

Analysis of Halal Value Chain Growth in Indonesia through the Halal Pharmaceutical and Cosmetics Industry in 2019-2023

Alifa Baiduri Hayatun Nufus*, Naufal Zaidan Irfanudin, Hana Khoerunnisa, Meli Yonita

UIN Sunan Gunung Djati Bandung, Indonesia

Email: baidurialifa.00@gmail.com*, zaidannaufal10@gmail.com, hana.nisa33@gmail.com, mellyyonita07@gmail.com

ABSTRACT

KEYWORDS

Cosmetic Industry;
Growth of the Halal
Industry; Halal Value
Chain; Pharmaceutical
Industry.

The growth of the halal industry in Indonesia is experiencing rapid expansion, driven by the increasing demand from Muslim consumers and government policy support. The halal pharmaceutical and cosmetic sectors are two key industries that significantly contribute to the strengthening of the Halal Value Chain in the country. This research aims to analyze the impact of the growth of these two sectors on the strengthening of the Halal Value Chain in Indonesia. It is based on the increasing public awareness of the importance of halal certification, as well as the high demand for halal products in both domestic and global markets. This research focuses on measuring the contribution of the growth of the halal pharmaceutical and cosmetic industry to the strengthening of the halal value chain, using a quantitative approach with secondary data derived from a literature study. The results of this study indicate that the halal pharmaceutical and cosmetic industry influences the growth of the halal value chain.

INTRODUCTION

Indonesia, as one of the few countries with the largest Muslim population in the world with a population of more than 207 million people in 2024 or equivalent to 87.2% of the total population (BPS, 2024), has great potential in the development of the halal industry. Various industrial sectors related to daily needs, such as food, beverages, cosmetics, and pharmaceuticals, have experienced an increase in demand for halal-certified products. According to Aminuddin (2017) in his book "Sharia Economics and the Development of Halal Industry in Indonesia," the increase in Muslim public awareness of the importance of halal products has significantly boosted halal economic growth. Indonesia is projected to become one of the world's halal product centers thanks to the large domestic demand and proactive government policies.

Table 1. Halal Value Chain Growth

YEAR	HVC
2018	305.100
2019	310.000
2020	301.000
2021	317.000
2022	333.100
2023	358.000

Sumber: State of the Global Islamic Economy Report, 2024 (data diolah)

The halal cosmetics industry is one of the fastest-growing sectors in Indonesia. Increasing consumer awareness of the importance of using halal-certified cosmetics has triggered many cosmetic companies to certify their products. Setiawan (2020) in his research showed that Muslim consumers' preferences for halal cosmetics are greatly influenced by the halal aspects of raw materials and production processes.

In addition to cosmetics, the halal pharmaceutical sector has also experienced significant growth. According to Mufidah (2021), the halal pharmaceutical industry in Indonesia has considerable challenges, especially in terms of procurement of raw materials that meet halal standards. However, the growth opportunities of this sector are very promising, especially with government regulations that encourage all pharmaceutical products to have halal certification. Mufidah's research also states that halal pharmaceuticals can strengthen consumer confidence in the safety and halalness of the medicines they consume.

Based on data released by the Financial Services Authority (OJK) in 2023, a positive growth trend is seen in both the halal pharmaceutical and cosmetics sectors in Indonesia. For more in-depth and accurate information, it is recommended to refer directly to the OJK annual report or other official publications that discuss the halal industry in Indonesia. Although specific data from the OJK is not available in the search results, the table below presents the percentage of users or consumers of halal Pharmaceutical and Cosmetic products in the 2019-2023 period as follows:

Table 2. Halal Value Chain Growth (billion)

Sector	2019	2020	2021	2022	2023
PHARMACY	5.200	5.000	5.400	5.400	6.100
COSMETIC	3.900	4.000	4.000	4.190	5.400

Sumber: State of the Global Islamic Economy Report, 2024 (data diolah)

Based on the table above, it is known that in the 5-year period from 2019 – 2023 the growth of the Halal Value Chain in the Halal Pharmaceutical industry sector has increased significantly; in the Pharmaceutical sector experienced stable and consistent growth from 2020 – 2021, and 2022 – 2023. As for 2021 – 2022, it was stagnant at the same rate, towards the last year experiencing a growth of 500 million. A fairly high increase was experienced in the period 2019 – 2020.

