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The Role of Halal Certification, Product Quality, and Process Innovation on the Purchase Interest of MSME Culinary Products in Belitung

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Abstract:

Purpose – This study aims to examine the influence of halal certification, product quality, and process innovation on consumer purchase interest in culinary Micro, Small, and Medium Enterprises (MSMEs) in Belitung. The research seeks to determine which of these three factors exerts the most significant impact on consumer behavior, particularly within the context of a predominantly Muslim island economy undergoing tourism development.

Design/methodology/approach – A quantitative, explanatory approach was employed using a structured questionnaire distributed to Muslim consumers who had purchased from culinary MSMEs in Belitung. Data were collected from 160 respondents, meeting the minimum sample size requirement based on the number of indicators. Multiple linear regression analysis using SPSS was conducted to test the individual and simultaneous effects of halal certification, product quality, and process innovation on purchase interest.

Findings – The findings reveal that all three variables halal certification, product quality, and process innovation have significant and positive influences on purchase interest. Among them, process innovation shows the strongest influence (Beta = 0.195), followed by product quality (Beta = 0.090) and halal certification (Beta = 0.081). The regression model is statistically significant; however, it explains a modest 5.7% of the variance in purchase interest, suggesting that other factors may also contribute to consumer behavior in this context.

Research limitations/implications – The study is limited by its geographic focus on Belitung and its exclusive sampling of Muslim consumers, which may affect the generalizability of findings to other

regions or mixed-religion markets. The modest R^2 value indicates the need to explore additional variables such as price sensitivity, digital literacy, or tourism influence in future research.

Practical implications – The results offer practical guidance for culinary MSMEs and local policymakers in Belitung, emphasizing the importance of investing in process innovation, maintaining consistent product quality, and simplifying halal certification processes. These strategies can enhance consumer trust and support the growth of the halal culinary sector as part of Belitung's broader tourism economy.

Originality/value – This study contributes to the literature by integrating halal certification, product quality, and process innovation within the Theory of Planned Behavior and Consumer Perceived Value frameworks, specifically in the underrepresented island context of Belitung. It provides both theoretical and actionable insights for MSME development and halal ecosystem enhancement in regional Indonesia.

Keywords: halal certification, product quality, process innovation, purchase interest, culinary MSMEs, Belitung.

INTRODUCTION

The growing importance of halal certification in the global and Indonesian marketplace is evident in the increasing consumer demand for food products that align with Islamic dietary laws. As the world's largest Muslim-majority country, Indonesia has witnessed a surge in halal-conscious consumer behavior, prompting businesses particularly Micro, Small, and Medium Enterprises (MSMEs) to consider halal certification as a critical component of their value proposition (Tuhuteru & Iqbal, 2024; Alim & Aziz, 2024).

Despite the mandatory nature of halal certification under Indonesia's Law No. 33 of 2014 on Halal Product Assurance, MSMEs, especially in food and beverage sectors, continue to face significant challenges in acquiring certification. These challenges range from limited access to information, lack of technical and financial resources, to a general lack of awareness regarding the certification process (Tuhuteru & Iqbal, 2024). In regions such as East Belitung, this issue is exacerbated by geographical limitations and systemic bottlenecks in institutional support, resulting in lower-than-expected adoption rates of halal practices among culinary MSMEs (Habiburrahman, 2024).

Empirical studies have confirmed the critical influence of halal certification on consumer trust and purchase intention. For instance, research by Alim & Aziz (2024) in Bandung demonstrates that self-declared halal certification significantly increases purchase interest among Muslim consumers. Likewise, a study by Alfiansyah (2024) in Cirebon highlights that halal certification, combined with halal awareness and high product quality, plays a substantial role in influencing consumer purchase decisions for MSME products.

In parallel, product quality has been consistently linked to consumer satisfaction and market competitiveness. According to Rosanti et al. (2024), product quality not only enhances consumer confidence but also strengthens brand positioning and drives sales performance in the MSME sector.

Their findings in Pontianak reinforce the need for MSMEs to uphold food safety, taste, packaging, and consistency core elements valued by today's discerning consumers.

However, while halal certification and product quality are acknowledged as vital determinants of consumer purchase interest, the role of **process innovation** remains underexplored. Given the dynamic nature of consumer preferences and technological advancements in food production, culinary MSMEs are increasingly required to innovate across processing, packaging, and delivery to remain competitive. Yet, limited empirical studies have directly measured how process innovation affects purchase intention in tandem with halal certification and product quality. This signals a **research gap** that needs to be addressed, particularly in underrepresented regions such as Belitung.

