DETERMINANTS OF HALAL MEAT CERTIFICATION BEHAVIOR IN INDONESIA: A TPB ANALYSIS

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ABSTRACT - Despite being the country with the largest Muslim population globally, Indonesia faces challenges in implementing halal food supply regulations, particularly in the meat industry. This study aims to explore the factors influencing the decision of actors in the halal meat supply chain in Aceh, Indonesia, to obtain halal certification for their products. Data was collected through structured interviews with 150 participants involved in the halal meat supply chain. The data analysis was conducted using Structural Equation Modeling with Partial Least Squares (SEM-PLS). The study applied the Theory of Planned Behavior (TPB) alongside government regulations on halal food and compliance to predict certification behavior through the intention to certify. The findings suggest that attitude, subjective norms, perceived behavioral control, halal regulation, and compliance influence the intention to certify, which in turn affects the behavior of the actors. This study demonstrates that intention to certify acts as a mediating factor in the relationship between these variables and the behavior of actors within the halal meat industry. These findings have substantial implications for both the halal food industry and regulatory bodies seeking to enhance halal certification rates in Indonesia.
Keywords: TPB, Regulation, Compliance, Halal Industry

***ABSTRAK** - Determinan Perilaku Sertifikasi Daging Halal di Indonesia: Analisis Theory of Planned Behavior.* *Meskipun merupakan negara dengan populasi Muslim terbesar di dunia, Indonesia menghadapi tantangan dalam implementasi regulasi penyediaan makanan halal, khususnya di industri daging. Studi ini bertujuan untuk mengeksplorasi faktor-faktor yang mempengaruhi keputusan pelaku dalam rantai pasokan daging halal di Aceh, Indonesia, untuk mendapatkan sertifikasi halal untuk produk mereka. Data dikumpulkan melalui wawancara terstruktur dengan 150 partisipan yang terlibat dalam rantai pasokan daging halal. Data analisis dilakukan menggunakan Structural Equation Modeling dengan Partial Least Squares (SEM-PLS). Penelitian ini menggunakan Theory of Planned Behavior (TPB) bersama dengan peraturan pemerintah tentang makanan halal dan kepatuhan digunakan sebagai kerangka teoritis untuk memprediksi intensi pensertifikasian produk. Hasil kajian menunjukkan bahwa sikap, norma subjektif, persepsi kontrol perilaku, regulasi halal, dan kepatuhan mempengaruhi intensi untuk mensertifikasi, yang pada gilirannya mempengaruhi perilaku pelaku. Studi ini menyimpulkan bahwa intensi memediasi hubungan antara variabel-variabel tersebut dengan perilaku pelaku usaha di industri daging halal. Kajian ini mempunyai implikasi yang sangat signifikan bagi industri makanan halal dan badan regulasi dalam meningkatkan tingkat sertifikasi halal di Indonesia.*
***Kata Kunci**: TPB, Regulasi, Kepatuhan, Industri Halal*

INTRODUCTION

The global halal food industry has experienced significant growth, driven by increasing Muslim consumer awareness and regulatory requirements. However, a significant gap exists in halal certification implementation, particularly among Micro and Small Enterprises (MSEs) in Indonesia. As of 2022, only 8,333 MSEs have obtained halal certification, representing a minimal fraction of Indonesia's 64.2 million MSEs (Maulana et al., 2024). This stark disparity highlights a critical research problem in the halal certification ecosystem, especially in Aceh Province, where Islamic law is formally implemented.

Recent studies have identified substantial challenges in halal industry development. Razalia et al. (2021) revealed that despite Aceh's unique position as a region operating under Islamic law, the development of its halal industry remains suboptimal. This finding presents a significant research gap in understanding the factors influencing producers' decisions regarding halal certification, particularly in the meat industry.

The legal framework for halal certification in Indonesia is well-established through Law No. 7 of 1996 concerning Food, Law No. 8 of 1999 on Consumer Protection, and the specific Qanun No. 8 of 1999 on halal guarantees in Aceh. However, the prevalent social belief that meat from non-prohibited animals is automatically halal for consumption creates a complex challenge in implementing these regulations. This misconception overlooks the critical aspects of Islamic requirements for halal meat, which encompass not only the type of meat but also the slaughtering and processing procedures.

