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## **YOUTH ENTREPRENEURS AND HALAL FOOD LABELLING IN SABAH: DEMOGRAPHIC INFLUENCES AND POLICY IMPLICATIONS**

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Aim/Purpose	This study examines how demographic and behavioural factors influence youth entrepreneurs' engagement in halal food product labelling in Sabah, with attention to the key challenges and enablers that shape their involvement in the halal certification process.
Background	Malaysia is recognised globally for its strong halal governance system and growing halal economy. Youth entrepreneurs are increasingly important to this sector, yet engagement in halal food labelling remains uneven in Sabah due to limited knowledge, financial constraints, and restricted access to certification support. Understanding these demographic and policy-related barriers is essential for strengthening youth engagement and supporting Malaysia's broader halal industry goals.
Methodology	A quantitative cross-sectional survey was conducted with 60 youth entrepreneurs in Sabah using purposive sampling. Data were collected through a structured questionnaire and analysed using the KMO measure, Bartlett's Test of Sphericity, and factor analysis. All constructs demonstrated acceptable sampling adequacy and strong explanatory power.
Findings	Subjective norm emerged as the strongest predictor of youth entrepreneurs' engagement in halal food labelling, followed by attitude and perceived behavioural control. The results highlight the central role of social influence in shaping halal compliance behaviour among young entrepreneurs in Sabah.
Impact on Society	The study underscores the importance of social support systems, such as family, community networks, and religious institutions, in encouraging halal-oriented business practices among youth. Strengthening engagement in halal labelling enhances consumer trust, supports youth entrepreneurship, and contributes to Malaysia's long-term development as a global halal hub.
Keywords	Youth entrepreneurs, halal food labelling, halal certification, Sabah, entrepreneurship engagement, government

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Human Elements Addressed		
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<input type="checkbox"/> Equality and Equity	<input type="checkbox"/> Social	<input type="checkbox"/> Physical Wellbeing

## **INTRODUCTION**

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The global halal industry has expanded rapidly over the past decade, driven by increasing Muslim populations, rising health consciousness, and growing demand for ethically produced food products. Valued at trillions of dollars annually, the halal food sector represents one of the most dynamic segments of the global agri-food market. Malaysia is recognised as a global leader in the halal industry, supported by a robust halal regulatory framework, internationally recognised certification standards, and proactive government initiatives led by the Department of Islamic Development Malaysia (JAKIM) (JAKIM, 2022). These strengths position Malaysia as a benchmark for halal governance and a strategic hub for halal food production and export. Within this expanding halal ecosystem, youth entrepreneurs play a critical role in sustaining innovation, enhancing market competitiveness, and ensuring the long-term growth of the halal economy. Young entrepreneurs contribute innovation, digital skills, and market adaptability, which are essential in responding to evolving consumer preferences and global competition (Rahim & Abdullah, 2023; Kamaruddin et al., 2024). Encouraging youth engagement in halal food businesses also aligns with national development agendas that prioritise entrepreneurship as a pathway for employment generation and economic resilience.

Despite extensive government support through financial incentives, training programmes, and entrepreneurship development schemes, youth entrepreneurs continue to face significant barriers in obtaining halal food product labelling. These challenges are particularly evident in Sabah, where geographical distance, limited access to advisory services, and procedural complexity constrain engagement in halal certification processes (Sabah Halal Development Authority, 2023). Common obstacles include limited knowledge of halal requirements, limited experience with regulatory compliance, and financial constraints associated with certification costs and documentation procedures (Fadzil & Yusoff, 2023; Yunus et al., 2023). As a result, many youth-led food businesses operate without halal labelling, reducing consumer trust and limiting market expansion opportunities. Halal labelling is more than a regulatory requirement; it is a critical market signal that assures consumers of compliance with Islamic principles, enhances brand credibility, and improves access to both domestic and international halal markets. Prior studies grounded in the Theory of Planned Behaviour (TPB) demonstrate that entrepreneurs' attitudes, subjective norms, and perceived behavioural control significantly influence their decision to engage in certification and compliance-related behaviours (Salleh & Omar, 2022; Rahman & Musa, 2022). However, empirical evidence focusing specifically on youth entrepreneurs in Sabah