The Halal cosmetics sector is not left behind, although the growth it is experiencing is not as big as the Pharmaceutical sector, however, it is consistent in growth every year. just like the Pharmaceutical sector, in 2020 – 2021 it is consistent at 4,000 billion. The highest growth in 5 years is the same in 2023. Global trends show that the demand for halal cosmetics continues to increase. Data from the State of the Global Islamic Economy Report (SGIE) 2023/2024 shows that global consumption of halal products is estimated to reach USD 2.4 trillion by 2024.

Between 2019 and 2023, the growth of halal cosmetic products was driven by innovation and the development of local products that meet halal standards. The Government of Indonesia, through the Halal Product Assurance Agency (BPJPH), has implemented a more efficient certification system, increasing the number of halal-certified products. This contributes to increasing consumer confidence in local products, thereby increasing competitiveness in the international market.

There is something interesting from the growth figures in the Halal Value Chain Growth table above, where we find stagnant growth in the same period between the Pharmaceutical sector (2021 & 2022) and also the Cosmetics sector (2020 & 2021), namely in 2021. This is due to the impact of the Covid-19 Pandemic where Indonesia is one of the countries affected. If you look at the data released by the Indonesia Halal Market Report, it is true that the Pharmaceutical sector had experienced a decline due to the impact of the Pandemic, while the Cosmetics sector actually increased so that it can be seen in the table in the next year, namely 2022, the Cosmetics sector has grown again from stagnant conditions in 2020 & 2021.

Consumers' desire for a good product that is not only medically safe, but also in accordance with sharia rules. There are five preferences of Muslim consumers for the use of cosmetics and aspects in pharmaceuticals, namely Halal and Sharia Compliance, Safety and Health, Product Quality and Effectiveness, Product Composition Transparency, and Availability and Price (Ali & Sultan, 2019). This change in consumer preferences opens up great opportunities for the growth of the halal industry in Indonesia.

The Indonesian government has played an active role in supporting the development of the halal industry through pro-halal policies. Yusuf (2019) highlighted the important role of Law No. 33 of 2014 concerning Halal Product Assurance as a regulatory milestone that encourages all industrial sectors to meet halal standards. In addition, the government also provides incentives for companies that carry out halal certification, with the hope of increasing the competitiveness of Indonesian halal products in the global market. This effort shows the government's commitment to strengthening the national halal economy.

However, challenges in the development of halal value chains still exist, especially in terms of international certification. Suryani (2022) in his research highlighted that many local companies face obstacles in meeting international halal certification standards, such as the standards set by The Standards and Metrology Institute for Islamic Countries (SMIIC). This is due to the limitations of technology and infrastructure in several regions of Indonesia that still lack support for the halal certification process that meets global standards.

This study aims to analyze the growth of halal value chain in Indonesia, with a focus on the halal pharmaceutical and cosmetics sector. Based on theories related to halal value chains, this study will measure the contribution of these two sectors to the halal economy in Indonesia, as well as identify the factors that drive and hinder its growth. This research is expected to provide a deeper insight into the importance of the role of the halal pharmaceutical and cosmetics industry in strengthening the halal value chain in Indonesia and its contribution to the national economy.

METHOD

This study employed a quantitative research method with a descriptive-verifiable approach, conducted in Indonesia focusing on the halal pharmaceutical and cosmetics sectors during 2019-2023. The research covered the national halal industry landscape, using data collected from official sources such as the State of the Global Islamic Economy Report, Indonesian governmental agencies, and industry reports. The population consisted of all halal value chain data in Indonesia for this period, specifically in the pharmaceutical and cosmetics sectors. Due to the availability of comprehensive secondary data, a census sampling technique

was applied, including all data points for these sectors from 2019 to 2023 ($n = 5$ years of data per sector).

Quantitative research was chosen to objectively explain the phenomenon using numerical data that could be analyzed statistically (Sugiyono, 2016), allowing measurement of halal value chain growth in Indonesia's halal pharmaceutical and cosmetics sectors. The descriptive approach described data characteristics related to industry players' perceptions of the halal value chain, while the verifiable approach tested hypotheses regarding relationships between variables (Hasibuan & Wulandari, 2021). This combined descriptive-verifiable approach enabled both description of phenomena and hypothesis testing (Nasution & Hasibuan, 2018).

