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Research Paper

Halal Feed Practices in Livestock Production: A Shari'ah Compliance Study among Livestock Raisers in Talayan, Maguindanao del Sur, Philippines

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Abstract

The halal integrity of livestock products is influenced not only by slaughtering practices but also by the feeds used throughout the production process. Ensuring that livestock is raised using halal-compliant feed is essential for maintaining halal integrity across the food supply chain. Despite the growing importance of halal assurance, limited studies have examined halal feed practices among livestock raisers in the Southern Philippines. This study assessed halal feed practices among livestock raisers in Talayan, Maguindanao del Sur, Philippines by examining feed types and sources, awareness of halal feed standards, self-reported compliance with Shari'ah requirements, challenges encountered, and proposed interventions. A quantitative descriptive research design was employed using a researcher-developed structured questionnaire administered to 50 purposively selected livestock raisers. The data were analyzed using frequency, percentage, and weighted mean. The respondents reported primarily using natural grazing, agricultural by-products, and homemade feed mixtures as sources of livestock feed. They also reported a high level of awareness regarding halal feed standards and a very high extent of self-reported compliance with Shari'ah requirements, particularly in avoiding haram ingredients, verifying feed sources, and adhering to Islamic guidelines in livestock production. The respondents likewise identified several challenges, including the high cost and limited availability of halal-certified feeds, inadequate monitoring of feed products, and insufficient feed labeling. To address these concerns, respondents strongly supported interventions such as training on halal livestock practices, community awareness programs, improved access to halal certification services, clearer feed labeling requirements, and greater involvement of government agencies in promoting halal-certified feeds. The findings provide baseline evidence that may inform agricultural extension programs, halal certification initiatives, and policy development aimed at strengthening halal-compliant livestock feeding practices in Muslim farming communities.

Keywords: *Halal Feed, Livestock Production, Shari'ah Compliance, Halal Assurance, Animal Feed*

INTRODUCTION

The concept of *halal* occupies a fundamental position in Islam, guiding Muslims in matters of food consumption, production, and commercial activities. Derived from Islamic law, *halal* refers to what is lawful and permissible, while *haram* denotes what is prohibited. In food production, halal compliance extends beyond the final product to include sourcing, processing, transportation, storage, and livestock management. Islamic scholars further emphasize that food must be both *halal* and *tayyib* (wholesome), ensuring that production processes uphold ethical, hygienic, and welfare considerations (Al-Qaradawi, 2013; Al-Zuhayli, 2003). Consequently, the halal integrity of livestock products depends not only on slaughtering practices but also on the feeds and other production inputs used throughout the animal's life cycle.

The rapid growth of the global halal industry has increased attention to halal integrity across the food supply chain. Recent studies emphasize that halal assurance should begin at the farm level and continue through processing, distribution, and retailing (Mok et al., 2020; Rejeb et al., 2021).

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Likewise, traceability systems and halal assurance mechanisms have become essential for verifying the origin and composition of production inputs, including animal feeds, which may contain additives or ingredients of uncertain halal status (Najmi et al., 2023). These developments highlight the importance of livestock feed management as a critical component of halal compliance.

Despite the growing literature on halal certification, supply chain governance, consumer behavior, and traceability, empirical studies examining halal feed practices at the farm level remain limited (Ali et al., 2017; Rejeb et al., 2021). More recent research has focused on halal logistics, digital traceability, sustainability, and governance mechanisms within halal food supply chains (Rahman et al., 2024; Vanany et al., 2019), yet relatively little attention has been given to how livestock raisers implement Shari'ah-compliant feeding practices in their daily operations. This gap is particularly evident in the Southern Philippines, where Muslim-majority agricultural communities depend on livestock production as an important source of livelihood. Given the increasing use of commercial feeds and modern production inputs, understanding halal feed practices at the primary production stage is essential for strengthening halal assurance and preserving halal integrity from farm to consumer.

Unlike previous studies that have primarily examined halal certification systems, consumer perceptions, marketing strategies, and supply chain governance, this study focuses on farm-level halal feed practices among livestock raisers in a Muslim-majority agricultural community. Specifically, it examines feed types and sources, awareness of halal feed standards, self-reported compliance with Shari'ah requirements, implementation challenges, and proposed interventions. By providing empirical evidence from Talayan, Maguindanao del Sur, the study addresses an underexplored area of halal agriculture and provides baseline evidence that may inform initiatives aimed at strengthening halal-compliant livestock production.