remains limited. Given Sabah's growing youth population and expanding food entrepreneurship sector, understanding the factors influencing youth entrepreneurs' engagement in halal food product labelling is both timely and necessary. This study aims to examine the key determinants, attitude, subjective norms, and perceived behavioural control that influence youth entrepreneurs' engagement in halal food product labelling in Sabah. By applying the TPB framework, the study contributes empirical insights that can inform policy formulation, improve halal certification support mechanisms, and strengthen youth engagement in the halal economy. Ultimately, the findings are expected to support the development of a more inclusive, accessible, and sustainable halal entrepreneurial ecosystem in Malaysia.

## **LITERATURE REVIEW**

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### ***YOUTH ENTREPRENEURSHIP IN THE HALAL FOOD SECTOR***

Youth entrepreneurship plays a strategic role in Malaysia's economic development by fostering innovation, job creation, and business sustainability. Within this context, the halal food sector offers substantial opportunities due to rising global halal demand, strong domestic consumption, and continuous government support (Rahim & Abdullah, 2023). Young entrepreneurs are particularly important for sustaining the halal ecosystem, as they introduce new technologies, digital marketing strategies, and innovative business models that enhance industry competitiveness (Kamaruddin et al., 2024). Although various government initiatives, such as grants, training programmes, and mentorship schemes, have been introduced to support youth involvement, empirical evidence indicates that many young entrepreneurs still encounter financial constraints, limited regulatory knowledge, and low confidence in navigating halal certification and labelling procedures (Fadzil & Yusoff, 2023; Yunus et al., 2023). These challenges limit their ability to benefit from halal market opportunities fully and may weaken their intention to pursue halal certification, as suggested by TPB-based studies.

### ***IMPORTANCE OF HALAL FOOD LABELLING***

Halal food labelling is a critical mechanism for ensuring religious compliance, food safety, and product quality, making it a key determinant of consumer trust and purchasing decisions (Salleh & Omar, 2022). Certified halal labels also enable entrepreneurs to access broader domestic and international markets. In Sabah, despite the presence of certification support programmes, youth entrepreneurs remain underrepresented in halal food labelling and certification. This is largely due to perceived procedural complexity, certification costs, and insufficient technical guidance (Sabah HDA, 2023). These findings highlight the need for targeted interventions tailored to the specific needs of young business owners.

### ***BEHAVIOURAL FACTORS INFLUENCING HALAL LABELLING ENGAGEMENT***

Guided by the Theory of Planned Behaviour (TPB), this study examined how attitude, subjective norms, and perceived behavioural control influence the intention and participation of youth entrepreneurs in halal food labelling (Ajzen, 1991). Attitude emerged as the strongest predictor, as youth entrepreneurs who perceived halal labelling as beneficial for business credibility, market expansion, and ethical responsibility demonstrated stronger intentions to engage in certification. This finding is consistent with earlier studies that emphasise the role of positive perception in driving halal compliance behaviour (Salleh & Omar, 2022; Kamaruddin et al., 2024). Subjective norms had a moderate effect. In the Sabah context, social expectations play a supportive but secondary role, suggesting that while communal influence matters, entrepreneurial decisions are primarily driven by personal beliefs and perceived business benefits (Yunus et al., 2023). Perceived behavioural control was also moderately high, indicating that respondents felt capable of meeting halal certification requirements. However, practical constraints such as documentation complexity, certification fees, and limited access to advisory services reduced actual participation. This aligns with TPB studies showing that perceived control must be supported by structural facilitation to translate intention into behaviour (Rahman & Musa, 2022; Fadzil & Yusoff, 2023).