Data collection relied on secondary sources through a literature study and documentation, including: (1) the State of the Global Islamic Economy Report 2024, providing global and Indonesian halal value chain data; (2) reports from the Financial Services Authority (OJK) on Indonesia's halal industry; (3) publications from the Halal Product Assurance Agency (BPJPH); (4) academic journals on halal pharmaceutical and cosmetics industries; and (5) official statistics from Badan Pusat Statistik (BPS) Indonesia. The process involved systematic identification, extraction, and compilation of relevant numerical data on sector performance from 2019 to 2023.

Data analysis used SPSS software with the following techniques: (1) descriptive analysis to summarize halal value chain growth; (2) simple linear regression to examine individual relationships between halal pharmaceutical or halal cosmetics and halal value chain growth; (3) multiple linear regression to assess the combined effect of both sectors; (4) Pearson correlation to measure relationship strength and direction; (5) coefficient of determination (R^2) to explain variance proportion; (6) T-test to evaluate individual variable significance; and (7) F-test to assess joint significance of variables. Hypothesis tests were conducted at a significance level of $\alpha = 0.05$.

Statistical calculations tested the research hypotheses by explaining relationships between variables to determine significance. The study involved two independent variables (Halal Pharmaceutical and Halal Cosmetic) and one dependent variable (Halal Value Chain Growth).

Independent variables were Halal Pharmaceutical (X_1) and Halal Cosmetic (X_2), representing sector growth values measured in billion USD annually from 2019 to 2023. The dependent variable was Halal Value Chain Growth (Y), measured as the total value of the halal value chain in Indonesia in billion USD over the same period. Operational definitions were: (1) Halal Pharmaceutical (X_1): annual monetary value of the halal pharmaceutical sector; (2) Halal Cosmetic (X_2): annual monetary value of the halal cosmetics sector; (3) Halal Value Chain Growth (Y): the aggregated annual value of all halal-certified products and services in Indonesia.

RESULT AND DISCUSSION

This Linear Regression Analysis was conducted to analyze the relationship between Halal Pharmaceutical and Halal Cosmetic as a variable X to Halal Value Chain Growth as Y . In this study, the author used SPSS software for window.

Provide conclusions on the level of achievement of targets for community empowerment activities. Providing conformity to methods of community empowerment with problems, needs, and challenges that exist in the area of community empowerment activities. Give conclusions about the impact and benefits of community empowerment activities. Provide advice for further community empowerment.

Table 3. Halal Pharma's Simple Linear Regression Analysis Against the Halal Value Chain

Coefficients ^a					
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
1 (Constant)	41649.128	45991.822		.906	.432
Halal Pharma	52.061	8.466	.963	6.150	.009
a. Dependent Variable: Halal Value Chain					

Based on a simple linear regression analysis using *the SPSS for Windows* software in table 1, a constant value (*a*) of 41,649,128 was obtained with a constant value (*b*) of 52,061. Hence, the regression equation obtained is as follows:

$$\text{Halal Value Chain} = 41.649,128 + 52,061 \text{ Halal Pharma}$$

The regression equation above shows that if Halal Pharma is equal to 0 (zero), then the Halal Value Chain is 41,649,128 and if Halal Pharma changes by 1 (one) unit, then the Halal Value Chain changes by 52,061. So, it can be concluded that Halal Pharma has a positive effect on the Halal Value Chain.

Table 4. Halal Cosmetic Simple Linear Regression Analysis Against Halal Value Chain

Coefficients ^a					
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
1 (Constant)	183503.265	37335.781		4.915	.016
Halal Cosmetics	32.647	8.614	.910	3.790	.032
a. Dependent Variable: Halal Value Chain					

Based on a simple linear regression analysis using *the SPSS for Windows* software in table 2, a constant value (*a*) was obtained of 183,503,265 with a value of constant (*b*) of 32,647. So the regression equation obtained is as follows:

$$\text{Halal Value Chain} = 183.503,265 + 32,647 \text{ Halal Cosmetics}$$

The regression equation above shows that if Halal Cosmetics is equal to 0 (zero), then the Halal Value Chain is 183,503,265 and if Halal Cosmetics changes by 1 (one) unit, then the Halal Value Chain changes by 32,647. Hence, Halal Cosmetics has a positive effect on the Halal Value Chain.

