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THE INFLUENCE OF BRAND AWARENESS AND PERCEIVED QUALITY ON IQOS PRODUCT PURCHASE DECISIONS IN MEDAN CITY

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ABSTRACT

This study aims to analyze the influence of brand awareness and perceived quality on the purchase decision of IQOS products in Medan City. Indonesia is the country with the third largest number of smokers in the world, with North Sumatra ranked ninth in the province with the most smokers in Indonesia. This study uses a quantitative approach with a non-probability sampling technique through the accidental sampling method. The research sample amounted to 115 respondents who were IQOS users in Medan City with the criterion of being at least 18 years old. The data analysis technique used multiple linear regression analysis preceded by validity, reliability, and classical assumption tests. The results showed that partially brand awareness had a significant effect on the purchase decision of IQOS products in Medan City with a t-table value (34,416) > t table (1,658), while perceived quality had no effect on the purchase decision with a t-value (-0.264) < t table (1,658). The regression equation obtained is $Y = 1.416 - 0.013X_1 + 1.618X_2$. This research provides important implications for the marketing strategy of IQOS products in Medan City, where strengthening brand awareness needs to be the main focus in efforts to improve consumer purchasing decisions.

Keywords: Brand Awareness, Perceived Quality, Purchase Decisions

BACKGROUND

Indonesia is one of the largest tobacco markets in the world and has long been recognized as a country with a high prevalence of smoking. With a population exceeding 280 million people, Indonesia ranks as the fourth most populous country globally and the third largest consumer of tobacco products after China and India (Central Statistics Agency [BPS], 2023). According to the *WHO Global Report on Trends in Prevalence of Tobacco Use 2000–2025* (World Health Organization [WHO], 2023), approximately 70% of adult males in Indonesia are active smokers, making Indonesia one of the countries with the highest smoking prevalence among adult men worldwide. Likewise, the *Global Adult Tobacco Survey* (GATS, 2021) reported that more than 70 million Indonesians consume tobacco products regularly. This condition demonstrates that smoking has become not only a public health issue but also a significant socio-economic phenomenon that influences consumer behavior, government policy, and business competition within the tobacco industry.

The tobacco industry has historically played an essential role in Indonesia's economy. Besides providing employment opportunities for millions of people throughout the tobacco supply chain, the industry contributes substantially to state revenue through tobacco excise taxes. According to the Ministry of Finance of the Republic of Indonesia (2023), tobacco excise revenue reached IDR 232.5 trillion in 2023, accounting for approximately 10% of total national tax revenue. Furthermore, the government allocates part of these revenues through the Tobacco Product Excise Revenue Sharing Fund (DBH-CHT) to support healthcare services, tobacco farming development, and regional economic programs, as stipulated in the Regulation of the Minister of Finance No. 215/PMK.07/2021 (Ministry of Finance of the Republic of Indonesia, 2021). These figures illustrate that despite increasing public awareness regarding the health risks associated with smoking, the tobacco industry continues to hold strategic economic importance in Indonesia.

At the same time, global concerns regarding smoking-related diseases have encouraged tobacco companies to develop alternative tobacco products that are considered less harmful than conventional combustible cigarettes. Philip Morris International introduced IQOS, a heated tobacco product that heats tobacco rather than burning it, thereby significantly reducing the production of harmful combustion chemicals. According to PT HM Sampoerna Tbk. (2019), IQOS represents one of the company's major innovations in supporting a smoke-free future and has become one of the fastest-growing heated tobacco products globally. Although IQOS still contains nicotine and is not entirely risk-free, scientific evidence suggests that eliminating tobacco combustion can substantially reduce exposure to harmful chemicals commonly found in cigarette smoke (WHO, 2021).

Despite the increasing availability of IQOS in Indonesia, consumer acceptance remains relatively limited compared with conventional cigarettes. This phenomenon reflects the complexity of consumer decision-making within the tobacco market. Indonesian consumers have developed strong cultural, social, and psychological attachments to conventional cigarettes, particularly kretek cigarettes, which have long been embedded within Indonesian social traditions (Rahayu, 2018). Smoking frequently accompanies social gatherings, family interactions, and workplace activities, making conventional cigarettes not merely consumer products but also cultural symbols. Consequently, consumers often exhibit resistance toward adopting alternative tobacco products despite increasing awareness of health issues.