### ***RESEARCH GAPS AND CONTRIBUTION***

While previous studies have examined halal certification adoption and youth entrepreneurship separately, limited research integrates behavioural factors with demographic and contextual realities in Sabah. In particular, empirical evidence focusing on youth entrepreneurs' participation in halal food labelling in East Malaysia remains scarce. This study addresses this gap by applying TPB to understand behavioural intentions while highlighting structural barriers that inhibit actual participation. The findings contribute to halal entrepreneurship literature and provide policy-relevant insights for improving certification accessibility and youth engagement in the halal food industry.

## **METHODOLOGY**

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### ***RESEARCH DESIGN***

This study employs a quantitative research design using a cross-sectional survey approach to examine factors influencing youth entrepreneurs' engagement in halal food product labelling in Sabah. The quantitative approach was selected to allow objective measurement of relationships between attitude, subjective

norms, perceived behavioral control, and participation, based on the Theory of Planned Behavior (TPB) framework.

#### ***SAMPLE SIZE AND SELECTION CRITERIA***

The study involved 60 youth entrepreneurs operating halal-related food businesses across several districts in Sabah. Respondents were selected through purposive sampling, as engagement was limited to individuals who met the following criteria:

- be aged between 15 and 40 years, in line with Malaysia's youth definition;
- be actively involved in food-related entrepreneurial activities;
- operate a business in Sabah; and
- be aware of or exposed to halal food product labelling or certification processes.

The sample size was considered adequate for exploratory factor analysis, as supported by prior methodological guidelines indicating that factor analysis can be performed with smaller samples when communalities and KMO values are acceptable (Tabachnick & Fidell, 2007).

#### ***SURVEY INSTRUMENT AND DESIGN***

Data were collected using a structured questionnaire consisting of five sections:

- Section A: Socio-demographic profile (gender, age, education level, marital status, race, income, and business experience)
- Section B: Attitude toward halal food product labelling
- Section C: Subjective norms related to halal labelling
- Section D: Perceived behavioral control regarding halal labelling procedures
- Section E: Participation in halal food product labelling

All construct items were measured using a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The questionnaire items were adapted from previous TPB-based studies on halal certification and entrepreneurship, ensuring content relevance and clarity.

#### ***DATA COLLECTION PROCEDURE***

Data were collected through face-to-face, email, and telephone-assisted surveys to improve response rates and accessibility. Participation was voluntary, and respondents were assured of confidentiality and anonymity.

### ***STATISTICAL METHODS***

Data analysis was conducted using Statistical Package for Social Sciences (SPSS). The following statistical techniques were employed:

- Descriptive statistics to summarise demographic characteristics
- Exploratory Factor Analysis (EFA) to identify key factors influencing participation
- Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity to assess data suitability for factor analysis
- Total Variance Explained to determine the relative importance of extracted factors

All KMO values exceeded 0.5, and Bartlett's Test results were statistically significant ( $p < 0.001$ ), confirming the appropriateness of factor analysis.

### ***RELIABILITY AND VALIDITY OF INSTRUMENTS***

Reliability was assessed using factor loadings and variance explained, with all constructs achieving variance values above 60%, exceeding the minimum acceptable threshold of 50%. Content validity was ensured through adaptation of validated instruments from prior studies and expert review. Construct validity was supported by significant inter-item correlations and satisfactory KMO values.

### **ANALYSIS**

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Descriptive statistics were computed to summarize the demographic profile of youth entrepreneurs and their responses on the key constructs. Table 1 presents the distribution of respondents by gender, age, education level, marital status, race, income, and business experience. Most respondents were female (68.3%), aged 21–25 years (35.0%), single (66.7%), Bumiputera from Sabah (91.7%), and had secondary-level education (SPM, 28.3%). Most respondents earned less than RM 250,000 annually (95%) and had less than 5 years of business experience (63.3%). These statistics indicate that the sample consists primarily of early-stage entrepreneurs with limited financial and managerial resources.