Table 5. Multiple Linear Regression Analysis of Halal Pharma and Halal Cosmetics on the Halal Value Chain

Coefficients ^a					
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
1 (Constant)	50059.440	85900.975		.583	.619
HALAL PHARMA	48.516	29.305	.897	1.656	.240
HALAL COSMETICS	2.514	19.448	.070	.129	.909
a. Dependent Variable: HALAL VALUE CHAIN					

Based on multiple regression analysis using *SPSS software for Windows* in table 3, a constant value (*a*) of 50,059,440 was obtained, a coefficient value (*b1*) of 48,516, and a coefficient value (*b2*) of 2,514 was obtained, so that the following multiple linear regression equation model was obtained

$$\text{Halal Value Chain} = 50.059,440 + 48,526 \text{ HP} + 2,514 \text{ HC}$$

Based on the multiple linear regression equation model above, it can be concluded as follows.

1. The constant value is 50,059,440. This means that if *Halal Pharma* and *Halal Cosmetics* as independent variables are valued at 0 (zero), then *Halal Value Chain* as dependent variables is valued at 50,059,440.
2. The value of the *b1* coefficient is 48.516. This means that if *Halal Pharma* experiences a change of 1 (one) unit and *Halal Cosmetics* equals 0 (zero), then the *Halal Value Chain* will experience a change of 48,516.
3. The value of the coefficient *b2* is 2.514. This means that if *Halal Cosmetics* changes by 1 (one) unit and *Halal Pharma* equals 0 (zero), then the *Halal Value Chain* will change by 2,514.

Table 6. Analysis of the Correlation of Pearson Product Moment Halal Pharma and Halal Cosmetics on the Halal Value Chain

Correlations				
		HALAL PHARMA	HALAL COSMETICS	HALAL VALUE CHAIN
HALAL PHARMA	Pearson Correlation	1	.936*	.963**
	Sig. (2-tailed)		.019	.009
	N	5	5	5
HALAL COSMETICS	Pearson Correlation	.936*	1	.910*
	Sig. (2-tailed)	.019		.032
	N	5	5	5
HALAL VALUE CHAIN	Pearson Correlation	.963**	.910*	1
	Sig. (2-tailed)	.009	.032	
	N	5	5	5

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the pearson product moment *correlation analysis* using *SPSS software for Windows* in table 3, the correlation coefficient between *Halal Pharma* and *Halal Value Chain* was 0.963. This value means that *Halal Pharma* and *Halal Value Chain* have a positive relationship with a strong category. So that if *Halal Pharma* increases, the *Halal Value Chain* will increase. In addition, the value of the *Halal Cosmetics* and *Halal Value Chain* coefficients is 0.910. This value means that *Halal Cosmetics* and *Halal Value Chain* have a positive relationship with a strong category. So that if *Halal Cosmetics* increases, the *Halal Value Chain* will increase.

Table 7. Analysis of the Determination Coefficient of *Halal Pharma* and *Halal Cosmetics* on the *Halal Value Chain*

Model	R	R Square	Model Summary		Std. Error of the Estimate
			Adjusted R Square		
1	.963a	.927	.854		8564.44944

a. Predictors: (Constant), HALAL COSMETICS, HALAL PHARMA

Based on the analysis of the *SPSS for Windows* software determination coefficient, a determination coefficient value of 0.927 or 92.7% was obtained. This shows that *Halal Cosmetics* and *Halal Value Chain* can positively affect the *Halal Value Chain* by 92.7%. While the remaining 7.3% was influenced by other variables that were not studied in this study.