Moreover, the literature often focuses on major urban centers like Bandung, Cirebon, and Pontianak, while studies addressing the unique challenges and opportunities in island economies such as Belitung remain scarce. According to Habiburrahman (2024), MSMEs in East Belitung encounter structural constraints including poor digital adaptation, difficulties in sourcing raw materials, and minimal engagement with innovation practices, including halal certification. These conditions highlight a **contextual gap** in current research, underscoring the necessity to investigate the combined influence of halal certification, product quality, and process innovation on consumer purchase interest in this region.

Therefore, this study aims to fill both the **empirical and contextual gaps** by investigating the interplay of these three factors halal certification, product quality, and process innovation on consumer purchase interest specifically within the culinary MSME sector in Belitung. The results are expected to provide policy-relevant insights and practical implications for MSME development, halal ecosystem strengthening, and culinary tourism potential in regional Indonesia.

Despite the growing importance of halal certification and increasing consumer awareness in Indonesia's Muslim-majority context, many culinary MSMEs particularly in peripheral regions such as Belitung continue to face substantial barriers in adopting and leveraging halal standards. While prior studies have validated the positive effect of halal certification and product quality on purchase intention, most existing research has concentrated on urban centers and lacks a comprehensive exploration of how these factors interact with process innovation in rural island economies. Furthermore, empirical studies rarely incorporate Belitung's culinary MSMEs, which are uniquely positioned within a rising tourism economy yet remain underrepresented in scholarly discourse. This leaves a critical gap in understanding how halal certification, product quality, and process innovation jointly influence consumer purchase interest in geographically isolated regions. Addressing this gap is essential not only for strengthening the halal ecosystem but also for enhancing MSME competitiveness and regional economic development. Therefore, based on the background and previous research about halal certification, product quality, process of innovation and purchase interest, here's the problem statement from this research:

1. How does halal certification influence the purchase interest of consumers toward culinary products MSMEs in Belitung?
2. How does product quality affect consumer purchase interest toward culinary products MSMEs in Belitung?

3. How dose the role of process innovation influence the purchase interest of consumers toward culinary products MSMEs in Belitung?
4. How do halal certification, product quality, and process innovation simultaneously influence the purchase interest of consumers toward culinary products MSMEs in Belitung?

This study is conducted with the following objectives:

1. To examine the effect of halal certification on the purchase interest of culinary products from MSMEs in Belitung.
2. To analyze how product quality influences consumers' purchase interest in culinary MSME products.
3. To investigate the role of process innovation in shaping purchase interest among consumers in the Belitung culinary sector.
4. To evaluate the simultaneous impact of halal certification, product quality, and process innovation on the purchase interest of culinary products produced by MSMEs in Belitung.

LITERATURE REVIEW

1. Grand Theory: Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), developed by Ajzen (1991), is one of the most widely accepted frameworks for predicting and explaining individual behavior in various domains, particularly in consumer behavior and decision-making. TPB posits that behavioral intentions are the most immediate predictors of actual behavior, and these intentions are shaped by three key determinants: attitudes toward the behavior, subjective norms, and perceived behavioral control.

- a. Attitude toward the behavior refers to the individual's positive or negative evaluation of performing the behavior.
- b. Subjective norms involve perceived social pressures to perform or not perform the behavior.
- c. Perceived behavioral control reflects the person's perception of the ease or difficulty in performing the behavior, often linked to access, resources, or competence.

Here's the picture of TPB framework which built by Ajzen (1991):

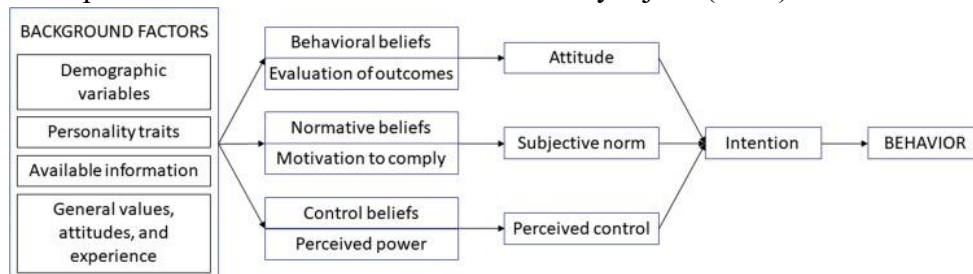


Figure 1. TPB Framework
Source: www.ars.els-cdn.com

These three components—attitude, subjective norm, and perceived control are influenced by background factors such as demographics, personality traits, available information, values, and past experiences. Together, they form a person's intention, which is the strongest predictor of actual behavior.

This model is especially relevant for understanding consumer decision-making, such as the intention to purchase halal-certified, high-quality, and innovative culinary products.

In this research, purchase interest in culinary MSME products is understood as a behavioral intention. Consumers are likely to form this intention based on their attitude toward the product's halal status (e.g., perceived compliance with religious norms), product quality (e.g., hygiene, safety, and taste), and process innovation (e.g., modernized or efficient production methods). These three variables align well with the components of TPB: halal certification and product quality shape consumers' attitudes and perceived norms, while process innovation relates to perceived behavioral control by influencing ease of consumption and accessibility.

