Conversely, if the chi-square value is more excellent, the level of model complexity will be higher. However, chi-square cannot be the only measure of the fit of all models because it has high sensitivity (Hair et al., 2014). The Normal Fit Index (NFI) will provide a value in the range between 0 and 1. The closer the value is to 1, the more information indicates the extent to which the model is suitable or suitable. After that, the analysis will continue with testing the relationship between variables (J. F. Hair et al., 2019). The results in Table 4 show that the NFI value tends to be moderate, namely 0.713 in the saturated model and 0.713 in the estimated model.

**Table 4**  
*Model Fit*

	Saturated model	Estimated model
SRMR	0.076	0.076
Chi-square	525.068	525.068
NFI	0.713	0.713

Source: Primary data, processed (2023)

**R Square**

Table 5 shows the R-square value. R-Square is an indicator that shows how much of the variation in the value of the variable that is influenced (endogenous) can be explained by

the variables that act as causes (exogenous) (Hair et al., 2014; Vinzi et al., 2010). According to Cohen (1988), R-Square values that exceed 0.67 are classified as strong, values above 0.33 are classified as moderate, and values above 0.19 are considered weak. If there is more than one exogenous variable, it is recommended to use adjusted R-Square (Vinzi et al., 2010).

In the table below, the R-square adjusted model for online purchasing decisions (KPO) which is influenced by artificial intelligence (AI), digital marketing (DM), and Islamic marketing ethics (IME) has an R-square value of 0.541 and the adjusted R-square is 0.534 which is considered moderate. This shows that endogenous variables are influenced by exogenous variables by 54% and 53% for adjusted R-square. The remainder is influenced by other variables not included in this study.

**Table 5.**

<i>R-square</i>		
	R-square	R-square adjusted
KPO	0.541	0.534

Source: Primary data, processed (2023)

**F Square**

Table 6 shows the F-square value. F-Square is a measure used to measure the relative impact of influencing variables (exogenous) on the influenced variables (endogenous) (Vinzi et al., 2010). Changes in the R-Square value when an exogenous variable is removed from the model can be used as an evaluation tool to determine whether the removed variable substantially influences the endogenous construct (Vinzi et al., 2010). The F-Square value criteria are according to Cohen (1988), where an F-Square value of 0.02 is classified as a minor influence, a value of 0.15 is considered a medium

influence, and a value of 0.35 is considered a significant influence of the exogenous variable on the endogenous variable.

From Table 6, it can be concluded that the AI f-square value on KPO is 0.064, which includes a small influence, the DM f-square value on KPO is 0.227, which includes a moderate influence, and the IME f-square value on KPO is 0.035, which includes a minor influence.

**Table 6.**

<i>F-square</i>				
	AI	DM	IME	KPO
AI				0.064
DM				0.227
IME				0.035
KPO				

Source: Primary data, processed (2023)

**Q Square**

Table 7 shows Q-Square. Prediction relevance (Q-Square) is a test carried out to measure prediction ability using the blindfolding method (Vinzi et al., 2010). According to Cohen (1988), a Q-Square value of 0.02 is classified as a minor influence, 0.15 as a moderate influence, and 0.35 as a significant influence. Based on Table 12, the KPO variable has a Q-Square value of 0.263, which indicates a relatively moderate influence.

**Table 7.**

<i>Q-Square</i>			
	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
KPO	1010	743.924	0.263

Source: Primary data, processed (2023)

**Structural Model Evaluation**

**Collinearity Statistic (VIF) – Inner Model**

Table 8 shows the Variance Inflation Factor

values. Variance Inflation Factor (VIF) is an analysis used to assess collinearity. The VIF value must be below five because if it exceeds this value, this indicates multicollinearity between constructs (Sarstedt et al., 2020). In the following table, there are no variables with values > 5. Therefore, it can be concluded that there is no multicollinearity in this study.