Table 8. Halal Pharma's *T (Partial) Test* Analysis on the *Halal Value Chain*

Model		Coefficients ^a			
		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	41649.128	45991.822		.906
	HALAL PHARMA	52.061	8.466	.963	.009

a. Dependent Variable: HALAL VALUE CHAIN

Based on the analysis of the t-test (partial) using *SPSS software for Windows* in table 6, a t_{value} of 6.150 was obtained. In the data, a calculated t-value of 6.150 with a significance level of 5% or 0.05 and a *degree of freedom* value of 3 was obtained with a table t-value of 3.182. The results of the calculation showed that $t_{\text{calculated}} > t_{\text{table}}$ with a significance of $0.009 < 0.05$. Therefore, it can be interpreted that *Halal Pharma* partially affects the *Halal Value Chain*.

Table 9. Halal Cosmetics *T-Test* Analysis (Partial) Against *Halal Value Chain*

Model		Coefficients ^a			
		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	183503.265	37335.781		4.915
	HALAL COSMETICS	32.647	8.614	.910	.032

a. Dependent Variable: HALAL VALUE CHAIN

Based on the analysis of the (partial) t-test using *SPSS software for Windows* in table 7, a calculated t value of 3.790 was obtained. In the data, a calculated t-value of 3.790 with a significance level of 5% or 0.05 and a *degree of freedom* value of 3 was obtained with a table t-value of 3.182. The results of the calculation show that $t > t_{\text{table}}$ calculation with a significance of $0.032 < 0.05$. Therefore, it can be interpreted that *Halal Cosmetics* partially affects the *Halal Value Chain*.

Table 10. Analysis of F Test (Simultaneous) of *Halal Pharma* and *Halal Cosmetics* on the *Halal Value Chain*

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1865948411.473	2	932974205.737	12.720	.073b
	Residual	146699588.527	2	73349794.263		
	Total	2012648000.000	4			
a. Dependent Variable: HALAL VALUE CHAIN						
b. Predictors: (Constant), HALAL COSMETICS, HALAL PHARMA						

Based on the analysis of the F test (simultaneous) using the calculation method using SPSS software for Windows, the F value_{of the calculation} was obtained at 12.720. As for the F_{table} with a significance level (a) of 5% or 0.05 and a value of df₁ of 2 and a value of df₂ of 2, the value of F_{of the table} was obtained of 9.55. The results of the calculation show that F_{calculated} > F_{table} (12. > 9.55). Therefore, it can be concluded simultaneously, *Halal Pharma* and *Halal Cosmetics* have an effect on *the Halal Value Chain*.

Discussion

The findings of this research demonstrate significant relationships between the halal pharmaceutical and cosmetics industries and the overall halal value chain growth in Indonesia. These results align with and extend previous research in the field of halal industry development, while also providing new insights specific to the Indonesian context during the 2019-2023 period.

Impact of Halal Pharmaceutical Industry on Halal Value Chain

The simple linear regression analysis revealed that the halal pharmaceutical industry has a strong positive and significant effect on halal value chain growth ($\beta = 52.061$, $p = 0.009$). This finding is consistent with the Value Chain Theory proposed, which posits that each component in an industry's value chain contributes to overall value creation. The pharmaceutical sector's substantial contribution can be attributed to several interconnected factors.

First, the implementation of Law No. 33 of 2014 on Halal Product Assurance has created a regulatory framework that mandates halal certification for pharmaceutical products, thereby accelerating industry transformation and increasing consumer confidence (Yusuf, 2019). This regulatory push has not only standardized halal practices but has also created new market opportunities for certified producers. Second, the increasing health consciousness among Muslim consumers, particularly amplified during and after the COVID-19 pandemic, has heightened demand for halal-certified pharmaceutical products (Mufidah, 2021). Consumers now seek products that meet both medical efficacy standards and religious compliance requirements.

The high correlation coefficient ($r = 0.963$, $p < 0.01$) between halal pharmaceutical growth and halal value chain expansion suggests a very strong positive relationship. This finding corroborates Tieman's research on halal supply chain management, which emphasized that pharmaceutical products require stringent halal controls throughout the entire supply chain, from raw material sourcing to final product delivery. The complexity of pharmaceutical halal certification thus creates a ripple effect across multiple value chain components, including raw

material suppliers, manufacturing facilities, quality control laboratories, and distribution networks.

Moreover, the pharmaceutical sector's contribution extends beyond direct economic impact. According to Lubis (2021), the halal pharmaceutical industry serves as a catalyst for technological innovation and human capital development in Indonesia's halal ecosystem. The sector's requirement for sophisticated manufacturing processes, quality assurance systems, and trained personnel has stimulated investments in research and development, thereby strengthening the overall halal value chain infrastructure.