The novelty of this research lies in its comprehensive examination of factors influencing meat producers' and traders' behavior toward halal certification using the Theory of Planned Behavior (TPB). Unlike previous studies that focused primarily on consumer perspectives or general halal certification issues, this research specifically investigates the producers' side, incorporating additional variables such as past behavior, regulations, and compliance alongside traditional TPB constructs.

The significance of this study is threefold. First, it addresses the critical gap between existing halal regulations and their implementation in the meat industry. Second, it provides valuable insights for policymakers in developing more effective strategies for increasing halal certification adoption. Third, it

contributes to the theoretical development of behavioral models in the context of religious compliance in business practices.

The study seeks to answer three critical research questions: (1) How do attitudes, subjective norms, perceived behavioral control, past behavior, regulations, and compliance influence producer behavior in halal meat production? (2) What is the significance of these factors on producers' interest in producing halal-certified meat? (3) To what extent does interest mediate the relationship between these variables and producer behavior?

The findings of this study will contribute to both theoretical understanding and practical implementation of halal certification processes, particularly in regions where Islamic law plays a significant role in governing business practices.

LITERATURE REVIEW

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is widely used to understand human social behavior, particularly in contexts involving decision-making processes, such as producer behavior. According to Ajzen (1991), TPB posits that human behavior is guided by three key factors: attitudes, subjective norms, and perceived behavioral control. These factors collectively shape an individual's intentions, which in turn influence their behavior. In the context of producer behavior, this theory is particularly useful for understanding how attitudes toward halal certification, societal expectations, and perceived ease or difficulty of obtaining certification affect producers' decisions to comply. Tantawi (2017) emphasizes that the core of TPB lies in a person's intention to perform a behavior, as intention serves as a mediator between attitudes and actual behavior.

However, while TPB has been widely applied in various fields, including business ethics and consumer behavior, its application in the halal meat industry, specifically in the context of small and medium-sized enterprises (SMEs), remains limited. Although some studies have examined consumer perspectives on halal products (Allah-Pitchay, 2020; Ali, 2018), there is a scarcity of research on how producers, particularly meat producers, perceive and react to the regulatory and social pressures related to halal certification. This research fills this gap by applying TPB to the halal meat sector, examining

factors that influence producers' and traders' intentions and behaviors toward halal certification in Aceh.

Halal Meat Business Actors

Producers in the halal meat industry are responsible for ensuring that their products comply with Islamic law, particularly in terms of the sourcing, slaughtering, and processing of meat. According to Ratih (2019), producers can be categorized as individuals or entities. Individuals operate independently, while entities consist of groups of people who collaborate in business activities. The common objective of producers, regardless of their structure, is to maximize profits by offering products that meet market demand (Umuri & Ibrahim, 2020).

In the context of the halal meat industry, producers must navigate not only the economic pressures of running a business but also the ethical and religious responsibilities associated with halal certification (Akmal, et al., 2020; Ibrahim et al., 2021). This creates a complex environment where the motivation to pursue halal certification may vary significantly. Zulkarnain and W (2019) note that, for many producers, the decision to seek certification is influenced by both personal beliefs and market considerations. However, research on producer motivations and challenges in this area remains limited, particularly in Aceh, where the implementation of halal certification regulations is still in its early stages. This study seeks to explore these motivations and barriers, addressing a critical gap in the literature.

Halal Labeling

Halal labeling is an essential aspect of the halal certification process, as it provides consumers with a clear indication that the product has been certified according to Islamic principles. In Indonesia, the Indonesian Ulema Council (MUI) is the authority responsible for issuing halal certification, ensuring that products meet both religious and governmental standards. Halal labeling is crucial not only for religious reasons but also for economic competitiveness, as it enables producers to tap into the global halal market, which is expanding rapidly (Wiranda, 2020).

Despite the growing importance of halal labeling, previous research has predominantly focused on consumer perceptions of halal certification (Allah-Pitchay, 2020; Dimitha et al., 2021), with fewer studies addressing the

producers' perspective. Producers' challenges in obtaining certification, such as cost, bureaucratic hurdles, and lack of awareness, have been underexplored. This research aims to address these gaps by investigating the factors that influence producers' intentions and behaviors regarding halal certification, particularly in Aceh's meat industry.