TPB is especially relevant for this study because consumer decisions to purchase halal culinary products are not random or impulsive, but rather intentional and value-driven. These decisions are strongly influenced by internal beliefs, such as religious commitment to consume only halal products, as well as external factors, such as social or familial expectations rooted in cultural or religious norms. TPB provides a theoretical lens that captures this interplay between personal motivation and social influence.

Moreover, TPB enables a structured analysis of the psychological pathways leading to purchase interest. In this study, attitudes toward halal certification, subjective norms regarding religious observance, and the perceived ease of accessing innovative and quality culinary offerings are all theorized to influence consumers' intentions to purchase. TPB thus aligns directly with the study's central variables and helps explain how these constructs influence behavior.

The applicability of TPB in Islamic consumer behavior has also been empirically supported. Studies by Bashir (2019) and Aziz & Chok (2013), for example, successfully employed TPB to explain halal food purchasing behavior. These precedents confirm that TPB is a validated and robust framework for understanding the behavior of Muslim consumers in halal-sensitive markets.

Finally, TPB offers a critical bridge between psychological motivation and observable consumer behavior. This is particularly valuable for studying MSMEs in regions like Belitung, where purchasing behavior is influenced by a combination of belief systems, product evaluation, and innovation readiness. TPB thus provides both theoretical rigor and contextual relevance for exploring what drives consumer interest in halal-certified, high-quality, and innovative culinary products.

2. Middle-Range Theory: Consumer Perceived Value Theory

The Consumer Perceived Value Theory, as conceptualized by Zeithaml (1988), serves as the middle-range theory in this study, offering a more focused explanation of how individuals evaluate products based on the trade-off between perceived benefits and perceived costs. In the context of culinary MSMEs, perceived value is not limited to functional utility or price, but also includes symbolic, emotional, and social elements that shape consumer judgments. Consumers assign value to halal-certified products not only because they meet physical or safety expectations, but because they also align with religious obligations, reinforce personal identity, and fulfill social norms. Similarly, the perception of high product quality such as freshness, hygiene, and attractive packaging enhances the feeling of trust and satisfaction, which increases perceived value. Innovation in the culinary production process such as convenience, customization, or eco-friendly solutions can also elevate perceived value

by offering novelty, efficiency, or personalization. Thus, purchase interest emerges when consumers perceive that a product offers meaningful, relevant, and advantageous benefits across multiple dimensions. This theory is particularly appropriate for the present study, as it bridges the gap between consumer evaluation processes and the psychological intention to buy, especially in culturally and religiously driven consumption contexts like Belitung's halal culinary market. Here's the figure of Customer Perceived Value Theory:

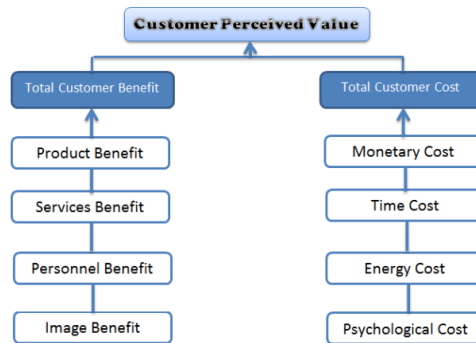


Figure 2. Customer Perceived Value Framework
Source: Zeithaml, V. A. (1988)

The framework of Customer Perceived Value (CPV) illustrates that value is determined by the balance between total customer benefits and total customer costs. This theory, rooted in the work of Zeithaml (1988), emphasizes that consumers do not evaluate products or services based solely on price, but rather on a complex interplay of what they receive versus what they sacrifice. On the benefit side, customers assess value based on several components, including product benefits (such as quality, performance, and features), service benefits (such as convenience or after-sales support), personnel benefits (interactions with employees or service providers), and image benefits (such as brand reputation and emotional attachment). In contrast, the cost side involves monetary costs (the price paid), time costs (how long it takes to obtain or use the product), energy costs (effort exerted), and psychological costs (stress, uncertainty, or perceived risk). The higher the total perceived benefits relative to the total perceived costs, the greater the perceived value, which directly influences the consumer's intention to purchase, satisfaction, and loyalty. This framework is especially relevant in analyzing how consumers evaluate culinary products from MSMEs, where intangible factors like halal certification, service quality, and brand trust significantly contribute to perceived value.