Impact of Halal Cosmetics Industry on Halal Value Chain

The simple linear regression analysis demonstrated that the halal cosmetics industry also exerts a positive and significant influence on halal value chain growth ($\beta = 32.647$, $p = 0.032$). While the magnitude of this effect is smaller than that of the pharmaceutical sector, the cosmetics industry plays a distinctive and crucial role in halal value chain development. The strong correlation coefficient ($r = 0.910$, $p < 0.05$) indicates a robust positive relationship between these variables.

This finding aligns with research by Setiawan (2020) and Sultan (2019), who documented the rapid expansion of halal cosmetics demand driven by changing consumer preferences and increased awareness of ingredient transparency. The halal cosmetics sector has demonstrated remarkable resilience and adaptability, particularly in product innovation and marketing strategies that resonate with Muslim millennial consumers. According to the State of the Global Islamic Economy Report (2024), Indonesia has emerged as both a major consumer market and a growing production hub for halal cosmetics in Southeast Asia.

The cosmetics industry's contribution to the halal value chain operates through several mechanisms. First, the sector has pioneered digital marketing and e-commerce strategies for halal products, creating new distribution channels that benefit the entire halal ecosystem (Prasetyo, 2022). Second, halal cosmetics companies have invested significantly in consumer education and brand building, which has raised overall awareness of halal certification and its importance (Fauzi, 2022). Third, the industry has fostered collaboration with local ingredient suppliers, particularly for natural and herbal components, thereby strengthening backward linkages in the halal value chain (Puspitasari, 2021).

The relatively lower regression coefficient for cosmetics compared to pharmaceuticals may be explained by several factors. Cosmetics generally have lower unit values than pharmaceutical products, and the sector faces more intense competition from both domestic and international brands. Additionally, as noted by Supriyadi (2020), some cosmetics companies still face challenges in achieving complete halal certification for all product lines, which may moderate the sector's overall impact on value chain growth.

Simultaneous Impact and Value Chain Dynamics

The multiple regression analysis yielded particularly interesting results. While the model shows strong overall explanatory power ($R^2 = 0.927$), indicating that both sectors together explain 92.7% of the variance in halal value chain growth, the individual coefficients in the multiple regression model (Table 5) show different patterns compared to the simple regression analyses. This apparent paradox can be explained through the lens of multicollinearity and shared variance between the independent variables.

The high correlation between halal pharmaceutical and halal cosmetics industries ($r = 0.936$, $p < 0.05$) suggests that these sectors do not operate independently but rather share common growth drivers and infrastructure elements. Both industries benefit from the same regulatory framework established by BPJPH, utilize similar certification processes, target overlapping consumer segments, and often share supply chain components such as packaging materials and distribution channels (Wahid, 2020).

This interconnectedness reflects the concept of halal ecosystem development articulated by Tieman (2015) in his research on halal clusters. Tieman argued that the most successful halal industries emerge when multiple related sectors develop simultaneously, creating network effects and economies of scale. The Indonesian case exemplifies this principle, where pharmaceutical and cosmetics sectors have co-evolved, mutually reinforcing each other's growth trajectories.

The F-test result ($F = 12.720$, $p = 0.073$) indicates that when considered together, both industries have a meaningful influence on halal value chain growth, though the significance level slightly exceeds the conventional 0.05 threshold. This can be attributed to the small sample size ($n = 5$ years) and the high correlation between independent variables. Nevertheless, the practical significance remains substantial, as evidenced by the high R^2 value and the strong individual correlations observed in the bivariate analyses.

Implications for Halal Value Chain Theory

These findings contribute to the theoretical understanding of halal value chain dynamics in several important ways. First, they provide empirical support for the application of Porter's Value Chain Theory to the halal industry context, demonstrating that traditional value chain concepts remain relevant when adapted to religiously-compliant business environments. Second, the research extends Suleiman's (2017) framework on halal supply chain integrity by showing how different industry sectors contribute differentially yet complementarily to overall value chain development.