Current Progress in Halal Certification Research

While research on halal certification has expanded in recent years, much of the focus has been on consumer demand and the global market for halal products (Bonne & Verbeke, 2008; Allah-Pitchay, 2020). The producer's perspective, especially within the meat industry, has received comparatively less attention. Rezai et al. (2012) and Ali (2018) have examined the economic benefits of halal certification for producers, but the social, cultural, and psychological factors that influence producers' willingness to obtain certification remain underexplored. This study contributes to the growing body of literature by applying TPB to examine these factors in Aceh, where there is a significant need for more empirical research on the implementation of halal certification among meat producers.

Conceptual Framework and Hypothesis

The conceptual framework for this research is based on the theory of planned behavior, which posits that attitudes, subjective norms, and perceived behavioral control influence intention, which in turn influences behavior. This research builds on previous studies by incorporating additional variables such as past behavior, regulations, and compliance, which are particularly relevant in the context of halal certification in Aceh.

Based on the above-mentioned information, the following hypotheses are proposed:

H1: Attitudes, subjective norms, perceived behavioral control, past behavior, regulations, and compliance significantly influence producers' and retailers' intentions toward halal certification of meat.

H2: Attitudes, subjective norms, perceived behavioral control, past behavior, regulations, and compliance significantly influence producers' and retailers' behavior toward halal certification of meat.

H3: Intention mediates the relationship between attitudes, subjective norms, perceived behavioral control, past behavior, regulations, and compliance, and producers' and retailers' behavior toward halal certification of meat.
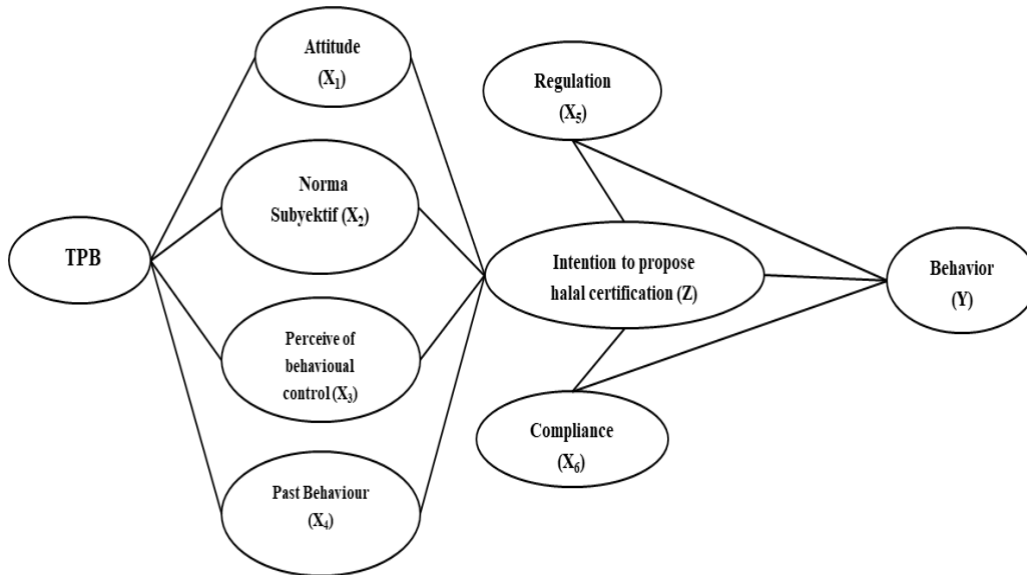

Figure 1. Conceptual Framework

METHODOLOGY

This research was conducted in Aceh Province, Indonesia, with the primary objective of predicting the behavior of halal industry actors in supplying and selling halal-certified fresh meat. The study employs variables from the Theory of Planned Behavior (TPB), including attitude, subjective norms, perceived behavioral control, and past behavior. Additionally, two supplementary variables regulations and compliance are incorporated to further understand their influence on behavior, with intention serving as a mediating variable.

Population and Sample

The target population for this research comprises business actors involved in the fresh meat industry throughout Aceh Province. To obtain a representative sample, a Non-Probability Sampling technique was employed, utilizing an accidental sampling approach. This method was chosen to facilitate the inclusion of participants who are readily available and willing to provide insights. The final sample consisted of 150 respondents, ensuring a diverse representation of the industry stakeholders.

