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Research Paper

Factors Influencing Customer Satisfaction with Halal Cosmetics: An Online Purchasing Study of Generation Z Muslim Women

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ABSTRACT

Customer loyalty in the beauty product sector, particularly for halal cosmetics, has been underexplored despite its importance in marketing research. This study explores the determinants of customer satisfaction and loyalty towards halal cosmetics in Indonesia. Data were collected from 215 Generation Z Muslim women who have made multiple purchases from the official online store of a halal cosmetic brand through an online questionnaire. The data were further analysed by employing Structural Equation Modelling-Partial Least Square (SEM-PLS). The results showed that overall quality and perceived value significantly influence customer satisfaction, which in turn affects loyalty. However, perceived risk did not significantly impact satisfaction. It was further revealed that customer satisfaction has a significant influence on the customer loyalty to halal cosmetics. These findings highlight the need for brands to consistently deliver high-quality products and enhance perceived value to foster lasting customer relationships. Given Generation Z's potential as customers but known brand-switching tendencies, this study offers insights into their loyalty and satisfaction when purchasing halal cosmetics online. Strategic emphasis on satisfaction-building efforts can ultimately strengthen brand loyalty among Generation Z consumers in the competitive halal cosmetics market. Hence, understanding the factors that drive customer satisfaction and loyalty in online purchases is essential for halal cosmetic companies to develop effective retail strategies.

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Introduction

Halal cosmetics are a compelling research topic due to the growing number of factors that affect consumer intentions (Islam et al., 2025; Khan et al., 2020). The halal lifestyle has also been adopted as a way of life in various countries, including Indonesia (Juliana et al., 2022). This expansion presents a significant opportunity for the development of the Islamic economy, particularly the halal industry. Almunawar et al. (2025) reported that the halal industry comprises sectors whose products and services are deeply influenced by Islamic law, guided by values, consumer lifestyles, and business practices. Increasing awareness within the Muslim community further supports the growth potential of the halal industry for the consumption of halal products and services (Koswara & Herlina, 2025). In 2022, Muslims worldwide spent USD 2.29 trillion on various halal products, including food, cosmetics, pharmaceuticals, fashion, recreation, and tourism (Dinar Standard, 2023). Projections suggest that by 2027, this figure will rise to USD 3.1 trillion, with a compound annual growth rate (CAGR) of 4.8%.

Key sectors within the halal industry, such as food, cosmetics, pharmaceuticals, finance, tourism, and Islamic media, are expected to play a pivotal role in this growth (Dinar Standard, 2023). Among the various sectors within the halal industry, halal cosmetics stands out as a sector with promising developments. Halal cosmetics are products derived from halal ingredients and manufactured in adherence to the halal system, serving the purpose of beautifying, cleansing, and protecting the face and body (Sugibayashi et al., 2019). The distinctiveness of halal cosmetics can be attributed to three main factors: the ingredients used, manufacturing processes, and marketing strategies (Utami & Genoveva, 2020). These products are perceived as safer by both Muslim and non-Muslim consumers, leading to a preference for halal cosmetics over conventional alternatives (Mohezar et al., 2016). Additionally, halal cosmetics prioritize Sharia compliance throughout the entire production process until they reach consumers (Aoun & Tournois, 2015).

In 2022, global Muslim consumers increased their spending on halal cosmetics by 14.3%, reaching USD 84 billion, up from USD 74 billion in the previous year. Projections indicate that this spending will continue to rise, reaching USD 129 billion in 2027 with an annual cumulative growth rate of 8.9% (Dinar Standard, 2023). This upward trend in consumer spending presents an opportunity for halal cosmetic companies to sustain their growth. Indonesia is recognized as a leading consumer of halal cosmetics worldwide. According to Dinar Standard (2023), Indonesia ranks second in terms of the total consumption value of halal cosmetics, with a substantial market worth USD 8.4 billion. Furthermore, the Indonesian Halal Economic Report (2021) forecasts an annual growth rate of 8% in the halal cosmetics industry by 2025. According to the APJII report (2022), Indonesia has seen a continual increase in Internet users, rising from 175 million in 2019 to 220 million by 2022, largely driven by the COVID-19 pandemic's effects over the past two years. The number of online consumers in Indonesia is projected to reach 65 million in 2022, up from 20 million in 2017 (Nurhayati-Wolff, 2022). With a total population exceeding 270 million, Indonesia is recognized as one of the world's largest online markets (Nurhayati-Wolff, 2022). A survey by APJII (2022) highlighted that beauty products are the second most frequently purchased items online by Indonesian consumers. These changing

consumer preferences towards online shopping necessitate that halal cosmetic companies adapt their product marketing strategies to remain competitive in this evolving landscape.