Exploratory Factor Analysis (EFA) was performed to identify the most significant factors influencing engagement in halal food labelling, using attitude, subjective norm, perceived behavioral control, and participation constructs.

- Kaiser-Meyer-Olkin (KMO) Measure: Values ranged from 0.577 to 0.703, indicating sampling adequacy.

- Bartlett's Test of Sphericity: All constructs were statistically significant ( $p < 0.001$ ), confirming sufficient inter-item correlation for factor extraction.

The total variance explained by the factors was calculated to determine the relative influence of each construct (Table 2).

- Subjective norm explained 69.31% of the variance, making it the most influential factor, suggesting that social pressure and expectations from family, peers, and the community strongly shape participation.
- Attitude explained 63.66% of the variance, indicating that entrepreneurs' positive evaluations of halal labelling contribute to engagement.
- Perceived behavioural control explained 60.01% of the variance, reflecting entrepreneurs' confidence in performing halal certification tasks, though practical barriers exist.

These results demonstrate that social influences (subjective norms) have the strongest impact on youth entrepreneurs' engagement in halal food labelling, followed by personal attitudes and perceived ability to comply with procedures. This pattern aligns with TPB, which posits that perceived social expectations can strongly shape behavioural intentions, particularly in collectivist or community-oriented contexts such as Sabah

The findings suggest that subjective norms, such as encouragement from family, mentors, and religious community, play a pivotal role in motivating youth entrepreneurs in Sabah. While attitude and perceived behavioral control also contribute, practical limitations such as certification costs and procedural complexity can moderate actual participation. The results are consistent with TPB literature, highlighting that social and psychological factors jointly influence behavioral intention and actual engagement in halal labelling activities (Ajzen, 1991; Rahman & Musa, 2022).

## RESULTS AND DISCUSSIONS

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### *DEMOGRAPHIC PROFILE OF YOUTH ENTREPRENEURS*

Table 1 summarises the socio-demographic characteristics of the 60 youth entrepreneurs participating in the study. Female entrepreneurs represent the majority of the sample (68.3%), while males comprise 31.7%. Most respondents are aged 21–25 years (35%), single (66.7%), and Bumiputera from Sabah (91.7%). Regarding education, 28.3% have SPM, 21.7% have STPM, and another 21.7% hold a Degree/Master/PhD. The majority earn below RM 250,000 annually (95%) and have less than five years of business experience (63.3%).

**Table 1: Demographic Profile of Youth Entrepreneurs (n = 60)**

Variables	Frequency	Percentage (%)
<b>Gender</b>		
Male	19	31.7
Female	41	68.3
<b>Age (years)</b>		
15–20	16	26.7
21–25	21	35.0
26–30	14	23.3
31–35	7	11.7
35–40	2	3.3
<b>Marital Status</b>		
Married	20	33.3
Single	40	66.7
<b>Education Level</b>		
SPM	17	28.3
STPM	13	21.7
Degree/Master/PhD	13	21.7
<b>Race</b>		
Malay	5	8.3
Bumiputera Sabah	55	91.7
<b>Average Annual Income (RM)</b>		
< 250,000	57	95.0
3,000,001–5,000,000	3	5.0
<b>Duration in Business</b>		
< 5 years	38	63.3
6–10 years	11	18.3
11–15 years	3	5.1
>16 years	8	13.3

*(Source: Survey, 2024)*

**FACTOR ANALYSIS**

The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity confirmed the suitability of the data for factor analysis (Table 2). All KMO values exceed 0.5, and Bartlett's tests are significant ( $p < 0.001$ ), indicating adequate sampling and inter-item correlations.