Research Approach

This study adopts a Mixed Methods Research (MMR) approach, which combines both qualitative and quantitative research methodologies. Specifically, a sequential explanatory design was utilized, where quantitative data collection and analysis were conducted first, followed by qualitative data collection to further explore and explain the quantitative findings.

Data Analysis Techniques

For the quantitative aspect, the research utilized Structural Equation Modeling with Partial Least Squares (SEM-PLS) as the primary analytical method. The WarpPLS 7.0 software was employed to facilitate the analysis. Prior to conducting the SEM-PLS analysis, it was imperative to fulfill the requirements of the Outer Model (Measurement Model) and Inner Model (Structural Model) tests. These preliminary tests ensured the validity and reliability of the constructs used in the model.

In parallel, qualitative analysis was conducted through semi-structured interviews with key stakeholders in the halal fresh meat industry. This approach allowed for in-depth insights into the experiences and perceptions of business actors regarding the factors influencing their behaviors.

Structural Model

The structural equation models were developed based on the theoretical framework, aiming to illustrate the relationships among the variables. The following equations represent the structural models established for this research:

Model I:

$$Z = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e_1 \tag{1}$$

Model II:

$$Y = \beta Z + e_2 \tag{2}$$

Where:

β = Coefficient
Z = Intention (to certify and sell halal meat)
X_1 = Attitude (toward halal certification)
X_2 = Subjective Norm (social pressures to certify meat as halal)
X_3 = Perceive Behavioral Control (perceived ease or difficulty in obtaining halal certification)
X_4 = Past Behavior (previous experience with halal certification or meat sales)
X_5 = Regulation (government rules and regulations regarding halal certification)
X_6 = Compliance (degree to which producers comply with halal standards)
Y = Behavior (actual behavior of certifying and selling halal meat)
e = Error terms

RESULT AND DISCUSSION

This research involved 150 respondents from the halal meat supply sector within Aceh Province. The following section presents a discussion of the research results, which includes a brief overview of the model analysis, specifically the outer and inner model assessments. The discussion begins with a description of the respondents' characteristics, followed by an analysis of their responses and the overall research data.

Demographic Profile

The respondents in this study are distributed across four regions of Aceh: Banda Aceh (40%), Aceh Besar, Lhokseumawe, and Aceh Utara (20% each). The average respondent age is 38 years, with 33.3% aged 30–39. Educational backgrounds show that 46.7% have completed senior high school, while only 13.3% have higher education degrees. Most respondents (68.7%) are poultry traders, with 66.7% renting their business premises. Business experience averages 15 years, with 40% having more than 15 years of experience.

Regarding halal certification, 80% of respondents lack certification. Most source livestock locally, though 33.3% use certified halal slaughterers, and 53.3% operate in licensed slaughterhouses. While 60% follow halal slaughtering procedures, only 26.7% actively market their products as halal. Sales volumes vary, with 46.7% operating on a small scale (up to 50 kg/day), and most focus on local markets. Additionally, 66.7% of businesses are licensed, but only 26.7% have attended halal certification training.

Table 1. Respondents Demographic Profile

Characteristic	Category	Frequency	Percentage
Region	Banda Aceh	60	40%
	Aceh Besar	30	20%
	Lhokseumawe	30	20%
	Aceh Utara	30	20%
Age Group	Under 30 years	40	26.7%
	30 to 39 years	50	33.3%
	40 to 49 years	35	23.3%
	50 years and above	25	16.7%
Education Level	Elementary	20	13.3%
	Junior High	40	26.7%
	Senior High	70	46.7%
	Diploma	5	3.3%
	Undergraduate	13	8.7%
	Master's	2	1.3%
Business Type	Meat Traders	44	29.3%
	Poultry Traders	103	68.7%
	Slaughterhouse Operators	3	2%
Business Ownership	Owned	30	20%
	Rented	100	66.7%
	Other (e.g., family-owned)	20	13.3%
Business Experience	Less than 5 years	30	20%
	5 to 15 years	60	40%
	More than 15 years	60	40%
Halal Certification Status	Certified	30	20%
	Not Certified	120	80%
Sales Volume	Small Scale (up to 50 kg/day)	70	46.7%
	Medium Scale (51-200 kg/day)	60	40%
	Large Scale (above 200 kg/day)	20	13.3%
Business Licensing	Licensed	100	66.7%
	Unlicensed/Informal	50	33.3%
Halal Certification Training	Attended	40	26.7%
	Not Attended	110	73.3%