**Table 8.**

*Collinearity Statistics (VIF)*

	AI	DM	IME	KPO
AI				1.430
DM				2.070
IME				2.056
KPO				

Source: Primary data, processed (2023)

**Direct Effect**

Table 9 shows the results of the direct effect test, which is used to test the hypothesis about the direct impact of exogenous variables on endogenous variables. This research tests three

**Table 9.**

*Direct Effect*

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T ( O/STDEV )	statistics P values
AI -> KPO	0.204	0.203	0.076	2.695	0.007
DM -> KPO	0.464	0.463	0.108	4.303	0.000
IME -> KPO	0.182	0.187	0.109	1.67	0.095

Source: Primary data, processed (2023)

Based on Table 9, the influence of artificial intelligence (AI) on online purchasing decisions (KPO) has a path coefficient value of 0.204, P-values 0.007 (>0.05), and a t-statistics value of 2.695 (>1.967), which indicates the influence AI on KPO is positive and significant. Therefore, H1: Artificial Intelligence (X1) positively affects online

hypotheses using the bootstrapping analysis method, with path coefficient and P-value as analysis tools. Sarstedt et al. (2020), a positive path coefficient value indicates that the influence of one variable on another variable is in the same direction. If the value of an exogenous variable is high, then the value of the endogenous variable is also high (Vinzi et al., 2010). If the path coefficient value is negative, this indicates that the influence of one variable on another variable moves in the opposite direction (Sarstedt et al., 2020). When the exogenous variable's value increases, the endogenous variable's value tends to decrease (Vinzi et al., 2010). If the P-value value is less than 0.05, it is considered significant. Conversely, if the P-value value is more than 0.05, it is considered not significant (Vinzi et al., 2010). Then, the T-statistic value can also be used as an additional indicator to determine significance. If the T-statistic value exceeds >1.967 (TINV (0.05; 300-3) for 5% t-table significance), then it can be considered significant (Vinzi et al., 2010).

purchasing decisions in Tokopedia e-commerce.

The influence of digital marketing (DM) on online purchasing decisions (KPO) has a path coefficient value of 0.464, P-values 0.000 (<0.05), and t-statistics value of 4.303 (>1.967) which indicates the influence of DM on KPO is positive and significant. Therefore, H1: Digital Marketing (X2) positively affects online

purchasing decisions in Tokopedia e-commerce.

The influence of Islamic marketing ethics (IME) on online purchasing decisions (KPO) has a path coefficient value of 0.182, P-values 1.670 ( $>0.05$ ), and t-statistics value of 1.670 ( $>1.967$ ), which indicates the influence of IME on KPO is negative. Therefore, H1: Islamic Marketing Ethics (X3) has a positive effect on online purchasing decisions in Tokopedia e-commerce is rejected.

### **Discussion**

#### **The impact of artificial intelligence on online purchasing decisions on Tokopedia e-commerce**

This research shows that the artificial intelligence (AI) variable (X1) has a positive and significant influence on online purchasing decisions (KPO) (Y). The results of this research are in line with research conducted by Arviollisa et al. (2021), which explains that artificial intelligence has a positive and significant effect on the Customer Experience of Go-jek users in the Bandung area by using four dimensions of AI, namely Mechanical Intelligence, Analytical Intelligence, Intuitive Intelligence, and Empathy Intelligence. Huang and Rust (2018) state that AI has the potential to automate and replace specific tasks and jobs that humans usually carry out. Examples include machine learning, which in this case includes mechanical intelligence, which can carry out repetitive and routine tasks more efficiently and accurately. This is also confirmed by research by F. Pangkey et al. (2018), which states that artificial intelligence has a positive and significant effect on consumer buying interest.

In this research, most respondents agreed that the 'button icons on Tokopedia' corresponded

to the input/commands given. So, users are helped to operate and find the items they seek. Apart from that, most respondents also strongly agree that AI is beneficial in finding the desired item because of search recommendations, according to History. Not only that, Tokopedia's innovation and development, which is adapted to the times and needs, really makes things easier for users. Research conducted by P. Roida (2021) states that with artificial intelligence, e-commerce consumers can more easily get products that suit their preferences and needs.

#### **The impact of digital marketing on online purchasing decisions on Tokopedia e-commerce**

This research found that the digital marketing variable (X2) positively and significantly affected online purchasing decisions (Y) in Tokopedia e-commerce. This is reinforced by research conducted by Putri et al. (2022), which states that digital marketing positively and significantly affects online purchasing decisions. According to Novianti (2020) in Putri et al., (2022), better digital marketing can improve purchasing decisions.