Economic considerations further contribute to consumers' reluctance to switch from conventional cigarettes to IQOS. Conventional cigarettes are relatively affordable and widely distributed across urban and rural areas, whereas IQOS requires a higher initial investment for purchasing the device and specialized tobacco sticks. According to Wijayanti (2020), product affordability remains one of the primary determinants influencing consumers' willingness to adopt alternative tobacco products in Indonesia. Similarly, Setyonaluri (2019) emphasized that accessibility remains a critical challenge because heated tobacco products are generally available only in major cities, limiting their penetration into broader consumer markets.

Among Indonesia's major urban centers, Medan represents one of the most attractive markets for tobacco products. As the capital city of North Sumatra Province and the third-largest metropolitan area in Indonesia, Medan continues to experience rapid urbanization, increasing purchasing power, and significant retail development (Nasution et al., 2022). The city also records one of the highest smoking prevalence rates in Indonesia. According to the North Sumatra Provincial Health Office (2020), approximately 35% of adults in Medan are active smokers. Likewise, Nawi et al. (2020) reported that smoking behavior among young adults in Medan remains considerably higher than in many other Indonesian cities, reflecting the strong social acceptance of tobacco consumption within the region.

Although smoking prevalence remains high, increasing public awareness regarding health risks has gradually changed consumer preferences toward products perceived as safer alternatives. Consumers are becoming more selective and increasingly consider product quality, technological innovation, and corporate reputation before making purchasing decisions. Consequently, tobacco companies must compete not only by offering innovative products but also by building strong brands capable of attracting consumer trust and confidence.

Within marketing literature, brand awareness has consistently been recognized as one of the most influential determinants of consumer purchasing decisions. Brand awareness refers to consumers' ability to recognize and recall a particular brand when considering product alternatives (Kotler & Keller, 2009). A brand that occupies consumers' top-of-mind awareness is more likely to be selected because familiarity reduces perceived risk during the purchasing process (Durianto et al., 2004). Strong brand awareness also facilitates consumers in evaluating products, strengthens brand preference, and increases purchase intention (Durianto et al., 2017). Previous empirical studies consistently support this argument. Arianty and Andira (2021), Krisnawati (2016), Purwanti et al. (2020), Putri and Deniza (2018), and Muzammil et al. (2021) all found that higher brand awareness significantly influences consumers' purchasing decisions across various product categories.

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In addition to brand awareness, perceived quality plays a crucial role in shaping consumer purchase decisions. Zeithaml (1988) defined perceived quality as consumers' subjective judgment regarding a product's overall excellence relative to competing alternatives. Unlike objective product quality, perceived quality is influenced by consumers' experiences, product performance, technological innovation, design, and brand reputation. For innovative products such as IQOS, perceived quality becomes particularly important because consumers evaluate not only the functional performance of the device but also its reliability, safety, durability, and overall value proposition. Durianto et al. (2004) argued that consumers who perceive higher product quality are more likely to develop favorable attitudes toward the brand and ultimately make purchasing decisions. This finding is further supported by Hngau et al. (2012), Putra et al. (2021), and Putri et al. (2019), who concluded that perceived quality significantly influences consumer purchase decisions across various industries.

Although previous studies have extensively examined the influence of brand awareness and perceived quality on purchase decisions, empirical evidence specifically investigating IQOS products in Medan remains limited. Most previous research has focused on consumer goods, smartphones, bottled water, cosmetics, and beverages, while studies involving heated tobacco products are still scarce. Furthermore, Medan possesses unique demographic, cultural, and behavioral characteristics that may produce different purchasing patterns compared with other Indonesian cities. This gap highlights the necessity of conducting further empirical investigation within the context of IQOS consumers in Medan.

Therefore, this study aims to examine the influence of brand awareness and perceived quality on consumers' purchase decisions regarding IQOS products in Medan. The findings are expected to contribute theoretically by enriching consumer behavior and branding literature within the alternative tobacco product industry while also providing practical implications for PT HM Sampoerna and other tobacco companies in designing more effective marketing strategies to strengthen brand competitiveness and encourage informed consumer purchasing decisions.