3 Applied Theory: Dimensions of the Variables

a. Halal Certification

Halal certification is recognized as a multidimensional construct that assures consumers of a product's compliance with Islamic dietary laws. According to Talib et al. (2016) and Alfiansyah (2024), this construct can be broken down into several critical dimensions. First is religious assurance, which reflects the degree to which the product adheres to halal standards as outlined in Islamic teachings. Second, label trust refers to the consumer's confidence in the halal label's visibility, clarity, and reliability on packaging. Third, institutional credibility captures trust in the legitimacy and

authority of the certifying institutions such as the Indonesian Ulema Council (MUI) or BPJPH. Finally, transparency of process pertains to the openness of information regarding the product's sourcing, production, and handling procedures throughout the supply chain. Together, these dimensions influence how consumers perceive the halal integrity of culinary MSME products.

b. Product Quality

In the context of MSMEs, product quality plays a vital role in shaping consumer trust and satisfaction. As emphasized by Kotler and Keller (2016) and supported by Rosanti et al. (2024), product quality is comprised of several key attributes. Physical attributes refer to tangible qualities such as taste, freshness, and hygiene that directly affect the sensory experience. Consistency involves the uniformity of product quality across different batches or transactions, which is crucial for maintaining customer trust. Packaging quality encompasses both the visual appeal and functional aspects of the packaging, such as durability and food protection. Lastly, food safety ensures that the product meets health standards and regulatory requirements, which is particularly important for consumer well-being and brand reliability.

c. Process Innovation

Process innovation within culinary MSMEs represents the ability of enterprises to enhance their production and service delivery methods. Drawing from the Oslo Manual (2005) and insights by Habiburrahman (2024), this construct includes several innovation-focused dimensions. Production method improvement refers to adopting cleaner, more efficient, or automated processes. Operational efficiency reflects the reduction of time, waste, and cost during production and service. Service innovation includes enhancements such as digital ordering systems, contactless service, or the use of environmentally friendly packaging. Additionally, product customization flexibility highlights the business's ability to offer tailored options based on individual consumer preferences, which enhances satisfaction and perceived value.

d. Purchase Interest

Purchase interest is the dependent variable in this study and is conceptualized as a consumer's inclination to engage in a buying action. Aligned with the Theory of Planned Behavior and research by Alim & Aziz (2024), purchase interest includes four behavioral indicators. The interest to try reflects the initial curiosity or willingness to sample a product. Intention to purchase captures the likelihood that a consumer will proceed with buying the product. Desire to recommend refers to the consumer's advocacy behavior, showing their willingness to suggest the product to others. Lastly, the likelihood of repeat purchase indicates the consumer's potential to make subsequent purchases, which is essential for business sustainability and customer loyalty.

Table 1. State of the Art

No	Author(s)	Findings	Location	Index
1	Alim & Aziz (2024)	Halal self-certification significantly increases purchase intention.	Bandung	Sinta 2

2	Alfiansyah (2024)	Halal certification, awareness, and product quality significantly influence purchase interest.	Cirebon	Sinta 2
3	Rosanti et al. (2024)	Halal certification and product quality significantly affect MSME sales performance.	Pontianak	Sinta 3
4	Tuhuteru & Iqbal (2024)	MSME readiness for halal certification is driven by knowledge, service quality, and awareness.	Magelang	Sinta 3
5	Habiburrahman (2024)	Belitung MSMEs face obstacles in halal certification and innovation, affecting competitiveness.	East Belitung	Sinta 4
6	Rios et al. (2014)	Religious halal labels increase trust and purchase intention cross-culturally.	Cross-cultural	Scopus
7	Tieman (2015)	Halal certification enhances product credibility and brand trust in Southeast Asia.	Southeast Asia	Scopus
8	Awan et al. (2015)	Halal awareness, perceived value, and certification credibility jointly affect consumer behavior.	Pakistan	Scopus
9	Hadi & Wahyuni (2021)	Halal labels and packaging innovation influence satisfaction and loyalty.	Indonesia	Sinta 2
10	Wibowo & Supriyanto (2022)	Product innovation positively correlates with purchasing interest in culinary startups.	Yogyakarta	Sinta 1
11	Salsabila & Ramadhan (2023)	Halal assurance and product quality enhance trust and purchase intention.	Indonesia	Sinta 3
12	Purnamasari (2020)	Halal assurance is a determinant of food buying behavior in rural West Java.	West Java	Sinta 5
13	Rahmawati & Fauzan (2022)	Eco-innovation and halal practices attract digital-native consumers in MSMEs.	Indonesia	Sinta 4
14	Hernawan (2021)	Lack of halal training reduces MSME scalability in Sumatra Barat.	Sumatra Barat	Sinta 5
15	Fitriyani (2022)	Food quality and service innovation improve consumer loyalty in peri-urban Jakarta.	Jakarta (peri-urban)	Sinta 4

Source: Researcher's Compilation (2025).