Hence, this study aimed to assess halal feed practices in livestock raising in the Municipality of Talayan, Maguindanao del Sur, Southern Philippines, from a Shari'ah compliance perspective. Specifically, it sought to: (1) identify the livestock feeds used by raisers in terms of type and source; (2) assess the level of awareness of livestock raisers regarding halal standards in animal feed; (3) determine the extent to which feed practices comply with Shari'ah requirements on halal consumption; (4) identify the challenges encountered by raisers in ensuring halal-compliant livestock feed practices; and (5) propose evidence-based measures and interventions for improving halal compliance in livestock feed practices.

LITERATURE REVIEW

This study is anchored on the Islamic concept of *Halalan Tayyiban*, which emphasizes that food consumed by Muslims must be both *halal* (lawful) and *tayyib* (wholesome). The Qur'an instructs believers to consume what is lawful and good (Qur'an 2:168; 5:88), highlighting that halal compliance extends beyond the final product to include all stages of food production. According to Al-Qaradawi (2013), halal integrity encompasses the sourcing of raw materials, livestock management, processing, storage, and distribution. Within livestock production, this principle underscores the importance of ensuring that animal feeds are derived from permissible and safe sources consistent with Shari'ah requirements.

The study is further guided by the Halal Assurance System (HAS), which provides a systematic approach for maintaining halal integrity throughout the production chain. The system emphasizes preventive measures, traceability, verification, and continuous monitoring to ensure compliance with halal standards (Ali et al., 2017). Since livestock feed represents one of the earliest inputs in animal production, evaluating feed ingredients and verifying their sources are essential components of halal assurance and contribute to preserving the halal status of livestock products.

The study also recognizes the importance of farm-level halal compliance, which highlights the role of livestock raisers' awareness and management practices in implementing halal principles. Although previous studies have largely focused on halal certification, consumer behavior, and supply chain governance, recent research has increasingly emphasized strengthening halal integrity at the primary production stage through traceability and responsible farm management (Rejeb et al., 2021; Vanany et al., 2019). These perspectives support the need to examine halal feed practices within local livestock production systems.

Guided by these theoretical perspectives, the study assumes that livestock raisers' awareness of halal feed standards influences their self-reported compliance with Shari'ah requirements, while challenges related to feed availability, labeling, certification, and monitoring affect the implementation of halal-compliant feeding practices. These relationships provide the theoretical basis for examining feed types and sources, awareness, self-reported compliance, challenges, and proposed interventions among livestock raisers in Talayan, Maguindanao del Sur.

RESEARCH METHOD

This study employed a quantitative descriptive research design to assess halal feed practices in livestock production from a Shari'ah compliance perspective among livestock raisers in Talayan, Maguindanao del Sur. The design was appropriate because it enabled the researchers to systematically describe the existing types and sources of livestock feed, assess the respondents' level of awareness of halal feed standards, determine the extent of their self-reported compliance with Shari'ah requirements, identify the challenges encountered in implementing halal-compliant feeding practices, and examine proposed interventions without manipulating any study variables.

The study was conducted in Talayan, Maguindanao del Sur, a predominantly Muslim community where livestock raising serves as an important source of livelihood. The respondents consisted of 50 livestock raisers selected through purposive sampling based on their active involvement in livestock production and familiarity with livestock feeding practices. This sampling technique ensured that they possessed the relevant knowledge and experience necessary to provide information aligned with the objectives of the study.

Data were collected using a structured questionnaire developed by researchers based on the objectives of the study and a review of relevant literature on halal livestock production, halal assurance systems, and Shari'ah compliance in animal feed. The questionnaire consisted of two sections. The first section gathered the respondents' demographic and farm-related characteristics, including age, gender, years of livestock-raising experience, type of livestock raised, and scale of operation. The second section comprised five constructs corresponding to the objectives of the study: (1) types and sources of livestock feed, (2) awareness of halal feed standards, (3) self-reported compliance with Shari'ah requirements, (4) challenges in ensuring halal-compliant feed practices, and (5) proposed measures and interventions for strengthening halal-compliant feed practices.

The questionnaire employed construct-specific five-point Likert scales. Feed utilization was rated from 5 = Always to 1 = Never; awareness from 5 = Very Aware to 1 = Not Aware; self-reported compliance from 5 = Very High Extent to 1 = Very Low Extent; and the challenges encountered and proposed measures from 5 = Strongly Agree to 1 = Strongly Disagree. Responses were summarized using weighted mean scores computed for each indicator and composite construct. The weighted mean scores were interpreted using the scoring and interpretation intervals presented in Table 1, with the corresponding descriptive labels varying according to the construct being measured.