RESEARCH METHOD

The population of this study consists of IQOS users in Medan City. Since the exact number of IQOS users is unknown and cannot be accurately identified, the population is considered an infinite or unknown population. Therefore, sampling techniques were employed to obtain representative data from the target population.

This study used a non-probability sampling method, specifically accidental sampling. Non-probability sampling is a sampling technique in which not every member of the population has an equal opportunity to be selected as a research sample (Sugiyono, 2004). Accidental sampling was chosen because respondents were selected based on their availability and willingness to participate when encountered by the researcher, provided that they met the predetermined research criteria.

The minimum sample size was determined using the recommendation proposed by Hair et al. (2019), which suggests that the minimum number of respondents should be five times the total number of measurement indicators when conducting multivariate analysis. This study employed 23 questionnaire indicators; therefore, the minimum required sample size was calculated as follows:

[n = 23 \times 5 = 115]

Accordingly, the study involved 115 respondents who met the sampling criteria and completed the questionnaire.

The respondents were selected based on the following inclusion criteria:

1. Residents of Medan City.
2. Aged 18 years or older.
3. Have used IQOS products at least once.

RESEARCH FINDINGS

Respondent Characteristics

Age

The gender composition of respondents showed the dominance of male users which reached 71.3%, while female users were 28.7%. This indicates that although the majority of IQOS users are male, there is a significant percentage of female users who are interested in this product.

Long use of IQOS

Regarding the usage pattern of IQOS, most respondents (33%) have been using this product for 1-2 years, while 27% are new users with a duration of less than 6 months. Users with a duration of 6-12 months reached 23.5%, and old users (more than 2 years) reached 16.5%. This shows a fairly even distribution between new users and users who have been adopting these e-cigarettes for a long time.

Data Analysis

Validity Test

All variable items have r calculated > r table, namely at a significance level of 95% (α=0.05) and n = 115 obtained r table = 0.176, so it can be concluded that the entire research variable item is valid

Reliability Test

The instrument was declared reliable because it had *a Cronbach's Alpha value* of more than 0.6.

Classical Assumption Test Results

Multicollinearity Test

The VIF value of all independent variables in this study is less than 10 and the tolerance value of all independent variables is greater than 0.1 or 10%, which means that there is no correlation between independent variables with values of more than 90%, so it can be concluded that there are no symptoms of multicollinearity between independent variables in the regression model.

Heterokedasticity Test

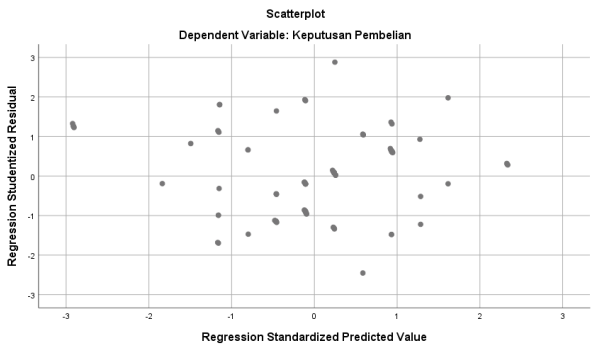


Figure 1. Heterokedasticity Test

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Source: SPSS Output (2022)

The graph above shows that the dots that are scattered randomly and do not form a definite pattern, and are scattered above or below the number 0 (zero) on the Y axis, then it can be interpreted that there is no deviation from the classical assumption of heterokedasticity.

Normality Test

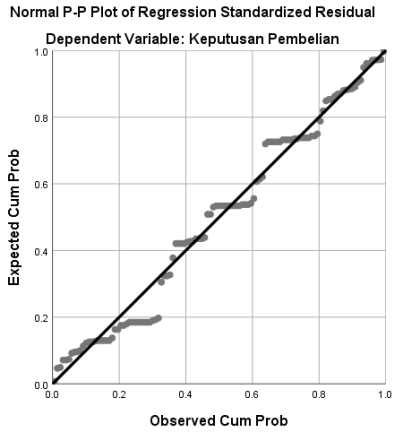


Figure 2. Normality Test

Source: SPSS Output (2022)

The image above shows that all data is distributed normally, the distribution of data is around a diagonal line. So the regression model meets the assumption of normality.