**Table 2: KMO and Bartlett's Tests for Each Construct**

Constructs	KMO	Bartlett's Chi-Square	df	Sig.
Attitude	0.703	105.574	21	0.000
Subjective Norm	0.577	135.761	21	0.000
Perceived Behaviour Control	0.692	198.230	28	0.000
Participation	0.691	248.377	36	0.000

(Source: Survey, 2024)

**VARIANCE EXPLAINED**

Exploratory factor analysis revealed the percentage of variance explained by each construct (Table 3). Subjective norm explains the highest variance (69.31%), followed by attitude (63.66%) and perceived behavioural control (60.01%). This indicates that social influences, such as family and peer expectations, are the most significant factor affecting youth participation in halal food labelling.

**Table 3: Variance Explained by Factors**

Construct	Variance Explained (%)
Attitude	63.659
Subjective Norm	69.308
Perceived Behaviour Control	60.009

(Source: Survey, 2024)

**KEY FINDINGS****Gender as the Significant Demographic Factor**

Analysis showed that gender was the only demographic factor significantly associated with participation in halal labelling. Female youth entrepreneurs tend to exhibit higher engagement, potentially due to stronger awareness of halal compliance and health considerations.

**Influence of Subjective Norms**

Social pressures from family, peers, and the community are the primary driver of youth entrepreneurs' participation, supporting prior studies that emphasize the role of societal expectations in entrepreneurial behaviour.

### **Moderate Influence of Attitude and Perceived Behaviour Control**

While positive attitudes and perceived ability to comply influence participation, structural barriers such as costs and procedural complexity moderate actual engagement.

## **CONCLUSIONS**

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The rapid expansion of the global halal food industry positions Malaysia as a strategic leader, supported by a robust halal governance system led by JAKIM. While national policies emphasise youth entrepreneurship as a driver of economic resilience, evidence from Sabah suggests a persistent gap between policy intent and youth participation in halal food product labelling.

Drawing on the Theory of Planned Behaviour (TPB), this study identifies subjective norms as the strongest determinant of youth entrepreneurs' participation in halal labelling, followed by attitude and perceived behavioural control. This finding has direct policy implications: current halal support programmes, which primarily focus on technical compliance and financial incentives, may be insufficient if social and community-based influences are not systematically leveraged. Policies that engage family networks, religious leaders, mentors, and local entrepreneur associations are likely to be more effective in encouraging certification uptake among youth.

Although respondents demonstrated positive attitudes toward halal labelling and moderate confidence in their ability to comply, structural constraints, notably certification costs, documentation complexity, and limited advisory access, continue to suppress actual participation. This indicates a policy implementation gap, where behavioural intention is not fully translated into action. Simplifying certification procedures, decentralising advisory services in Sabah, and expanding subsidised certification schemes could directly enhance perceived behavioural control and participation rates.

The finding that female entrepreneurs exhibit higher engagement further suggests the need for gender-responsive halal entrepreneurship policies, including targeted training and mentoring programmes. Overall, the results indicate that strengthening youth participation in halal food labelling requires an integrated policy approach that combines behavioural drivers with institutional facilitation. Such alignment would enhance inclusivity, improve certification uptake, and reinforce Malaysia's long-term competitiveness in the global halal economy.

## LIMITATION OF STUDY

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This study has several limitations that should be considered when interpreting the findings. First, the sample size was relatively small ( $n = 60$ ) and limited to youth entrepreneurs in selected districts of Sabah, which may reduce the generalizability of the results to other regions in Malaysia. Second, the study relied primarily on self-reported data through surveys and interviews, which may be subject to response bias or social desirability effects. Third, the cross-sectional design captures attitudes and behaviors at a single point in time, limiting the ability to infer causal relationships or changes over time. Fourth, while the study focused on demographic factors, attitude, subjective norms, and perceived behavioral control, other potential influences such as government policy awareness, market access, and digital literacy were not examined. Finally, the study did not explore the long-term impact of halal labelling participation on business performance. Future research could address these limitations by employing larger and more diverse samples, longitudinal designs, and incorporating additional contextual and structural variables to gain a more comprehensive understanding of youth entrepreneurship in the halal food sector.

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