Table 1. Weighted Mean Interpretation Intervals Used in the Study

Weighted Mean	General Interpretation
4.21–5.00	Highest response category
3.41–4.20	High response category
2.61–3.40	Moderate response category
1.81–2.60	Low response category
1.00–1.80	Lowest response category

Note. The corresponding descriptive labels varied depending on the construct being measured (e.g., Always, Very Aware, Very High Extent, or Strongly Agree).

Prior to data collection, the questionnaire underwent expert content validation by three faculty experts. Two validators from the Department of Islamic Studies evaluated the instrument's consistency with Shari'ah principles and halal concepts, while the third validator, a faculty member from the Natural Sciences Department with expertise in research methodology, assessed its clarity, organization, and methodological appropriateness. The validators' recommendations were incorporated into the final version of the questionnaire before its administration. Statistical reliability testing, such as Cronbach's alpha, was not conducted; therefore, this methodological limitation should be considered when interpreting the findings.

After obtaining the necessary permission from the appropriate local authorities, the researchers personally administered the questionnaires to the selected respondents. Before administration, the purpose of the study was explained, informed consent was obtained, and respondents were assured that participation was voluntary and that their responses would remain confidential and anonymous. The completed questionnaires were checked for completeness, retrieved by the researchers, encoded, and prepared for statistical analysis.

The data collected were analyzed using frequency counts, percentages, and weighted mean. Frequency counts and percentages were used to describe the demographic characteristics of the respondents and summarize categorical variables, while weighted mean was employed to determine the respondents' level of awareness, self-reported compliance, perceived challenges, and proposed measures and interventions related to halal feed practices. These statistical techniques provided a systematic basis for describing and interpreting the data in accordance with the objectives of the study. Throughout the research process, ethical principles were observed by ensuring voluntary participation, informed consent, confidentiality, anonymity, and respect for Islamic beliefs, local traditions, and cultural values.

FINDINGS AND DISCUSSION

This section presents and discusses the findings of the study on halal feed practices in livestock production from a Shari'ah compliance perspective among livestock raisers in Talayan, Maguindanao del Sur. The results are organized according to the specific objectives of the study, including the demographic and farm profile of the respondents, the types and sources of livestock feeds utilized, the extent of compliance of feeding practices with Shari'ah requirements, the level of awareness regarding halal standards in animal feed, the challenges encountered in ensuring halal-compliant feeding practices, and the development of evidence-based recommendations for improving halal compliance. The findings are presented using appropriate statistical analyses and are interpreted in relation to existing literature and relevant Islamic principles to provide a comprehensive understanding of halal feed practices within the study area.

Table 2. Demographic Characteristics of the Livestock Raisers

Variable	Category	(f)	(%)
Age	18–30 years	6	12%
	31–40 years	18	36%
	41–50 years	14	28%
	51 years and above	12	24%
Gender	Male	25	50%
	Female	25	50%
Years of Livestock Raising	Less than 1 year	6	12%
	1–3 years	16	32%
	4–6 years	20	40%
	7–10 years	7	14%
	More than 10 years	1	2%
Type of Livestock Raised	Goat	25	50%
	Chicken	18	36%
	Duck	7	14%
Scale of Operation	Small scale	12	24%
	Medium scale	7	14%
	Large scale	31	62%

Table 2 presents the demographic characteristics of the livestock raisers who participated in the study. The results show that the largest proportion of respondents belonged to the 31–40 years age group (36%), followed by those aged 41–50 years (28%) and 51 years and above (24%). Only 12% of the respondents were between 18 and 30 years old. These findings indicate that livestock raising in Talayan, Maguindanao del Sur is primarily undertaken by mature adults who are likely to possess greater farming experience and practical knowledge acquired through years of involvement in agricultural activities. The predominance of middle-aged respondents suggests a relatively stable and active workforce capable of making informed decisions regarding livestock management and feed selection.

In terms of gender, male and female respondents were equally represented, with each accounting for 50% of the total sample. This balanced distribution demonstrates that livestock production serves as a shared livelihood activity among both men and women within the community. The finding further implies that awareness and implementation of halal feed practices are not limited to a particular gender group but are likely influenced by collective household and community participation in livestock production.

Regarding livestock-raising experience, most respondents had been engaged in livestock production for four to six years (40%), followed by those with one to three years of experience (32%). Respondents with seven to ten years of experience accounted for 14%, while only 2% had more than ten years of experience. The results suggest that the majority of raisers possess moderate experience in livestock management, providing them with sufficient exposure to feeding practices, animal nutrition, and farm operations. Such experience may contribute positively to their understanding of feed quality, sourcing decisions, and compliance with halal requirements.