Hypothesis Test Results

Significance Test (T Test)

Table 1. T Test

Coefficient						
Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.416	1.692		.837	.404
	Perceived Quality	-.013	.050	-.007	-.264	.792
	Brand Awareness	1.618	.047	.957	34.416	.000
a. Dependent Variable: Purchase Decision						

Perceived Quality variable hypothesis (X1)

In the table above, it can be seen that the value of t calculated for the variable Perceived Quality (X1) is -0.264 and t of the table is obtained 1.658 and a significance of 0.792 then t calculates < t of the table and the significance of > 0.05, namely Ha is rejected, then it means that Perceived Quality (X2) partially has no effect on the purchase decision (Y).

Brand Awareness variable hypothesis (X2)

In the table above, it can be found that the value of t calculated for the variable Brand Awareness (X2) is 34,416 and t of the table is obtained 1,658 and the significance is 0.000, then t calculates > t of the table and the significance of < 0.05, namely Ha is accepted, then it means that Brand Awareness (X1) partially affects the purchase decision (Y).

Multiple Regression Test

Table 2. Multiple Regression Test

Coefficient						
Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.416	1.692		.837	.404
	Perceived Quality	-.013	.050	-.007	-.264	.792
	Brand Awareness	1.618	.047	.957	34.416	.000
a. Dependent Variable: Purchase Decision						

The output results of SPSS 24 above, the multiple linear regression equation in this study is as follows:

Y= 5.686 + 0.828X1 + -0.055X2

1) The constant value is 1,416 which means that if the brand awareness and perceived quality value is 1, then the purchase decision will increase by 1,416.

2) The value of the regression coefficient in the perceived quality variable (X1) is negative, which is -0.013 which means that if each increase in motivation is 1 unit, the purchase decision will decrease by -0.013 units assuming the independent variable has a fixed value.

3) The value of the regression coefficient in the brand awareness variable (X2) has a positive value, which is 1,618 which means that if each increase in brand awareness is 1 unit, the purchase decision tends to increase by 1,618 units assuming the independent variable has a fixed value.

DISCUSSION

The Influence of Perceived Quality on Purchase Decisions

The test results prove that the Influence of *Perceived Quality* (X1) on the Purchase Decision is known to be a calculated t value for the Perceived Quality (X1) variable, which is -0.264 and t table is obtained 1.658 and a significance of 0.792, then t calculates < t of the table and the significance of > 0.05, namely Ha is rejected, so it means that Perceived Quality (X2) partially has no effect on the purchase decision (Y).

Positive perceived quality will encourage purchase decisions and create loyalty to the product. Considering that consumer perception can be predicted, the perceived quality is negative, then the product will not be liked and will not last long in the market. On the other hand, if the perceived quality of customers is positive, the product will be preferred, so that they will make a decision to purchase the product (Wijayanti et al., 2015). According to (Durianto et al., 2017), perceived quality can be defined

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as customer perception of the overall quality or excellence of perceived quality products or services related to what is expected by customers.

These results support previous research conducted by (Hngau et al., 2012), (T. A. Putri et al., 2019), (Putra et al., 2021), (Muzammil et al., 2021) which stated that there is an influence of perceived quality on purchase decisions and in accordance with the hypothesis proposed, namely perceived quality affects purchase decisions.

The Influence of Brand Awareness on Purchase Decisions

The test results prove that the Influence of Brand Awareness (X2) on Purchase Decisions is t-calculated for the Brand Awareness variable (X2) which is 34,416 and t table is obtained 1,658 and significance 0.000 then t is calculated > t table and significance < 0.05 i.e. Ha is accepted, then it means that Brand Awareness (X1) partially affects the purchase decision (Y).

Brand awareness is the ability of consumers to identify a brand under different conditions, which can be done by brand recognition and recall of a certain brand. Brand awareness is created and improved by increasing brand familiarity through repeated exposure so that consumers feel familiar with the brand (Keller, 2003) in (Suciningtyas, 2012). According to (Durianto et al., 2017) brand awareness is the ability of a potential buyer to recognize or recall a brand as part of a certain product category. People are more likely to like or buy a well-known brand because they feel safe with something that is known. Most of them assume that a well-known brand has the possibility of reliability, stability in business and quality that can be accounted for.