Extensive research indicates that customer satisfaction is the foremost determinant of customer loyalty (Cheng et al., 2019; Jeong & Lee, 2010). Other studies have also found that the most influential factor in shaping customer loyalty is customer satisfaction (Fianto et al., 2020). Customer satisfaction, when met, significantly impacts a company's profitability (Ilieska, 2013) and prompts satisfied customers to advocate for a product (Mustikawati et al., 2022). Customer satisfaction can be understood as a brand's ability to meet or exceed consumer expectations. Higher customer satisfaction is achieved when perceived product or service quality surpasses consumer expectations, leading to increased customer loyalty (Toufaily et al., 2013). Several factors contribute to customer satisfaction, including overall product quality, perceived value (Hult et al., 2018), and perceived risk (Johnson et al., 2008; Khasbulloh & Suparna, 2022), all of which stem from consumer assessment. Consequently, brands must prioritize customer satisfaction because contented consumers are more likely to make repeat purchases (Davras & Caber, 2019).

This research focuses on Generation Z as the subject of study, as this generation holds immense potential as current and future consumers. Generation Z, raised in an era of rapid technological advancement and Internet proliferation, possesses superior tech-savviness compared to other generations, making them avid proponents of online shopping over traditional retail (Akroush & Mahadin, 2022). According to the Central Bureau of Statistics of Republic of Indonesia (BPS) survey (2020), Generation Z dominates Indonesia, comprising 27.74% of the total population, amounting to 74.93 million individuals. This presents a unique opportunity for halal cosmetic companies to target Generation Z consumers to fulfill their needs. Generation Z encompasses those born between 1995 and 2010, currently aged between 12 and 27 years (Nandhakumar, 2019). The ZAP Beauty Index (2020) survey reveals that Generation Z women allocate a significant portion of their income to beauty products. Moreover, research by Schlossberg (2016) emphasizes Generation Z's focus on the experiential aspects of product purchases. This generation is known for having high expectations and displaying less brand loyalty, making it prone to switching brands (Agrawal, 2022; Sudirjo et al., 2023). Therefore, comprehensively studying Generation Z's behavior that influences their satisfaction and its subsequent impact on consumer loyalty, particularly in the context of halal cosmetics becomes imperative.

Although customer loyalty has been a recurrent topic in marketing research, comprehensive investigations into customer loyalty toward beauty products, especially halal cosmetic items (Suhartanto et al., 2020), remain limited. Previous studies have consistently highlighted customer satisfaction as a primary determinant of customer loyalty (Cheng et al., 2019; Jeong & Lee, 2010). Factors such as overall quality, perceived value, and perceived risk have been identified as key contributors to customer satisfaction (Hult et al., 2018; Tzavlopoulos et al., 2019). Furthermore, while several studies have explored the general influence of customer satisfaction on loyalty, limited attention has been paid to the specific mechanisms through which factors such as overall quality, perceived value, and perceived risk interact to influence satisfaction and, in turn, loyalty in the online halal cosmetics market. Additionally, there is a lack of focused research on how these relationships manifest among Generation Z Muslim women—an emerging consumer group with distinct behavioral patterns and digital engagement. This study introduces a

novel perspective by integrating consumer behavior theories with halal consumerism in the context of digital retail, offering a focused investigation into the intersection of religious compliance, online behavior, and generational characteristics. This approach provides new insights into how halal values and online experience shape satisfaction and loyalty dynamics in a highly competitive market segment.

Exploring the factors influencing customer loyalty within the context of online purchases is crucial for halal cosmetic companies as it informs effective strategies in online retail. Therefore, this study aims to investigate how overall quality, perceived value, and perceived risk, as precursors to customer satisfaction, influence customer loyalty towards halal cosmetic products among Muslim women in Generation Z through online purchasing channels. The findings of this study are expected to contribute significantly to both academic and practical domains. Academically, the research adds to the relatively scarce literature on halal consumer behavior in the digital retail context, especially among Generation Z. It expands the theoretical understanding of how product perceptions affect satisfaction and loyalty in an online halal framework. Practically, the insights generated can guide halal cosmetic companies in designing more effective online marketing strategies, product positioning, and customer engagement techniques tailored to the values and preferences of Generation Z. Furthermore, policymakers and halal certification bodies can use the findings to better align regulations and consumer education campaigns with evolving digital consumption trends, ultimately supporting the sustainable growth of the halal industry.