With respect to the type of livestock raised, goats were the most commonly raised animals (50%), followed by chickens (36%) and ducks (14%). No respondents reported raising cattle or other livestock species. The dominance of goat and poultry production may be attributed to their adaptability to local environmental conditions, relatively lower production costs, and suitability for smallholder farming systems. These livestock species also constitute important sources of food and

income within Muslim communities, making the assessment of halal feed practices particularly relevant to ensuring the halal integrity of animal-derived products.

In terms of scale of operation, the majority of respondents operated large-scale livestock enterprises (62%), while 24% managed small-scale operations and 14% maintained medium-scale farms. This finding indicates that livestock production represents a significant economic activity among many respondents. Larger-scale operations often require greater quantities of commercial feeds and production inputs, thereby increasing the importance of ensuring that feed ingredients and sourcing practices comply with Shari'ah requirements. Consequently, the scale of operation may influence the degree to which livestock raisers prioritize halal considerations when selecting and utilizing animal feeds.

Collectively, the demographic characteristics of the respondents indicates that the study involved experienced livestock raisers actively engaged in goat and poultry production, with many operating at a relatively large scale. These characteristics provide a meaningful context for examining halal feed practices and assessing the extent to which livestock production activities conform to Shari'ah principles in Talayan, Maguindanao del Sur.

Types and Sources of Livestock Feed Used by the Respondents

This section presents the types and sources of livestock feed used by the respondents. It summarizes the frequency with which different feed sources are utilized in livestock production based on the respondents' reported practices.

Table 3. Types and Sources of Livestock Feed Used by the Respondents

Indicators	Weighted Mean	Interpretation
Commercial feeds	3.47	Often
Homemade/mixed feeds	4.13	Often
Natural grazing/pasture	4.57	Always
Agricultural by-products	4.43	Always
Feed from verified and trusted sources	4.23	Always
Overall Mean	**4.17**	**Often**

The findings indicate that livestock raisers utilized a combination of natural, locally available, and commercial feed resources to support livestock production. Natural grazing or pasture obtained the highest weighted mean, indicating that it remained the primary feed source among respondents. This practice may be attributed to the abundance of natural forage and its lower cost compared with commercially prepared feeds. From an Islamic perspective, naturally occurring vegetation is generally considered a permissible feed source and is consistent with the principles of *halalan tayyiban*, which emphasize lawful, wholesome, and ethically produced food (Kamali, 2010). Likewise, Iqbal et al. (2020) identified animal feed as a critical control point in halal livestock production because feed quality contributes to maintaining halal integrity throughout the production process.

Agricultural by-products, such as rice bran and corn, and feeds obtained from verified and trusted sources were also frequently utilized. Their use suggests that livestock raisers maximize locally available resources while considering the reliability of feed ingredients. Such practices are consistent with sustainable livestock production and halal assurance principles, which emphasize responsible resource utilization, traceability, and transparency in production inputs (Alzeer, 2020; Najmi et al., 2023). The relatively high use of verified feed sources further indicates that respondents recognize the importance of ingredient verification in minimizing the risk of contamination with non-halal substances and maintaining confidence in halal livestock production

(Tieman et al., 2012).

Homemade or mixed feeds were likewise commonly used, reflecting the respondents' preference for preparing feeds from locally available ingredients that allow greater control over feed composition. This practice may strengthen halal compliance when raisers possess adequate knowledge of permissible ingredients and avoid doubtful (*shubhah*) substances, as emphasized by Riaz & Chaudry (2003) and Al-Qaradawi (2013). In contrast, commercial feeds received the lowest weighted mean, suggesting relatively lower reliance, possibly because of concerns regarding cost, ingredient transparency, and uncertainty about feed composition. Similar concerns have been highlighted in halal supply chain studies, which emphasize the importance of monitoring production inputs to preserve halal integrity (Ali et al., 2017; Rejeb et al., 2021).

Collectively, the findings suggest that livestock raisers primarily depend on natural grazing, agricultural by-products, verified feed sources, and homemade feed mixtures while using commercial feeds less frequently. These feeding practices appear generally consistent with the principles of *halalan tayyiban*, which integrate lawful production, sustainability, transparency, and ethical stewardship. Nevertheless, continued education on feed verification and greater access to halal-certified feed products remain important for further strengthening halal-compliant livestock production (Fuseini et al., 2017).

Level of Awareness of Livestock Raisers Regarding Halal Standards in Animal Feed

This section presents the respondents' level of awareness regarding halal standards in animal feed. It summarizes their awareness of key aspects related to halal feed practices and Shari'ah compliance.