These results support previous research conducted by (Suciningtyas, 2012), (Krisnawati, 2016), (Cahyani & Sutrasmawati, 2016), (S. L. Putri & Deniza, 2018), (Purwanti et al., 2020), (Arianty & Andira, 2021), (Putra et al., 2021), (Muzammil et al., 2021) which stated that there is an influence of brand awareness on purchase decisions and in accordance with the hypothesis proposed, namely that brand awareness affects purchase decisions.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that brand awareness has a positive and statistically significant influence on the purchase decision of IQOS products in Medan City. This finding is supported by the calculated *t*-value of 34.416, which is greater than the critical *t*-value of 1.658, with a significance level of 0.000 (< 0.05). The results indicate that consumers with higher awareness and recognition of the IQOS brand are more likely to make purchasing decisions. This finding emphasizes the importance of strengthening brand awareness through effective marketing communication, promotional activities, and brand positioning strategies to enhance consumers' purchase intentions.

In contrast, perceived quality was found to have no significant effect on the purchase decision of IQOS products in Medan City. The calculated *t*-value of -0.264 was lower than the critical *t*-value of 1.658, with a significance level of 0.792 (> 0.05), indicating that consumers' perceptions of product quality do not significantly influence their purchasing decisions. This suggests that consumers may consider other factors, such as brand familiarity, lifestyle, social influence, or product innovation, to be more important than perceived quality when deciding to purchase IQOS products.

The multiple regression analysis produced the equation $Y = 1.416 – 0.013X_1 + 1.618X_2$, indicating the relationship between the independent variables and purchase decisions. Although the regression model shows a positive coefficient for one predictor and a negative coefficient for the other, the hypothesis testing confirms that only brand awareness has a statistically significant influence on purchase decisions, whereas the effect of perceived quality is not statistically significant. Therefore, the interpretation of the regression coefficients should be considered together with the results of the significance tests.

Furthermore, the demographic characteristics of the respondents reveal that IQOS users in Medan City are predominantly male (71.3%), while female users account for 28.7% of the sample. In addition, approximately 33% of respondents reported having used IQOS products for one to two years, indicating that the product has gained considerable acceptance among smokers in Medan City. Overall, these findings highlight the strategic importance of enhancing brand awareness as a key determinant of consumers' purchasing decisions. Meanwhile, the role of perceived quality requires further investigation, as its influence may depend on other mediating or moderating factors that were not examined in the present study. Future research is therefore recommended to explore additional variables, such as brand image, consumer trust, perceived risk, lifestyle, and social influence, to obtain a more comprehensive understanding of consumers' purchasing behavior toward IQOS products.

REFERENCE

Adhikara, M. A., Maslichah, M., & Diana, N. (2013).

Arianty, N., & Andira, A. (2021). The influence of brand awareness on purchase decisions. *Jurnal Manajemen dan Bisnis, 21*(2), 162–171.

Badan Pusat Statistik. (2023). *Health statistics: Smoking prevalence in Indonesia*. BPS.

Bougenvile, A., & Ruswanti, E. (2017). Brand equity on purchase intention: Consumers' willingness to pay premium price for juice. *IOSR Journal of Economics and Finance, 8*(1), 12–18.

Cahyani, K. I., & Sutrasmawati, E. (2016). The influence of brand awareness and brand image on purchase decisions. *Management Analysis Journal, 5*(4), 281–288.

Dinas Kesehatan Provinsi Sumatera Utara. (2020). *Annual report on the prevalence of smoking in North Sumatra*. Dinas Kesehatan Provinsi Sumatera Utara.

Durianto, D., Sugiarto, & Budiman, L. J. (2004). *Brand equity ten: Strategi memimpin pasar*. PT Gramedia Pustaka Utama.

Durianto, D., Sugiarto, & Sitinjak, T. (2017). *Strategi menaklukkan pasar melalui riset ekuitas dan perilaku merek*. Gramedia Pustaka Utama.

Global Adult Tobacco Survey. (2021). *Indonesia report 2021*. Ministry of Health of the Republic of Indonesia.

Hngau, S., Mintarti, S., & Kulsum. (2012). The effect of perceived quality, perceived value, brand preference, consumer satisfaction, and consumer loyalty on repurchase intention. *Jurnal Aplikasi Manajemen, 10*(2), 305–314.

Kotler, P. (1996). *Marketing management: Analysis, planning, implementation, and control* (9th ed.). Prentice Hall.