Hypotheses Development

Effect of Overall Quality of Halal Cosmetics on Customer Satisfaction

Research conducted by Hult et al. (2018) demonstrate a significant and positive correlation between overall quality and customer satisfaction when it comes to online shopping. Similarly, Ekasari et al. (2019) discovered that both product and service quality exhibit a significant and favorable relationship with customer satisfaction. Moreover, a study conducted by Syarifah and Ali (2020) affirms that the quality of halal cosmetics, which constitutes a part of overall quality, positively influences customer satisfaction. Customers gauge their satisfaction levels based on their experiences with products or services (Chen et al., 2012). Consequently, it is evident that overall quality plays a pivotal role in shaping the satisfaction levels of Generation Z Muslim women regarding halal cosmetic makeup products in the realm of online purchasing.

H_1: The overall quality of Halal Cosmetics exerts a significant and positive influence on customer satisfaction for halal cosmetics.

Effect of Perceived Value of Halal Cosmetics on Customer Satisfaction

Previous research has consistently demonstrated that perceived value serves as a determinant of customer satisfaction (El-Adly, 2019; Karjaluoto et al., 2019). Further supporting this notion, Kusumawati and Rahayu (2019) conducted a study that explored the relationship between perceived value and customer satisfaction, with their findings revealing a significant and positive impact of perceived value on customer satisfaction. Perceived value is considered favorable when the benefits derived from a product or service outweigh the sacrifices made by consumers (Abror et al., 2022). It is noteworthy

that perceived value encompasses not only functional aspects but also other dimensions, including spiritual values (Mustikawati et al., 2022). Consequently, when consumers perceive a product or service as providing high perceived value, they are more likely to experience satisfaction (Mustikawati et al., 2022). Therefore, perceived value plays a crucial role in shaping the satisfaction levels of Generation Z Muslim women with regard to halal cosmetic makeup products in the realm of online purchasing.
H2: Perceived value exerts a significant and positive influence on customer satisfaction with halal cosmetics.

The Effect of Perceived Risk of Halal Cosmetic on Customer Satisfaction

In this study, perceived risk refers to the uncertainty consumers face regarding potential losses if they are unable to anticipate the consequences or risks associated with their purchasing decisions (Tzavlopoulos et al., 2019). As the level of potential risk rises, it can lead to a decrease in customer satisfaction. This notion is supported by research conducted by Cheng and Jiang (2020) and Tzavlopoulos et al. (2019) both of whom identified a negative and statistically significant relationship between the perception of risk and customer satisfaction. However, it is worth noting that Suroso and Wahjudi (2021) also investigated the impact of risk perception on customer satisfaction and found a negative relationship, though it was not statistically significant.
H3: Perceived risk exerts a significant negative influence on customer satisfaction with halal cosmetics.

Effect of Customer Satisfaction of Halal Cosmetics on Customer Loyalty

Consumer satisfaction arises when a product surpasses expectations (Devi & Yasa, 2021). Research conducted by Suhartanto et al. (2020) elaborated on the significant positive relationship between customer satisfaction and loyalty in the context of halal cosmetics. When consumers experience high-quality halal cosmetic products, their satisfaction is elevated, leading to a willingness to repurchase and recommend these products to others (Suhartanto et al., 2020). Naini et al. (2022) revealed a strong and significant correlation between product quality, customer satisfaction, and loyalty. The results suggest that enhancing product quality boosts customer satisfaction, which strengthens consumer loyalty. This underscores the critical role of product quality improvement in driving customer satisfaction and fostering long-term loyalty. This sentiment is reinforced by Mandili et al. (2022), whose study also revealed that customer satisfaction has a positive and significant influence on the intention to repurchase halal cosmetics, serving as a clear indicator of customer loyalty.
H4: Customer satisfaction exerts a significant influence on customer loyalty to halal cosmetics.

Method

Research Design, Sample, and Setting

This study employs a quantitative survey design. In this study, the types and sources used were primary and secondary data. The primary data used as a source in this research come from questionnaires distributed to respondents whose criteria have been determined

(purposive sampling), which will be distributed online. The secondary data used in this study comes from previous research, reports, documentation, books, news, and other literature that supports this research. The respondent criteria were Generation Z female Muslims who experienced with halal cosmetics online purchasing. They have more than once experienced buying and using makeup products, such as halal cosmetics, in official stores in online purchase media at least the last year.