METHOD

The research framework for this study is developed to systematically examine the influence of halal certification, product quality, and process innovation on purchase interest in the context of culinary MSMEs in Belitung. This structured model serves as the foundation for hypothesis testing and provides a clear path for analyzing how each independent variable contributes to consumer purchase interest, both individually and collectively. The Figure is shown below:

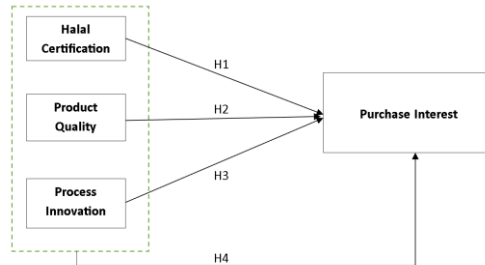


Figure 3. Research Framework

Based on the theoretical framework and literature review, the following hypotheses are proposed:

1. H1: Halal certification has a significant positive effect on the purchase interest of consumers toward culinary products of MSMEs in Belitung.
2. H2: Product quality has a significant positive effect on the purchase interest of consumers toward culinary products of MSMEs in Belitung.
3. H3: Process innovation has a significant positive effect on the purchase interest of consumers toward culinary products of MSMEs in Belitung.
4. H4: Halal certification, product quality, and process innovation simultaneously have a significant positive effect on the purchase interest of consumers toward culinary products of MSMEs in Belitung.

This study adopts a quantitative survey method with the objective of empirically analyzing the influence of halal certification, product quality, and process innovation on purchase interest among consumers of culinary MSMEs in Belitung. The research utilizes a questionnaire-based instrument designed to collect primary data from respondents who have experienced or are aware of local MSME culinary products. Sampling follows the rule of thumb of ten (10) respondents per indicator in the questionnaire (Hair et al., 2018). Given a total of 16 measurement indicators across all variables, the minimum required sample size is:

$$10 \times 16 = 160 \text{ respondents}$$

The sampling technique used is purposive sampling, targeting Muslim consumers in Belitung who have purchased from culinary MSMEs within the past year. The questionnaire is developed through the variable operationalization given below:

Table 2. Variable Operationalization

Variable	Dimension	Indicator	Scale
Halal Certification	1. Religious Assurance	I believe the product is in line with Islamic law.	Likert (1–5)

	2. Label Trust	I trust the halal label on the packaging.	Likert (1–5)
	3. Institutional Credibility	I am confident in the certification institution (e.g., MUI, BPJPH).	Likert (1–5)
	4. Transparency of Process	I understand how the product is sourced and processed.	Likert (1–5)
Product Quality	1. Physical Attributes	The product is fresh, hygienic, and tastes good.	Likert (1–5)
	2. Consistency	The product quality is consistent across purchases.	Likert (1–5)
	3. Packaging Quality	The packaging is attractive and protects the product well.	Likert (1–5)
	4. Food Safety	I feel the product complies with health and hygiene standards.	Likert (1–5)
Process Innovation	1. Production Method Improvement	The product is made using modern or improved techniques.	Likert (1–5)
	2. Operational Efficiency	The service is fast and reduces waste.	Likert (1–5)
	3. Service Innovation	The seller uses digital or innovative services (e.g., online ordering).	Likert (1–5)
	4. Product Customization Flexibility	I can customize or personalize the product (e.g., taste, packaging).	Likert (1–5)
Purchase Interest	1. Interest to Try	I am interested in trying this product.	Likert (1–5)
	2. Intention to Purchase	I intend to purchase the product soon.	Likert (1–5)
	3. Desire to Recommend	I would recommend this product to others.	Likert (1–5)
	4. Likelihood of Repeat Purchase	I will likely purchase this product again.	Likert (1–5)

Source: Researcher's Compilation (2025).

The variables in this study were operationalized based on validated theoretical constructs from previous literature. Each latent variable (Halal Certification, Product Quality, Process Innovation, and Purchase Interest) is broken down into measurable dimensions and represented by reflective indicators measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). This operational framework ensures each concept is measured consistently and enables robust statistical analysis.

This study employs a structured quantitative approach using SPSS to investigate how halal certification, product quality, and process innovation affect purchase interest in culinary MSMEs in Belitung. The entire research process is systematically carried out in the following phases:

1. Instrument Development and Validation

The first stage involves developing the research instrument specifically, a questionnaire based on the operationalized dimensions and indicators of each variable. To ensure that the instrument

accurately captures the constructs, expert validation is conducted, involving academics and practitioners familiar with halal product research. Following this, a pilot test is conducted on a small sample (around 30 respondents) to assess the reliability of the items. A Cronbach's Alpha value above 0.70 is considered acceptable, indicating that the items are internally consistent and suitable for broader data collection.

2. Data Collection

After validation, the final questionnaire is distributed to a targeted sample of at least 160 respondents. This number is based on the rule of thumb of 10 respondents per questionnaire item (Hair et al., 2010). The distribution is carried out physically and digitally (via Google Forms) to reach a wide and relevant respondent pool specifically Muslim consumers who have experienced purchasing culinary MSME products in Belitung.