Outer Model

The measurement model (outer model) analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the reliability and validity of the constructs. The model examined eight latent variables: attitude (X1), subjective norm (X2), perceived behavioral control

(X3), past behavior (X4), regulation (X5), compliance (X6), intention (Z), and behavior (Y). The measurement model evaluation revealed satisfactory indicator loadings, with most indicators showing values above the recommended threshold of 0.7, indicating good reliability. Some indicators with loadings between 0.5-0.7 were retained as they met the minimum acceptable criteria for exploratory research.

The model's overall fit was assessed using the Standardized Root Mean Square Residual (SRMR), which yielded a value of 0.091, falling within the acceptable range of 0.08-0.10, thus indicating adequate model fit. Convergent validity was established through Average Variance Extracted (AVE) values exceeding 0.5, while discriminant validity was confirmed through cross-loading examination and the Fornell-Larcker criterion. The measurement model demonstrated appropriate psychometric properties, providing a solid foundation for subsequent structural model analysis of the relationships between halal certification determinants.
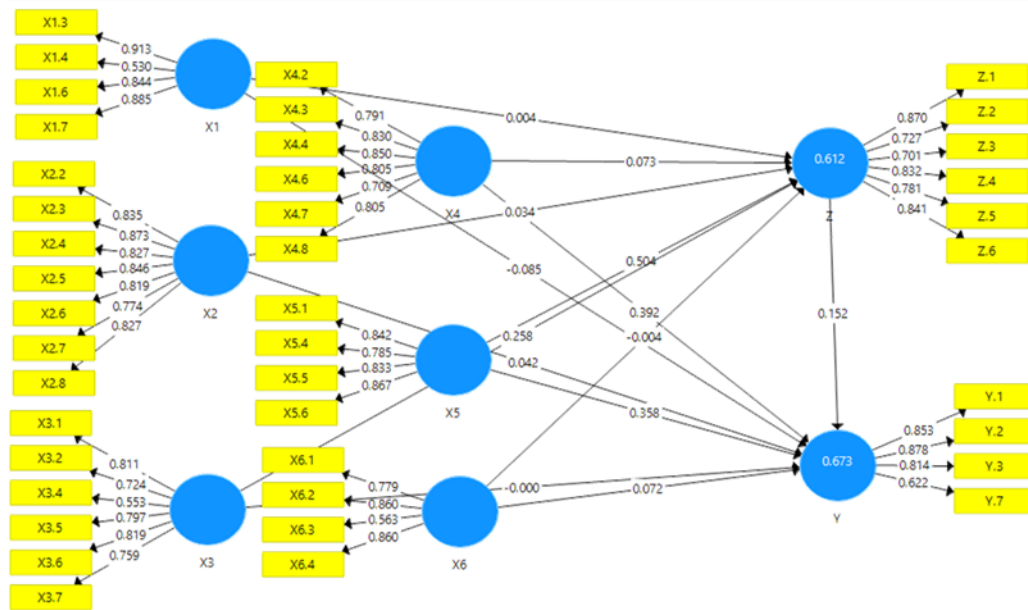

Figure 2. PLS Algorithm

Inner Model

The inner model analysis revealed significant relationships between the study variables through path coefficient examination. The structural equation model demonstrated that past behavior (β = 0.392, p < 0.001) and regulation (β =

0.358, p < 0.001) had the strongest direct effects on behavior toward halal certification. Interest (intention) showed a moderate positive influence on behavior (β = 0.152, p < 0.10). Conversely, attitude (β = -0.085), subjective norm (β = 0.042), perceived behavioral control (β = 0.000), and compliance (β = 0.072) demonstrated weaker direct effects on behavior. The mediating role of intention was most pronounced for regulation (β = 0.504, p < 0.001) and perceived behavioral control (β = 0.258, p < 0.10), while other variables showed minimal indirect effects through intention.