Kotler, P. (2003). *Marketing management* (11th ed.). Prentice Hall.

Kotler, P. (2005). *Marketing management* (11th Indonesian ed.). PT Indeks.

Kotler, P., & Keller, K. L. (2009). *Marketing management* (13th ed., Vol. 1). Erlangga.

Krisnawati, D. (2016). The influence of brand awareness on the purchase decision of Aqua bottled drinking water. *Jurnal Ilmiah Manajemen Bisnis, 16*(1), 19–28.

Kementerian Keuangan Republik Indonesia. (2021). *Peraturan Menteri Keuangan Nomor 215/PMK.07/2021 tentang pengelolaan dana bagi hasil cukai hasil tembakau*. Kementerian Keuangan Republik Indonesia.

Kementerian Keuangan Republik Indonesia. (2023). *State revenue report from tobacco excise*. Kementerian Keuangan Republik Indonesia.

Muzammil, A., Yunus, M., & Darsono, N. (2021). The influence of brand awareness, perceived quality, and brand loyalty on Samsung mobile phone purchase decisions in Banda Aceh City. *Jurnal Manajemen dan Keuangan, 10*(1), 97–108.

Nasution, M. K., Nasution, L. M., & Damanik, B. (2022). Urbanization and development of Medan as the third largest city in Indonesia. *Journal of Urban Development, 10*(1), 56–68.

Nawi, A. M., Ng, P. Y., & Weinehall, L. (2020). Smoking patterns and determinants among youth in Medan, Indonesia. *International Journal of Environmental Research and Public Health, 17*(15), Article 5234.

Pratiwi, R. (2021). Factors influencing smoking behavior in Indonesian society. *Journal of Public Health, 9*(3), 124–135.

PT HM Sampoerna Tbk. (2019). *Annual report 2019*. PT HM Sampoerna Tbk.

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Purwanti, D., Sugiono, E., & Pristiana, U. (2020). The effect of brand awareness on isotonic beverage purchase decisions. *Jurnal Manajemen dan Kewirausahaan, 5*(1), 80–95.
Putra, R. P., Utomo, S. H., & Wijaya, A. L. (2021). The influence of brand awareness and perceived quality on iPhone product purchase decisions. *Jurnal Ekonomi, Bisnis dan Akuntansi, 23*(1), 53–67.
Putri, S. L., & Deniza, M. (2018). The influence of brand awareness on Pond's product purchase decisions. *Jurnal Administrasi Bisnis, 60*(2), 64–72.
Putri, T. A., Suharyono, & Fanani, D. (2019). The influence of perceived quality and brand image on purchase decisions. *Jurnal Administrasi Bisnis, 65*(1), 36–45.
Rahayu, S. (2018). Kretek cigarettes in Indonesian culture: A sociological study. *Jurnal Sosiologi Nusantara, 4*(1), 91–106.
Reynolds, N. (2019). Tobacco control implementation in urban areas: The case of Medan. *Journal of Public Health Policy in Asia, 8*(2), 178–192.
Rumah Sakit Haji Adam Malik Medan. (2021). *Annual report on smoking-related diseases*. Rumah Sakit Haji Adam Malik.
Setyonaluri, D. (2019). Accessibility and use of alternative tobacco products in Indonesia. *Jurnal Kependudukan Indonesia, 14*(2), 153–168.
Suciningtyas, W. (2012). The influence of brand awareness, brand image, and media communication on purchase decisions. *Management Analysis Journal, 1*(1), 1–8.
Sugiyono. (2004). *Metode penelitian bisnis*. Alfabeta.
Wijayanti, A. (2020). Analysis of consumer preferences for alternative tobacco products in Indonesia. *Jurnal Ekonomi dan Bisnis, 23*(2), 95–114.
Wijayanti, R., Suharyono, & Yulianto, E. (2015). The influence of experiential marketing on customer satisfaction and its impact on customer loyalty. *Jurnal Administrasi Bisnis, 28*(1), 1–6.
World Health Organization. (2021). *WHO report on the global tobacco epidemic 2021: Addressing new and emerging products*. World Health Organization.
World Health Organization. (2023). *WHO global report on trends in prevalence of tobacco use 2000–2025* (4th ed.). World Health Organization.
Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2–22.