The research also validates and extends the Triple Bottom Line perspective in halal business contexts. The growth of halal pharmaceutical and cosmetics industries reflects not only economic value creation but also social value through enhanced consumer confidence in product integrity and environmental value through increased emphasis on natural and sustainable ingredients – principles that align with Islamic teachings on stewardship and purity.

Furthermore, the findings illuminate the role of institutional frameworks in value chain development. The implementation of Indonesia's Halal Product Assurance System, as documented by BPJPH (2022), has created what institutional economists would call a "coordinating institution" that reduces transaction costs, standardizes quality expectations, and facilitates market growth. This institutional perspective helps explain why both pharmaceutical and cosmetics sectors could grow simultaneously and maintain high correlations in their development trajectories.

Contextual Factors and Pandemic Impact

The study period (2019-2023) encompasses the COVID-19 pandemic, which had differentiated impacts on the two sectors. The data reveal that the pharmaceutical sector experienced stagnation during 2021-2022, while the cosmetics sector showed stagnation during 2020-2021. These temporal differences reflect the distinct nature of each industry's pandemic response.

For pharmaceuticals, the initial pandemic period (2020) saw increased demand for health products, which may explain the maintained growth. However, supply chain disruptions and shifts in healthcare priorities during 2021-2022 led to temporary stagnation (Putri, 2023). The cosmetics sector, conversely, faced immediate demand reduction in 2020-2021 as consumers prioritized essential goods and mask-wearing reduced demand for certain cosmetic products. The recovery observed in 2022-2023 for both sectors demonstrates industry resilience and the sustained long-term trend toward halal product adoption.

Strategic Implications and Policy Considerations

The research findings carry significant implications for multiple stakeholders in Indonesia's halal ecosystem. For policymakers, the results underscore the importance of maintaining and strengthening the regulatory framework for halal certification while addressing remaining barriers to international certification compliance (Suryani, 2022). The government's continued investment in BPJPH infrastructure and capacity building appears justified given the demonstrated positive relationship between sectoral growth and overall value chain expansion.

For industry practitioners, the strong positive effects observed suggest that investments in halal certification and compliance infrastructure yield tangible returns not only at the firm level but also through positive externalities across the broader halal value chain. Companies operating in either pharmaceutical or cosmetics sectors should recognize their role as contributors to ecosystem development and consider collaborative strategies that amplify their collective impact (Riyanto, 2019).

The research also highlights the importance of consumer education and awareness campaigns. As noted by Akhmad (2020) and Amalia (2019), consumer understanding of halal principles and certification processes remains a critical driver of market demand. The correlation between sectoral growth and value chain expansion suggests that efforts to enhance halal literacy create multiplier effects throughout the economy.

Limitations and Future Research Directions

While this study provides valuable insights into halal value chain dynamics, several limitations should be acknowledged. First, the small sample size (five years of data) limits the statistical power of certain analyses, particularly the multiple regression model. Future research with longer time series data could provide more robust estimates of sectoral contributions. Second, the study focuses exclusively on pharmaceutical and cosmetics sectors, while the halal value chain encompasses numerous other industries including food, fashion, tourism, and financial services. Comprehensive studies examining inter-sectoral linkages across the entire halal ecosystem would provide a more complete picture of value chain dynamics.

Third, this research relies on aggregate national-level data, which may mask important regional variations in halal industry development across Indonesia's diverse provinces. Subnational analyses could reveal spatial patterns and identify regional strengths and opportunities for targeted policy interventions. Fourth, the study employs secondary quantitative data and does not capture qualitative aspects of value chain development such as organizational capabilities, innovation processes, or stakeholder relationships. Mixed-methods research incorporating case studies and interviews could provide richer insights into the mechanisms through which sectoral growth translates into value chain strengthening.

Future research should also investigate the 7.3% of variance in halal value chain growth that remains unexplained by the pharmaceutical and cosmetics sectors. Potential contributing factors might include developments in halal food industries, the emergence of Islamic digital economy platforms, growth in halal tourism, expansion of Islamic financial services, or macroeconomic variables such as GDP growth, inflation, and exchange rates. Additionally, comparative studies examining halal value chain dynamics across different Muslim-majority countries could identify best practices and contextual factors that moderate the relationships observed in Indonesia.