These findings suggest that past behavior and regulatory frameworks are the primary drivers of halal certification behavior, with intention serving as a significant mediator primarily for regulatory influences. The model's explanatory power was supported by acceptable fit indices (SRMR = 0.091), indicating the theoretical framework's adequacy in explaining halal certification behavior among meat producers and retailers.

Table 2. Path Koefisien

	X1	X2	X3	X4	X5	X6	Y	Z
X1							-0.085	0.004
X2							0.042	0.034
X3							0.000	0.258
X4							0.392	0.073
X5							0.358	0.504
X6							0.072	-0.004
Y								0.152
Z								

Y = -0.085 X1 + 0.042 X2 + 0.000X3 + 0.392 X4 + 0.358 X5 + 0.072 X6 +
   0.152 Z   (3)

Z = 0.004 X1 + 0.034 X2 + 0.258 X3 + 0.073 X4 + 0.504 X5 - 0.004 X6   (4)

Goodness of Fit (GoF)

The goodness of fit (GoF) of the research model was assessed using the Standardized Root Mean Square Residual (SRMR) to determine the model's fit with the observed data. According to Hu and Bentler (1998), an SRMR value less than 0.08 is indicative of a good fit, while values between 0.08 and 0.10 are still considered acceptable (Yamin, 2021). For this study, the SRMR value

was reported as 0.091, which falls within the acceptable range of 0.08 to 0.10, indicating that the model sufficiently fits the data.

This fit assessment suggests that the structural model is adequately representing the relationships between variables related to the halal certification behavior of meat producers and retailers in Aceh, Indonesia. The acceptable fit of the model underscores its reliability for further hypothesis testing and structural path analysis, thus supporting the study's theoretical framework and its potential implications for understanding the factors influencing halal certification intentions and behaviors.

Table 3. Fit Model

Fit Index	Saturated Model	Estimated Model
SRMR	0.091	0.091
d_ULS	7.103	7.103
d_G	2.829	2.829
Chi-Square	1998.692	1998.692
NFI	0.624	0.624

Hypothesis Test Result

The bootstrapping analysis and significance testing revealed varying levels of direct and indirect effects among the study variables.
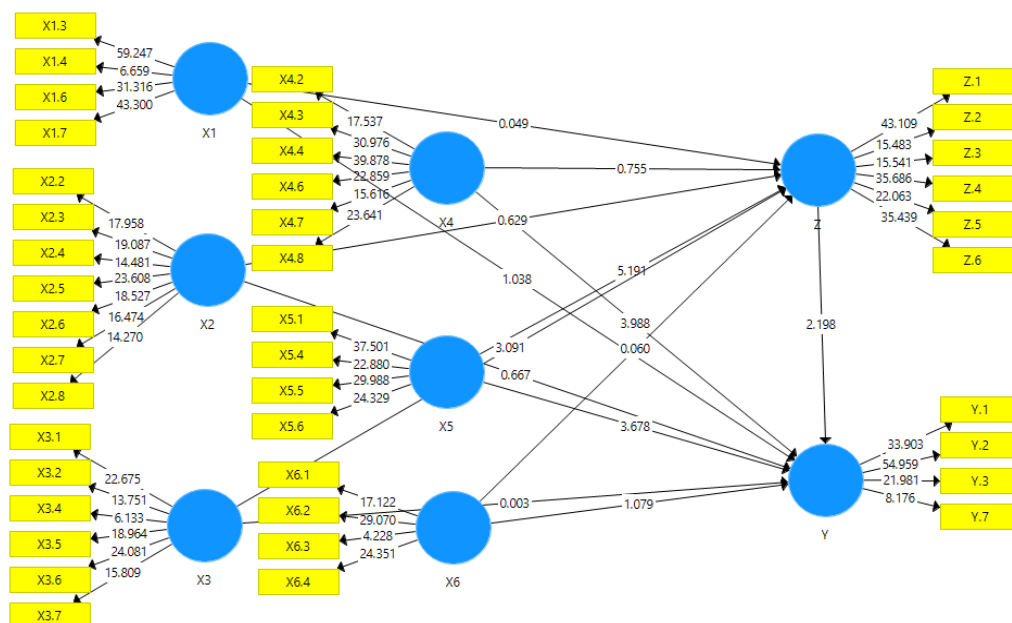