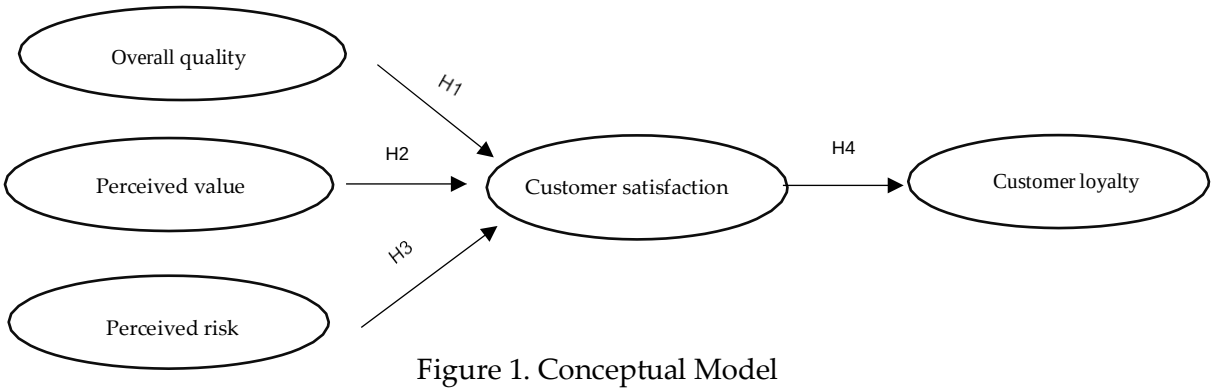

Figure 1. Conceptual Model

The number of samples used in this study was adjusted to the analytical method used, namely the Structural Equation Model (SEM). The number of respondents in this study was 215. According to Hair (2014), the number of samples depends on the number of indicators in the study multiplied by 5 to 10. In this study, 27 indicators were used. Based on these provisions, the minimum sample size that must be collected is 135. In this study, the analytical technique used is Structural Equation Model (SEM) to measure the relationship between overall quality, perceived value, perceived risk to customer satisfaction, and customer satisfaction to customer loyalty. We used an SEM test to identify the strength of the indicators of the research variables. The hypothesis testing carried out in this study used an SEM approach based on partial least squares (PLS). SEM-PLS can be used on small and large samples, but can still be measured accurately (Hair et al., 2014).

Validity Testing

This validity assessment served the purpose of evaluating whether each question within the questionnaire effectively measured the constructs under investigation. Convergent validity examines the degree to which a measurement aligns positively with alternative measures of the same construct (Hair et al., 2014). It is imperative that items designated as indicators or measures of a specific construct exhibit convergence, indicating a substantial proportion of shared variance (Hair et al., 2014). Convergent validity can be assessed using two distinct approaches. First, the convergent validity test may involve evaluating loading factor values exceeding 0.70 and Average Variance Extracted (AVE) values surpassing 0.5 (Hair et al., 2014). This approach ensures that the measurement items consistently capture the essence of the underlying construct. Second, the discriminant validity test is employed by examining the Fornell-Larcker criterion for each indicator. This involves comparing the square root of the AVE with the correlations between constructs within the model (Hair et al., 2014). This procedure safeguards against issues of multicollinearity and helps confirm that the measurement items are distinct from one another, capturing unique facets of the constructs under investigation.

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Reliability Testing

Reliability tests serve the purpose of assessing the consistency of measuring instruments and the uniformity of respondents' responses to research instrument questions. Two key parameters employed for reliability testing are Cronbach's alpha and composite reliability, both of which offer an estimate of the measurement's reliability by considering the correlations among observed indicator variables. In this study, it is crucial that both composite reliability and Cronbach's alpha exceed the threshold of 0.6. Composite reliability values falling below 0.60 indicate a lack of internal consistency reliability. This threshold ensures that the measurement instrument consistently captures the underlying construct and minimizes measurement errors, thereby enhancing the overall reliability of the findings.

Hypothesis Testing

The study tested a sample of 215 respondents to assess the direction and significance of the relationships between variables using p-values. An original sample value close to +1 has a positive relationship, and a value close to -1 has a negative relationship. The t-statistic value is more significant than 1.96, and the p-value is smaller than the 0.05 significance level, indicating that the relationship between variables is significant (Hair et al., 2014).

Results

Characteristics of Respondents

The total number of respondents in this study was 215 (see Table 1), grouped by age, education, province, and income. The participants of the study were dominated by two groups of respondents in the age group of 20-23 years. The second highest age is 24-27 years old, and the least is 12-15 years old. This age distribution reflects the concentration of the study on the core segment of Generation Z that is actively engaged in higher education or early career stages, aligning with the generation's growing purchasing power and affinity for beauty products. In the education group, most respondents have an educational background of graduating from high school (47%), and the second most is a bachelor's degree (46%). This educational background suggests that the respondents are relatively well-educated and likely to be digitally literate, which is significant given the study’s focus on online consumer behaviour. A small portion of the respondents held associate degrees (6%) or junior high school qualifications (1%), while none had only elementary school education, further reinforcing the profile of a digitally engaged and informed consumer base.