In this research, the fifth indicator, namely 'level of product availability,' has the highest outer loading value. This proves that most respondents agree that Tokopedia always provides the items they seek. The results of this research are also inseparable from the intensity of shopping online. As many as 65% of respondents in this study agreed that they often shop online.

#### **The impact of Islamic marketing ethics on online purchasing decisions on Tokopedia e-commerce**

The Islamic marketing ethics variable in this research negatively influences online

purchasing decisions. Another research conducted by Abbas et al., (2020) found that Islamic marketing ethics has a positive and significant relationship to customer satisfaction in the banking sector. There are differences in the results of this research, which are caused by differences in regional variations of respondents, the variables influenced, and the data analysis methods used.

The sixth indicator included in the 'production process' dimension, ensuring halal and safety, has the smallest outer loading value. So, it can be concluded that respondents agree that there are still shops/outlets on Tokopedia that have not clearly described halal and safe for each product. However, the first indicator that measures price explanations, which also includes the 'production process' dimension, shows the highest outer loading value. This shows that, although the majority of respondents agree that some shops/outlets on Tokopedia have not clearly described the halal and safe nature of each product, they agree that Tokopedia has displayed prices according to the shop when making payments, such as displaying details and total prices when making payments. Research conducted by Marits and Zaerofi (2023) states that if consumers perceive the product clearly, it will influence consumers in e-commerce. The research results on this variable are also influenced by the respondent's level of knowledge of Islamic economics. In this study, 18.7% of respondents lacked knowledge about Islamic economics.

Connected with business aspects in Tokopedia E-commerce, including the Islamic Marketing Ethics variable, namely online shops on Tokopedia E-commerce must describe halal

and safe information on each product because IME has the principles of honesty, integrity, and transparency of information on every transaction and his activities. Apart from that, they must also display prices that are reasonable according to the market and do not harm competitors, such as lowering prices drastically below market prices, thereby harming other competitors. Furthermore, from a marketing aspect, online shops or Tokopedia must display advertisements that do not violate the Sharia, such as displaying models that are too vulgar, exemplifying business practices that the Sharia prohibits, and advertising haram or non-halal products.

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## **Conclusion**

This paper investigates the determinants of Tokopedia e-commerce consumers' purchasing decisions, using Gen-Z as a sample. This paper refers to the Technology Acceptance Model (TAM) as a theoretical framework, where the indicators used in this study combine both convenient matters in purchasing at e-commerce, such as Artificial Intelligence (AI), and marketing matters from both digital and non-digital marketing, i.e., Islamic Marketing Ethics (IME). This paper employs the Structural Equation Model-Pooled Least Square (SEM-PLS). The results show that AI and Digital Marketing (DM) have a positive and significant relationship in influencing consumers' decision to purchase in Tokopedia. Meanwhile, IME has a positive but non-significant relationship with purchase decisions. This paper argues that this is due to the respondents' knowledge of Sharia compliance in e-commerce transactions and the lack of IME indicators socialization by Tokopedia, where Tokopedia already implemented some indicators of IME in their

features, such as Halal Corner. The result is expected to contribute to the development of theoretical and practical implications, particularly in digital and Islamic marketing ethics.

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### **Suggestion**

The expected contribution of the study from a theoretical perspective includes the development of Islamic marketing ethics indicators so that future studies can benefit from constructing Islamic marketing ethics theory as well as the Islamic marketing index. Further, endorsement of Islamic marketing ethics indicators, particularly to the young generation, is essential as the empirical results show that Islamic marketing ethics does not significantly affect purchasing decisions. The E-commerce industry, particularly Tokopedia, also significantly promotes Islamic marketing ethics by showing and promoting more indicators of Islamic marketing ethics, such as Halal products and halal corners.

However, this research has limitations. For instance, other variables that are not included in the study may have the potential to influence the purchase decisions. Therefore, it is possible to collaborate with other variables for further research. Another limitation of this research is that it only focuses on one generation, i.e., Gen-Z. Hence, their geographical aspects and knowledge about Islamic economics matter, and they may influence the impact of Islamic marketing ethics on purchase decisions.

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