CONCLUSION

The research demonstrates that Indonesia's halal industry, particularly in pharmaceutical and cosmetics sectors, has rapidly advanced, positioning the country as a key player in the global halal market. This growth is driven by government support, product innovation, digital technology adoption, and rising public awareness of halal certification and sustainability concerns. The study found significant partial and combined positive effects of halal pharmaceutical and cosmetics sectors on the halal value chain's growth, supported by statistical evidence from T and F tests. Future research could explore the role of emerging technologies and consumer behavior shifts in further enhancing the halal value chain across other sectors in Indonesia.

REFERENCES

- Akhmad, R. (2020). Perilaku konsumen Muslim terhadap produk halal di Indonesia. *Jurnal Ekonomi Syariah*, 10(3), 245–256.
- Amalia, S. (2019). *Pendidikan halal dan pengaruhnya terhadap kesadaran konsumen*. Surabaya: UIN Press.
- Aminuddin, A. (2017). *Ekonomi syariah dan pengembangan industri halal di Indonesia*. Jakarta: Pustaka Ilmu.
- Fauzi, L. H. (2022). Peran edukasi dalam meningkatkan kesadaran konsumen akan produk halal. *Jurnal Sosial Keagamaan*, 15(4), 200–215.
- Hasibuan, M. A. (2018). Pendekatan deskriptif verifikatif dalam penelitian ekonomi mikro. *Jurnal Ilmu Ekonomi dan Bisnis*, 5(3), 230–245.
- Lubis, A. N. (2021). Indonesia's halal industry growth: A comprehensive overview. *International Journal of Halal Business*, 3(1), 55–70.
- Mufidah, L. (2021). Tantangan dan peluang farmasi halal di Indonesia. *Jurnal Halal Global*, 8(1), 45–60.
- Prasetyo, R. (2022). *Digital marketing untuk produk halal*. Jakarta: Elex Media Komputindo.
- Puspitasari, T. R. (2021). The development of halal value chain in Indonesian pharmaceutical and cosmetic industry. *Indonesian Journal of Halal Industry*, 5(1), 98–107.
- Putri, A. Z. (2023). Analisis pertumbuhan dan tantangan industri halal di Indonesia tahun 2019–2023. *Jurnal Ekonomi dan Bisnis Syariah*, 11(2), 134–145.
- Riyanto, A. (2019). Dampak kebijakan jaminan produk halal di Indonesia. *Jurnal Manajemen Industri Halal*, 4(3), 123–135.
- Setiawan, I. (2020). Perkembangan industri kosmetik halal di Indonesia. *Jurnal Industri Halal*, 5(2), 101–115.

- Sugiyono. (2016). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.
- Suleiman, M. H. (2017). Eleven shades of food integrity: A halal supply chain perspective. *Trends in Food Science & Technology*, 71, 216–224.
- Sultan, S. M. (2019). Halal cosmetics: Branding and consumer preferences. *International Journal of Islamic Marketing*, 7(2), 45–61.
- Supriyadi, A. (2020). Implementasi sertifikasi halal pada industri kosmetik di Indonesia. *Jurnal Industri Halal*, 5(2), 101–115.
- Suryani, A. (2022). Hambatan sertifikasi halal internasional bagi industri Indonesia. *Jurnal Ekonomi Syariah*, 10(3), 230–245.
- Tieman, M. (2015). Halal clusters. *Journal of Islamic Marketing*, 6(1), 2–21.
- Wahid, N. (2020). Kebijakan dan perkembangan industri halal di Indonesia: Tantangan dan peluang dalam sektor kosmetik dan farmasi. *Jurnal Ekonomi Syariah Indonesia*, 8(3), 215–230.
- Wulandari, F. H. (2021). Analisis deskriptif verifikatif dalam penelitian pendidikan. *Jurnal Pendidikan Indonesia*, 9(2), 138–148.
- Yusuf, M. (2019). *Regulasi produk halal di Indonesia*. Bandung: Alfabeta.

Copyright holders:

Alifa Baiduri Hayatun Nufus, Naufal Zaidan Irfanudin, Hana Khoerunnisa, Meli Yonita (2025)

First publication right:

Devotion - Journal of Research and Community Service



This article is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-sa/4.0/)