Figure 3. Bootstrapping

The results demonstrated that past behavior (β = 0.392, t = 3.988, p < 0.001) and regulation (β = 0.358, t = 3.678, p < 0.001) had significant direct effects on halal certification behavior. Intention showed a moderate mediating effect (β = 0.152, t = 1.939, p < 0.10), particularly for regulation (β = 0.504, t = 1.939, p < 0.10) and perceived behavioral control (β = 0.258, t = 1.682, p < 0.10). However, attitude (β = -0.085, t = 1.039, p > 0.10), subjective norm (β = 0.042, t = 0.667, p > 0.10), and compliance (β = 0.072, t = 1.079, p > 0.10) did not demonstrate significant direct effects on behavior.

The mediation analysis further revealed that intention's mediating role was limited, with only regulation and perceived behavioral control showing significant indirect effects through intention. These findings suggest that while past behavior and regulatory frameworks directly influence halal certification behavior, the mediating role of intention is selective and primarily effective for regulatory and control-related factors. The bootstrapping results confirm the robustness of these relationships at various significance levels (p < 0.001, p < 0.05, and p < 0.10), providing strong empirical support for the model's key pathways.

Table 4. Significance Tests for Path Coefficients

Path	Original Sample (O)	T-Statistics (O/STDEV)	P Values	Path	Original Sample (O)	T-Statistics (O/STDEV)	P Values
X1 → Y	-0.085	1.038	0.300	X1 → Z	0.004	0.049	0.961
X2 → Y	0.042	0.667	0.505	X2 → Z	0.034	0.629	0.530
X3 → Y	0.000	0.003	0.998	X3 → Z	0.258	3.091	**0.002**
X4 → Y	0.392	3.988	**0.000**	X4 → Z	0.073	0.755	0.451
X5 → Y	0.358	3.678	**0.000**	X5 → Z	0.504	5.191	**0.000**
X6 → Y	0.072	1.079	0.281	X6 → Z	-0.004	0.060	0.953

Discussion

The results of this study provide important insights into the factors influencing halal meat certification behavior among producers and retailers in Aceh Province, Indonesia. The analysis focused on examining both the direct effects of exogenous variables—attitude (X1), subjective norm (X2), perceived behavioral control (X3), past behavior (X4), regulation (X5), and compliance (X6)—on behavior (Y), as well as the mediating role of intention (Z) in these relationships.

Direct Effects on Behavior

The findings of this study revealed that Attitude (X1) had a negative yet non-significant direct effect on behavior (β = -0.085, t = 1.039, p = 0.300). This suggests that the general disposition or positive feelings of producers towards halal certification did not significantly influence their actual certification behavior. This outcome contrasts with the Theory of Planned Behavior (TPB), which posits that attitude is a key predictor of intention and behavior (Ajzen, 1991) and differ from some previous studies where these factors were significant (Rezai et al., 2012). This discrepancy may be attributed to cultural, regional, or industry-specific factors unique to Aceh Province. Similarly, Subjective Norm (X2) exhibited a positive but non-significant direct effect on behavior (β = 0.042, t = 0.667, p = 0.505). This indicates that social pressures or perceived expectations from others did not significantly motivate producers to engage in halal certification. This finding is consistent with some studies in the halal context, where subjective norms were not identified as significant predictors of halal food purchasing behavior (Bonne & Verbeke, 2008).

In contrast, Perceived Behavioral Control (X3) demonstrated no significant direct effect on behavior (β = 0.000, t = 0.003, p = 0.998). This implies that producers' perceptions regarding the ease or difficulty of obtaining halal certification did not directly influence their certification behavior. Previous research has produced mixed results regarding this construct, with some studies finding it significant while others did not (Allah-Pitchay, 2020). On a more positive note, Past Behavior (X4) exhibited a significant positive direct effect on behavior (β = 0.392, t = 3.988, p < 0.001). This finding indicates that producers who have previously engaged in halal certification are more likely to continue certifying their products. The significant impact of past behavior aligns with the habit formation literature, suggesting that prior actions are strong predictors of future behavior (Ouellette & Wood, 1998). Producers who have previously engaged in halal certification are more comfortable and familiar with the process, making them more likely to continue.