Regarding geographic distribution, the majority of respondents resided in East Java (69%), followed by West Java (20%), and DKI Jakarta (8%). A small fraction came from other provinces, including Pontianak, Bima, Jambi, Bali, and Bengkulu (3%). This geographic spread, while concentrated in Java, indicates the prominence of urban and semi-urban Muslim populations in shaping the halal cosmetic market. It also implies potential regional differences in consumer behavior, access to products, and digital commerce infrastructure. In terms of occupation, most respondents (72%) were students, while 13% were private-sector employees. Others included entrepreneurs (7%),

government employees (4%), and a small portion categorized as "others" (4%), such as homemakers and job seekers. This occupational distribution highlights the influence of student communities as primary drivers of halal cosmetic consumption trends, particularly in digital spaces and online purchasing stores. Their role as trendsetters and early adopters underscores the strategic importance of targeting students in marketing initiatives.

The income group data reveals that nearly half of the respondents (49%) had monthly incomes below IDR.1,000,000, followed by 27% earning between IDR.1,000,000–IDR.2,500,000. Only a minority earned over IDR.10,000,000 (6%). These figures suggest that most consumers in this study are low-to-middle income earners. Despite their limited financial resources, their significant engagement with halal cosmetics, especially through online platforms, may indicate a high level of product interest driven by values, peer influence, and social media exposure rather than disposable income alone. It also suggests that affordability and perceived value are likely crucial factors influencing customer satisfaction and loyalty within this market segment.

Table 1. Respondents Characteristics

Description and Characteristics		**Amount**	**Percentage**
Age	12-15	1	1%
	16-19	4	2%
	20-23	191	89%
	24-27	19	8%
	Total	**215**	**100%**
Education	Elementary School	0	0
	Junior High School	2	1%
	Senior High School	101	47%
	Associate Degree	12	6%
	Bachelor Degree	100	46%
	Total	**215**	**100%**
Province	East Java	149	69%
	West Java	43	20%
	DKI Jakarta	16	8
	Others	7	3%
	Total	**215**	**100%**
Occupation	Students	154	72%
	Private Employees	29	13%
	Government Employees	8	4%
	Businessman	16	7%
	Others	8	4%
	Total	**215**	**100%**
Income	<IDR.1.000.000	105	49%
	IDR.1.000.000 – IDR.2.500.000	59	27%
	IDR.2.500.000 – IDR.5.000.000	39	18%
	>IDR.10.000.000	12	6%
	Total	**215**	**100%**

Results of Validity and Reliability Tests

The correlation matrix in Figure 2 shows the outer model that explains each research variable: overall quality, perceived value, perceived risk, customer satisfaction, and customer loyalty. This outer model analysis aims to determine the validity and reliability of each indicator for each variable.

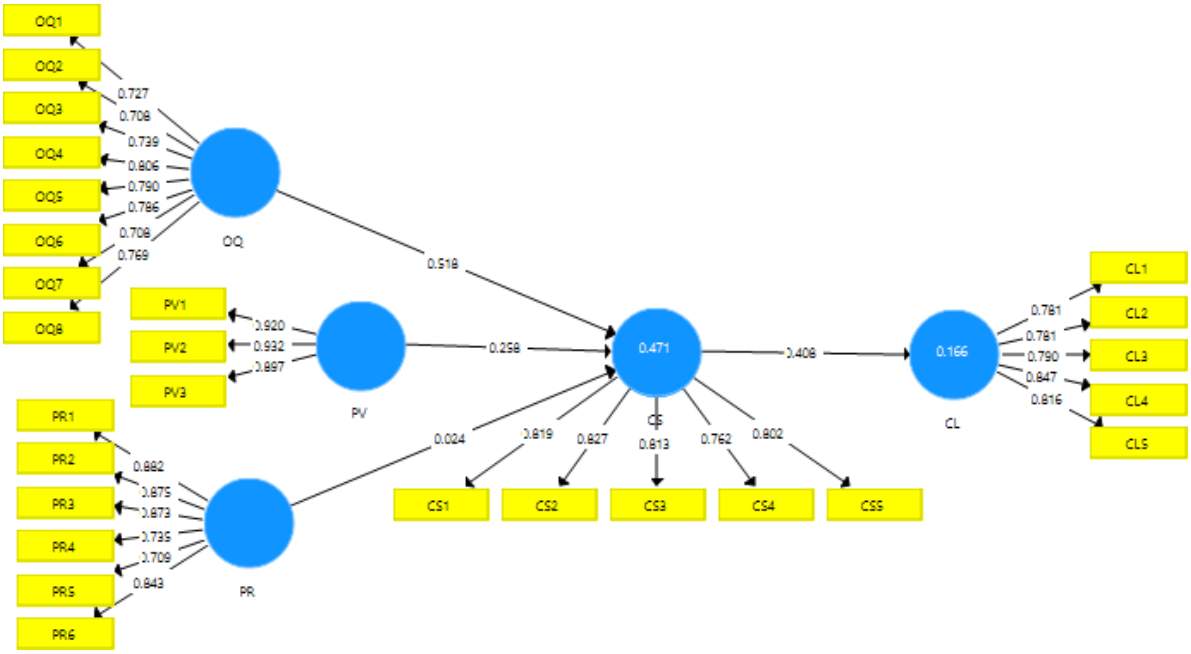

Figure 2. Measurement Model

The convergent validity test is measured using the loading factor and Average Variance Extracted (AVE). Table 2 presents the results of convergent validity tests. Each indicator of the overall quality, perceived value, perceived risk, customer satisfaction, and customer loyalty, totalling 27 indicators, shows a loading factor > 0.7. From these results, it can be concluded that all the indicators of each variable are convergently valid. This means that each variable in this study could be measured accurately.