3. Data Preparation in SPSS

Once responses are collected, raw data is inputted into SPSS for processing. Each questionnaire response is coded, and Likert scale items are assigned value labels to ease analysis. Data cleaning is conducted to remove incomplete or invalid responses. This step is critical to ensure the quality and accuracy of the dataset.

4. Descriptive Statistics

Descriptive analysis is used to profile the respondents. This includes calculating frequencies and percentages for demographic variables such as gender, age, education, and purchasing behavior. The study also computes the mean and standard deviation for each statement to understand general trends and variability in responses.

5. Reliability and Validity Testing

The reliability of the measurement model is tested using Cronbach's Alpha. Each construct (e.g., halal certification, product quality) must achieve a reliability score above 0.70. To assess validity, Corrected Item-Total Correlation is used, and indicators with a correlation coefficient above 0.30 are retained, ensuring that items effectively measure their respective constructs.

6. Classical Assumption Testing

Before performing regression analysis, classical assumption tests are conducted. Normality is assessed using the Kolmogorov-Smirnov or Shapiro-Wilk test. Multicollinearity is examined through Variance Inflation Factor ($VIF < 10$) and Tolerance values (> 0.1), ensuring that predictors are not excessively correlated. Linearity and heteroscedasticity are checked using scatterplots and the Glejser test to confirm the regression model's appropriateness.

7. Hypothesis Testing with Multiple Linear Regression

With the assumptions met, the core analysis is conducted through multiple linear regression. The independent variables Halal Certification (X_1), Product Quality (X_2), and Process Innovation (X_3) are tested to determine their influence on the dependent variable, Purchase Interest (Y). The analysis examines the significance of each predictor using t-tests, the overall model fit via the F-test, and the explanatory power using R^2 values. Hypotheses are accepted or rejected based on a significance level of $\alpha = 0.05$.

8. Interpretation and Conclusion

Finally, the regression coefficients (β) are interpreted to understand the direction and strength of influence of each independent variable. Based on the statistical results, managerial implications are discussed providing recommendations for MSME stakeholders and policymakers on enhancing product strategies. The study concludes with reflections on the research findings and suggestions for future research.

RESULTS AND DISCUSSION

The multiple linear regression analysis was conducted to determine the influence of three independent variables Halal Certification (TotalHC), Product Quality (TotalPQ), and Process Innovation (TotalPIIno) on the dependent variable, Purchase Interest (TotalPint), in the context of culinary MSMEs in Belitung. The results of the regression coefficients and t-tests are presented in the table above.

Table 3. Multiple Linear Regression

Independent Variable	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t-value	Sig. (p-value)	Interpretation
(Constant)	12.639	1.914	—	6.605	0.000	Significant baseline purchase interest
Halal Certification	0.061	0.064	0.081	2.953	0.042	Significant positive influence on purchase interest
Product Quality	0.055	0.052	0.090	2.051	0.005	Significant positive influence on purchase interest
Process Innovation	0.183	0.080	0.195	2.295	0.023	Strongest positive influence on purchase interest

Source: Researcher's Compilation (2025).

1. Constant (Intercept)

The unstandardized coefficient for the constant is 12.639, with a significance value (p-value) of 0.000, indicating that it is statistically significant at the 0.05 level. This means that if all independent variables are held constant, the baseline value of purchase interest is 12.639.

2. Halal Certification (TotalHC)

The unstandardized coefficient for Halal Certification is 0.061, with a t-value of 2.953 and a p-value of 0.042. Since the p-value is less than 0.05, this indicates that Halal Certification has a statistically significant and positive influence on Purchase Interest. This result suggests that improvements in halal certification such as label trust, religious assurance, and institutional credibility can enhance consumer willingness to purchase culinary products.

3. Product Quality (TotalPQ)

Product Quality has an unstandardized coefficient of 0.055, with a t-value of 2.051 and a p-value of 0.005. Again, the p-value is below the 0.05 threshold, confirming that Product Quality has a significant and positive impact on Purchase Interest. This implies that factors such as product freshness, consistency, packaging, and hygiene play a vital role in attracting and retaining consumer interest.

4. Process Innovation (TotalPI_{no})

The Process Innovation variable exhibits the highest unstandardized coefficient at 0.183, with a t-value of 2.295 and a p-value of 0.023. The result is statistically significant, indicating that Process Innovation also contributes positively and significantly to Purchase Interest. This confirms that operational improvements, customization, and technological service enhancements (e.g., digital ordering, faster delivery) increase the likelihood of consumer purchase.

In addition to the multiple linear regression analysis, an Analysis of Variance (ANOVA) test was also conducted to assess the overall significance of the regression model. The results of the F-test are presented in the table below.