Regulation (X5) also demonstrated a significant positive direct effect on behavior (β = 0.358, t = 3.678, p < 0.001). This underscores the critical role of government policies and legal requirements in motivating producers to comply with halal certification standards. This finding corroborates previous research emphasizing the role of institutional frameworks in facilitating halal industry compliance (Ali, 2018; Allah-Pitchay, 2020). The Indonesian government's

efforts to mandate halal certification may therefore be effective in encouraging producers to certify their products. Lastly, Compliance (X6) showed a positive but non-significant direct effect on behavior ($\beta = 0.072$, $t = 1.079$, $p = 0.281$). This suggests that the producers' sense of obligation or commitment to halal standards did not significantly influence their certification behavior. The lack of a significant effect of compliance implies that internal motivations or ethical considerations alone may not be sufficient to drive behavior without supportive external factors. This aligns with Al-Ansi and Han's (2019) findings that external factors such as regulations and market demand play a crucial role in halal compliance.

Mediating Role of Intention

The mediation analysis aimed to determine whether intention (Z) acted as a conduit through which the exogenous variables influenced behavior (Y). The results indicated that intention did not significantly mediate the relationships between attitude (X1), subjective norm (X2), past behavior (X4), and compliance (X6) with behavior. This suggests that even when producers hold favorable attitudes, perceive social support, engage in habitual practices, or feel a sense of compliance, these factors do not necessarily translate into an intention that leads to actual behavior.

In contrast, Perceived Behavioral Control (X3) exhibited a significant indirect effect on behavior through intention ($\beta = 0.039$, $t = 1.825$, $p = 0.068$). This finding implies that when producers feel capable of obtaining halal certification, this perception enhances their intention, which subsequently influences their behavior. This aligns with the Theory of Planned Behavior (TPB), which posits that perceived behavioral control can affect behavior indirectly through intention (Ajzen, 1991).

Additionally, Regulation (X5) demonstrated a significant indirect effect on behavior through intention ($\beta = 0.077$, $t = 1.939$, $p = 0.053$). This underscores that government regulations not only exert a direct impact but also enhance producers' intentions to pursue certification, thereby affecting their behavior. This dual influence highlights the critical role of regulatory frameworks in the halal certification process.

CONCLUSION

The present study provides a nuanced understanding of the factors influencing halal meat certification behavior among producers in Aceh, Indonesia. The results demonstrate that while the direct effect of intention on behavior is significant, the mediating role of intention does not uniformly apply across all exogenous variables. Specifically, attitude, subjective norm, perceived behavioral control, past behavior, regulatory frameworks, and compliance do not significantly influence behavior through intention. This finding deviates from the Theory of Planned Behavior (TPB), which traditionally emphasizes the mediating role of intention in translating attitudes and perceptions into behavior. The study highlights that past behavior and regulatory factors have the most substantial direct effects on certification behavior, underscoring the importance of habitual practices and regulatory compliance. Conversely, attitude, subjective norms, and perceived behavioral control were not significant predictors, suggesting that external and experiential factors may be more critical in this context than personal or social perceptions.

Theoretically, these findings call for a reevaluation of the TPB's applicability in contexts dominated by regulatory and habitual influences. The study suggests integrating additional constructs, such as institutional pressures and market dynamics, into behavioral models to better capture the decision-making processes in halal certification. Practically, the results indicate that policies and interventions should prioritize regulatory enforcement and support mechanisms that facilitate certification processes, reflecting the significant role of regulatory frameworks.

This study is limited by its focus on the Aceh region, which may restrict the generalizability of its findings to other contexts. Additionally, the study primarily concentrated on behavior, neglecting other factors such as incentives and trust. It also relied predominantly on quantitative data, while qualitative data constituted only a small portion of the overall study. Future research should explore longitudinal designs to capture changes in certification behavior over time and consider comparative studies across different regions and industries to validate and extend these findings. Further investigation into the roles of economic incentives and trust in certification bodies could provide deeper insights into the factors driving halal certification behavior. Moreover, qualitative studies could complement quantitative findings by exploring the underlying motivations and barriers perceived by producers in greater depth.

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