Table 2. Convergent Validity Test Result (Loading Factor)

	Customer Loyalty	Customer Satisfaction	Overall Quality	Perceived Risk	Perc. Value	Validity
Customer Loyalty 1	0.781					Valid
Customer Loyalty 2	0.781					Valid
Customer Loyalty 3	0.790					Valid
Customer Loyalty 4	0.847					Valid
Customer Loyalty 5	0.816					Valid
Customer Satisfaction 1		0.819				Valid
Customer Satisfaction 2		0.827				Valid
Customer Satisfaction 3		0.813				Valid
Customer Satisfaction 4		0.726				Valid

	Customer Loyalty	Customer Satisfaction	Overall Quality	Perceived Risk	Perc. Value	Validity
Customer Satisfaction 5		0.802				Valid
Overall Quality 1			0.727			Valid
Overall Quality 2			0.708			Valid
Overall Quality 3			0.739			Valid
Overall Quality 4			0.806			Valid
Overall Quality 5			0.790			Valid
Overall Quality 6			0.786			Valid
Overall Quality 7			0.708			Valid
Overall Quality 8			0.798			Valid
Perceived Risk 1				0.882		Valid
Perceived Risk 2				0.875		Valid
Perceived Risk 3				0.873		Valid
Perceived Risk 4				0.735		Valid
Perceived Risk 5				0.709		Valid
Perceived Risk 6				0.843		Valid
Perceived Value 1				0.920		Valid
Perceived Value 2				0.932		Valid
Perceived Value 3				0.847		Valid

Table 3 also shows an AVE value greater than 0.5. This shows that all indicators used in this study are convergently valid, as can be seen from the results of the AVE value. This means that the respondents understood each indicator or question following the items' intent.

Table 3. Convergent Validity Test Result (AVE)

Average Variance Extracted (AVE)		Validity
CL	O.646	Valid
CS	0.648	Valid
PQ	0.570	Valid
PR	0.677	Valid
PV	0.840	Valid

Notes: CL= Customer Loyalty; CS= Customer Satisfaction; PQ= Perceived Quality; PR= Perceived Risk; PV= Perceived Value

Discriminant validity is part of the correlation matrix and can be seen in the outer model (see Table 4), which can be measured by examining the *Fornell larcker*. Suppose the correlation value of each indicator of the partner variable is higher than that of the other variables. In this case, it is declared to have passed the discriminant validity test because it proves that the construct can predict its indicators better than the other constructs.

Table 4 further shows that the results show all Fornell larcker values, namely square root *AVE* correlation between other constructs in the model, which means that it follows the outer model requirements. In other words, the correlation value of each indicator of its partner variable is higher than that of the other variables.

Table 4. Discriminant Validity Test Result (*Fornell Larcker*)

	CL	CS	PQ	PR	PV
CL	0.804				
CS	0.408	0.805			
PQ	0.436	0.651	0.755		
PR	0.122	0.099	0.124	0.823	
PV	0.312	0.526	0.527	0.226	0.916

Notes: CL= Customer Loyalty; CS= Customer Satisfaction; PQ= Perceived Quality; PR= Perceived Risk; PV= Perceived Value

The reliability test in this study can be seen from the construct reliability test and composite reliability. The construct reliability test can be measured by looking at the Cronbach's alpha value, while observing the composite reliability value for composite reliability. Below are the results of the composite construct and reliability tests. Table 5 shows that all Cronbach's alpha and composite reliability values were > 0.7. This shows that the research instrument used in this study was reliable. From a series of validity and reliability tests, it can be concluded that this study is valid and reliable. Thus, it can advance to the next stage of testing, that is, the inner model test.