Tabel 4. Simplified ANOVA Table

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F-value	Sig. (p-value)	Interpretation
Regression (Model)	16.815	3	12.272	12.646	0.032	Significant at $\alpha = 0.05$; model explains variance in Purchase Interest
Residual (Error)	113.303	132	0.858			Variation not explained by the model
Total	130.118	135				Total variance in the dependent variable (Purchase Interest)

Source: *Researcher's Compilation (2025)*.

To evaluate the overall explanatory power and goodness-of-fit of the regression model, an Analysis of Variance (ANOVA) test was performed. The results indicate that the regression sum of squares is 16.815, with 3 degrees of freedom (df), producing a mean square value of 12.272. The F-statistic is 12.646, and the corresponding significance value ($p = 0.032$) is below the conventional threshold of 0.05. This confirms that the model is statistically significant, suggesting that the independent variables Halal Certification, Product Quality, and Process Innovation jointly have a meaningful effect on the dependent variable, Purchase Interest. The residual sum of squares is 113.303 with 132 degrees of freedom, representing the variance not explained by the model. The total sum of squares is 130.118, indicating the total variation present in purchase interest. In summary, the F-test supports the rejection of the null hypothesis that all regression coefficients are zero, validating the use of the model to predict consumer behavior in the context of MSMEs in Belitung.

As the final step of the analysis, the coefficient of determination (R^2) test was conducted to examine the extent to which the independent variables jointly explain the variation in the dependent variable. The table below presents the results of this analysis, reflecting the overall explanatory power of the regression model.

Table 5. Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	Interpretation
1	0.238	0.057	0.035	0.926	The model explains 5.7% of the variance in Purchase Interest

Source: Researcher's Compilation (2025).

To assess the proportion of variance in the dependent variable that can be explained by the independent variables, a coefficient of determination test (R^2) was conducted. The results reveal that the model yields an R value of 0.238, indicating a weak positive correlation between the independent variables Halal Certification, Product Quality, and Process Innovation and the dependent variable, Purchase Interest. The R Square value of 0.057 suggests that approximately 5.7% of the variance in Purchase Interest can be explained collectively by the three predictors included in the model.

Furthermore, the Adjusted R Square value, which accounts for the number of predictors relative to the sample size, is slightly lower at 0.035, indicating a minor adjustment due to the inclusion of multiple independent variables. The Standard Error of the Estimate is 0.926, reflecting the average distance that the observed values fall from the regression line.

Although the explanatory power of the model is modest, the earlier ANOVA result indicates that the overall regression model is statistically significant. Therefore, while other external factors may influence purchase interest, the selected variables still contribute meaningfully to understanding consumer behavior in the culinary MSME context of Belitung.

The findings of this study offer important insights into the purchasing behavior of consumers toward culinary MSMEs in Belitung, a region known for its rich cultural heritage, growing tourism sector, and predominantly Muslim population. The results reveal that Halal Certification, Product Quality, and Process Innovation each have a significant and positive influence on purchase interest, highlighting critical levers for strengthening MSME competitiveness in this regional context.

Among the three variables, Process Innovation emerged as the strongest predictor of purchase interest ($B = 0.183$, $p = 0.023$). This underscores the importance of operational improvements and service innovations in Belitung's culinary MSMEs. In a tourism-driven area such as Belitung, where consumer expectations are increasingly shaped by digital convenience and personalized experiences, innovations like digital ordering systems, eco-friendly packaging, or faster service processes can elevate customer satisfaction and differentiate local MSMEs from competitors. This supports the argument by Habiburrahman (2024), who noted that innovation remains a key challenge for MSMEs in Belitung, particularly due to limitations in infrastructure, skills, and market exposure.

Product Quality also shows a significant and positive relationship with purchase interest ($B = 0.055$, $p = 0.005$), emphasizing the central role of sensory and tangible attributes such as taste, hygiene, packaging, and freshness in influencing consumer decision-making. For Belitung, where culinary tourism is a potential economic pillar, maintaining high-quality standards becomes crucial not only for local customer loyalty but also for attracting domestic and international tourists. Quality consistency can help local MSMEs build strong reputations and increase repeat visits, ultimately contributing to regional economic development.

Meanwhile, Halal Certification ($B = 0.061$, $p = 0.042$) is also shown to positively influence purchase interest. Given Belitung's predominantly Muslim demographic, halal status is not merely a regulatory formality but a reflection of religious values and social trust. Consumers in Belitung are increasingly aware of halal practices and expect transparency and institutional credibility from food vendors. However, prior studies (e.g., Tuhuteru & Iqbal, 2024; Habiburrahman, 2024) have reported challenges in halal certification adoption among MSMEs in the region, citing bureaucratic complexities and lack of awareness. This study reinforces the importance of enhancing halal literacy, easing access to certification, and promoting visible halal labeling to strengthen consumer confidence.