Table 5. Construct Reliability and Composite Reliability Test Results

	Cronbach Alpha	CompositeReliability	Reliability
OQ	0.846	0.878	Reliable
PV	0.864	0.867	Reliable
PR	0.893	0992	Reliable
CS	0.923	0.978	Reliable
CL	0.905	0.910	Reliable

Notes: CL= Customer Loyalty; CS= Customer Satisfaction; PQ= Perceived Quality; PR= Perceived Risk; PV= Perceived Value

Results of Hypotheses Test

Based on Table 6, the results of hypotheses testing are statistically determined. First, the effect of overall quality on customer satisfaction has t-statistics of 7.003, which is greater than 1.96, p-values of 0.00, which is smaller than 0.05, and an original sample of 0.518. It indicates that overall quality has a significantly positive effect on customer loyalty. Thus, it can be concluded that overall quality has a significant positive effect on customer satisfaction, so Hypothesis 1 can be accepted. Second, the effect of perceived value on customer satisfaction had t-statistics of 3.787, greater than 1.96, *p-values* of 0.00, smaller than 0.05, and an original sample size of 0.258. These results indicate that

perceived value has a significantly positive effect on customer satisfaction. Thus, it can be concluded that perceived value has a significant positive effect on customer satisfaction, so hypothesis 2 can be accepted. Third, the effect of perceived risk on customer satisfaction has t-statistics of 0.227, smaller than 1.96, p-values of 0.782, greater than 0.05, and an original sample of 0.024. Thus, it can be concluded that perceived risk has no significant effect on customer satisfaction, so Hypothesis 3 is rejected. Fourth, the effect of customer satisfaction on customer loyalty had t-statistics of 6.749, greater than 1.96, p-values of 0.00, smaller than 0.05, and an *original sample* of 0.408. Thus, the conclusion is that customer satisfaction can have a significant positive effect on customer loyalty, so Hypothesis 4 can be accepted.

Table 6. Hypothesis Testing Results

	Original Sample (O)	**T-Statistics (O/STDEV)**	**P-Value**	**Description**
Overall quality -> Customer satisfaction	0.518	7.003	0.00	Significant
Perceived value -> Customer satisfaction	0.258	3.787	0.00	Significant
Perceived risk -> Customer satisfaction	0.024	0.227	0.782	Not Significant
Customer satisfaction -> Customer loyalty	0.408	6.749	0.0	Significant

Discussion

The findings of this research, which focuses on Muslim Women in Generation Z as the subject, have yielded significant insights into the relationship between various variables in the context of halal cosmetic makeup products within online stores. The results unequivocally signify that the overall quality variable has a substantial and positive influence on customer satisfaction at online halal cosmetic makeup stores. This underscores the principle that a higher overall quality of Halal cosmetic makeup products corresponds to elevated customer satisfaction (Kusumawati & Rahayu, 2020). Additionally, it validates the consensus among Generation Z Muslim women consumers that the quality assessment of halal cosmetic makeup products and online services significantly affects customer satisfaction (Agrawal, 2022). These findings align harmoniously with prior research, which asserts that overall quality plays a pivotal role in shaping customer satisfaction in the domain of online purchases (Hult, 2018). They reflect the characteristics of Generation Z, as highlighted in the IBM Institute for Business Value report (2017), emphasizing the importance Generation Z places on product quality when making purchase decisions. Furthermore, Kim et al. (2021) suggest that Generation Z favors contactless services, a trend that Halal Cosmetic has adeptly implemented online, offering features like virtual try-on, online consultations, and comprehensive online catalogs. These features appeal to Generation Z Muslim women, enhancing their preference for online makeup purchases of halal cosmetics.

Concerning the relationship between perceived value and customer satisfaction, the results highligts the compelling link between perceived value and customer satisfaction with halal cosmetic makeup products in online stores. In essence, they affirmed that a higher perceived value attached to halal cosmetic products corresponds to heightened

customer satisfaction. This highlights the consensus among Generation Z Muslim women consumers that the perceived value of their purchases from online halal cosmetic stores significantly influences their satisfaction levels (Nandhakumar, 2019). These findings are substantiated by prior research, notably the work of Abror et al. (2022), which posits that when consumers perceive high value for a particular product or service, their satisfaction is bolstered. Similarly, Hult et al.'s (2018) research reinforces this concept by emphasizing the positive influence of perceived value on customer satisfaction. These insights resonate with the characteristics of Generation Z, as outlined by Albari and Kartikasari (2019), highlighting the importance of price considerations in their online purchases. Generation Z consumers often compare product prices when shopping online and exhibit greater loyalty when rewarded with incentives or free products from a brand (Sudirjo et al., 2023). The findings are further supported by the IBM Institute for Business Value (2017) report, which underscores how promotions and discounts provided by brands enhance the perceived value for Generation Z consumers. In summary, these results emphasize that Generation Z's satisfaction with halal cosmetic products and services hinges on their perceived value, highlighting the intertwined relationship between these factors.

The relationship between perceived risk and customer satisfaction indicates that for Generation Z Muslim female consumers, perceived risk does not significantly influence satisfaction with online halal cosmetic makeup stores. This argument is consistent with Octaviani and Gunawan (2018) as well as Bernarto et al. (2022), which suggest that perceived risk may not always act as a barrier in digital purchasing, especially when consumers are confident in the brand and platform. In the context of halal cosmetics, factors such as strong brand reputation, halal certification, and transparent product information likely reduce concerns about authenticity, safety, or religious compliance (Khasbulloh & Suparna, 2022; Tzavlopoulos et al., 2019). Generation Z's familiarity with online shopping, reliance on peer reviews, and ability to access product information may further minimize perceived risks. Meanwhile, this finding is in contrast with Johnson et al. (2008), who found that perceived risk negatively affected satisfaction, this study suggests otherwise. For Generation Z Muslim women, trust in the brand and positive past experiences appear to outweigh perceived risks, highlighting their confidence and digital competence in navigating online halal cosmetic purchases (Kim et al., 2022). Given the strong reputation of halal cosmetics and customers' positive past experiences, the perception of risk does not dampen satisfaction levels during online purchases.

Finally, the relationship between customer satisfaction and customer loyalty indicates that the customer satisfaction variable exerts a substantial and positive influence on customer loyalty toward halal cosmetic makeup products. In essence, higher customer satisfaction with halal cosmetic products and services translates into heightened customer loyalty. These findings support the consensus among Generation Z Muslim women consumers that their satisfaction, driven by the quality of halal cosmetic makeup products and services, significantly shapes their loyalty (Cheng et al., 2019; Othman et al., 2019). These results align with prior research across various sectors, such as the work of Kusumawati and Rahayu (2019) and Rokhman (2020), which emphasize the positive impact of customer satisfaction on customer loyalty. Specifically, within the halal cosmetics sector, Suhartanto et al. (2020) assert that customer satisfaction fosters customer loyalty, while Rokhman (2020) confirms this phenomenon in the banking sector. Consequently, the findings of this study point out the pivotal role of customer satisfaction

in determining customer loyalty among Generation Z consumers. When consumers perceive that Halal cosmetic products and services exceed their expectations, they become loyal customers, make repeat purchases, and enthusiastically recommend Halal cosmetic online makeup stores to others (El-Adly, 2019). These findings resonate with the characteristics of Generation Z, as articulated by Schlossberg (2016), who found that this generation views the purchase experience as an integral aspect of product acquisition. By continually enhancing product quality and services, Generation Z's positive experiences are amplified, impacting customer satisfaction and enhancing customer loyalty.

In summary, this study uncovered profound insights into the complex relationships between variables in the context of Halal cosmetic makeup products in online stores. These findings provide valuable guidance for halal cosmetic and other halal cosmetic brands, offering strategic recommendations for improving the quality-of-service facilities in online stores to cater to Generation Z consumers. As the characteristics of Generation Z favor contactless services, these enhancements align with their preferences and are likely to foster greater customer loyalty to halal cosmetic products. Nonetheless, it is important to acknowledge the limitations of this research, including the exclusive focus on three antecedent variables and the distributional disparities among respondents across Indonesian provinces. These limitations underscore the potential for future research to expand and provide a more comprehensive understanding of consumer behavior in this domain.

Conclusion

This study revealed several significant findings regarding the impact of various factors on customer satisfaction and loyalty within the context of halal cosmetic products in the online purchasing medium. Specifically, it is evident that both overall quality and perceived value exert a substantial and positive influence on customer satisfaction. Furthermore, customer satisfaction has been identified as a crucial driver that significantly enhances customer loyalty. Conversely, perceived risk does not exhibit any noteworthy effect on customer loyalty. Based on these findings, halal cosmetic brands should enhance and expand their online service quality to improve consumer satisfaction. This enhancement can encompass features such as accessible consultation facilities staffed by beauty advisors available for chat, virtual try-on options, comprehensive product catalogs, incorporation of consumer testimonials, and provision of clear and informative product descriptions. Considering the preferences of Generation Z for contactless service, it is imperative for Halal cosmetics and similar brands to pay meticulous attention to their online store services, as these efforts can significantly contribute to increased customer loyalty to Halal cosmetic products.

While this study has contributed valuable insights to both academic research and practical applications, it is essential to acknowledge certain limitations. First, this research exclusively utilized three antecedent variables to explore customer satisfaction with halal cosmetics in the context of online purchasing among Generation Z consumers. Future research studies may expand on these variables and consider substituting those that did not demonstrate significance in this study with other potential antecedents of customer satisfaction within the domain of halal cosmetics. Second, this study collected responses from respondents across Indonesia; however, the distribution of respondents was not

uniformly balanced across all provinces within the country. This asymmetry can be addressed in subsequent research to provide a more comprehensive and representative view of the consumer landscape.

Authors' Declaration

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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