The ANOVA test confirmed that the regression model is statistically significant ($F = 12.646$, $p = 0.032$), suggesting that the three predictors collectively influence consumer behavior. Nevertheless, the R^2 value of 0.057 indicates that the model explains only 5.7% of the variance in purchase interest, with an adjusted R^2 of 0.035. This modest figure highlights that while the tested variables are relevant, other contextual factors unique to Belitung such as tourism seasonality, consumer income, digital literacy, and cultural preferences may also play a role in shaping consumer intentions. These should be explored in future research.

Overall, this study highlights the strategic importance of combining halal assurance, product excellence, and innovation to enhance MSME performance in Belitung. For business owners, the findings offer a pathway to build stronger customer relationships and long-term sustainability. For local government and halal authorities, the results point to the need for targeted training, infrastructure support, and simplification of certification processes tailored to the island's economic and cultural dynamics.

CONCLUSION

This study sought to explore and empirically validate the influence of halal certification, product quality, and process innovation on purchase interest in the context of culinary Micro, Small, and Medium Enterprises (MSMEs) in Belitung. Using a quantitative survey method and multiple linear regression analysis via SPSS, the study generated insights into how these three critical factors shape consumer behavioral intentions in a region characterized by its Islamic cultural values and emerging tourism potential.

The findings indicate that each of the three independent variables halal certification, product quality, and process innovation exerts a significant and positive influence on consumers' purchase interest toward culinary MSME products. Among these, process innovation emerged as the most influential factor, followed by product quality and halal certification. These results underscore the importance of innovative service delivery and production methods in enhancing consumer engagement, especially in rural or island-based economies like Belitung, where technological adoption and operational efficiency remain growth areas for MSMEs.

The study also confirms that halal certification continues to hold strong cultural and religious value among Belitung's predominantly Muslim consumers. It contributes meaningfully to purchase interest when combined with credible labeling, transparent processes, and institutional trust. Meanwhile, product quality through freshness, packaging, hygiene, and consistency remains a cornerstone of consumer satisfaction and loyalty.

Moreover, the ANOVA results support the model's overall significance, while the R^2 value (5.7%), though modest, suggests that while the three tested variables are relevant, other contextual factors (e.g., income, digital literacy, tourism seasonality) may also influence purchase intention and warrant further exploration in future studies.

Based on the results, the following recommendations can be offered to MSME owners, local authorities, and policymakers:

1. **Invest in Process Innovation:** Culinary MSMEs in Belitung should prioritize modernizing their operational and service processes (e.g., digital ordering, customized packaging) to meet evolving consumer expectations.
2. **Enhance Product Quality:** Consistency in taste, hygiene, and visual appeal can build consumer trust and increase repeat purchases. MSMEs should focus on quality control and branding strategies.
3. **Facilitate Halal Certification:** Local government and halal institutions must streamline the certification process through training, financial support, and digitalization to improve accessibility and understanding among MSMEs.
4. **Promote Consumer Awareness:** Halal literacy and consumer education campaigns can strengthen demand for certified products, reinforcing religious assurance and market confidence.
5. **Integrate Innovation with Halal and Quality Standards:** A holistic approach that combines these three elements can enhance competitiveness and open up opportunities in the culinary tourism market.

While this study provides meaningful insights, several limitations must be acknowledged:

1. The R^2 value is relatively low, indicating that other unmeasured factors also influence purchase interest.
2. The study focuses exclusively on Belitung, limiting generalizability to other regions or market segments.
3. Cross-sectional data was used, which restricts the ability to capture temporal changes in consumer behavior.
4. The sample is limited to Muslim consumers, and thus does not reflect non-Muslim perspectives, which may still be relevant in mixed-market settings.

Regarding the limitation, researcher tries to set up serial of suggestion that might be useful for the future research. The Suggestions of the future research can be:

1. **Expand Variable Scope:** Future studies could include other factors such as price sensitivity, brand image, digital marketing, or consumer lifestyle to enhance the explanatory power.
2. **Use Comparative Analysis:** A cross-regional or cross-cultural comparison could reveal how regional dynamics influence halal consumption differently.
3. **Incorporate Longitudinal Methods:** Tracking consumer behavior over time can offer deeper insight into shifting trends and post-purchase behavior.
4. **Adopt Mixed-Methods Approaches:** Combining quantitative and qualitative techniques may uncover richer explanations behind consumer motivations and MSME challenges.

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CONFLICT OF INTEREST

The author declares that this research was conducted independently and is free from any conflicts of interest with any individuals, organizations, or institutions. There are no financial, commercial, or personal relationships that could be perceived to influence the outcomes or interpretations presented in this study.

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