Table 4. Level of Awareness of Livestock Raisers Regarding Halal Standards in Animal Feed

Indicators	Weighted Mean	Interpretation
I am aware of halal standards for animal feed.	4.80	Very Aware
I understand the concept of *haram* and *shubhah* in feed.	4.02	Aware
I know that feed affects the halal status of animals.	4.60	Very Aware
I am aware of halal certification for animal feeds.	4.70	Very Aware
I understand the importance of monitoring feed sources.	4.80	Very Aware
Overall Mean	**4.59**	**Very Aware**

The findings indicate that livestock raisers generally demonstrated a very high level of awareness regarding halal standards in animal feed. The highest-rated indicators were awareness of halal standards for animal feed and the importance of monitoring feed sources, suggesting that respondents recognize the need to verify feed origin and composition as part of halal livestock production. This awareness is significant because feed constitutes one of the earliest inputs in the halal food chain and contributes to preserving the halal integrity of animal-derived products. Tieman (2011) emphasized that halal assurance begins with careful control of production inputs, while Iqbal et al. (2020) identified feed management as a critical component of halal livestock production.

Respondents also reported a high level of awareness that feed influences the halal status of animals and recognized the importance of halal certification for animal feeds. These findings suggest that livestock raisers understand that halal compliance extends beyond slaughtering practices to include the entire production process. Halal certification and traceability provide assurance regarding the origin and permissibility of feed ingredients, thereby strengthening confidence in halal livestock production (Abd Latif et al., 2014; Zailani et al., 2015). Such awareness

may encourage more informed decisions when selecting feed products and contribute to maintaining halal integrity throughout the production chain.

Among the indicators, understanding of the concepts of *haram* and *shubhah* in animal feed received the lowest weighted mean, although respondents were still generally aware of these concepts. This result may indicate that while livestock raisers recognize the importance of halal principles, distinguishing doubtful (*shubhah*) ingredients from clearly permissible or prohibited substances remains more challenging. Kamali (2010) explained that avoiding doubtful matters serves as a precautionary approach in Islamic jurisprudence, while Al-Qaradawi (2013) emphasized that Muslims are encouraged to avoid uncertainty to preserve compliance with Islamic dietary principles.

Generally, the findings suggest that livestock raisers possess sufficient awareness of halal feed standards, feed certification, and feed monitoring practices to support halal-compliant livestock production. Nevertheless, the relatively lower awareness regarding *shubhah* ingredients indicates the need for continued education and extension programs focusing on ingredient verification and halal feed evaluation. Strengthening livestock raisers' knowledge in these areas may further improve informed decision-making and reinforce halal assurance at the farm level (Bashir et al., 2019; Najmi et al., 2023).

Extent of Self-Reported Compliance with Shari'ah Requirements

This section presents the respondents' self-reported extent of compliance with Shari'ah requirements in livestock feed practices. It summarizes their reported adherence to halal feeding principles and related practices.

Table 5. Extent of Self-Reported Compliance with Shari'ah Requirements in Livestock Feed Practices

Indicators	Weighted Mean	Interpretation
I ensure that feeds used do not contain *haram* ingredients.	4.80	Very High Extent
I check the ingredients of commercial feeds before use.	4.70	Very High Extent
I avoid feeds with doubtful (*shubhah*) components.	3.70	High Extent
I prioritize halal-certified feed products.	4.80	Very High Extent
I follow Islamic guidelines in raising livestock.	4.80	Very High Extent
Overall Mean	**4.56**	**Very High Extent**

The findings indicate that livestock raisers reported a very high extent of compliance with Shari'ah requirements in their livestock feeding practices. The highest-rated indicators were ensuring that feeds did not contain *haram* ingredients, prioritizing halal-certified feed products, and adhering to Islamic guidelines in livestock raising. These responses suggest that respondents considered halal principles an important basis for selecting and managing livestock feeds. According to Al-Qaradawi (2013), halal compliance encompasses all stages of food production, including the selection of permissible production inputs. Likewise, Tieman (2011)emphasized that preserving halal integrity requires careful control of production practices beginning at the farm level.

Respondents also reported a very high extent of checking the ingredients of commercial feeds before use, reflecting a proactive approach toward ingredient verification and feed selection. This practice aligns with halal assurance principles that emphasize transparency, traceability, and

verification of production inputs to reduce the risk of non-halal contamination (Najmi et al., 2023). Ingredient verification enables livestock raisers to make informed decisions regarding feed composition and supports confidence in the halal status of livestock products.

Among the indicators, avoiding feeds containing doubtful (*shubhah*) components obtained the lowest weighted mean, although it remained within the high extent category. This finding may suggest that identifying *shubhah* ingredients is more challenging than recognizing clearly permissible or prohibited feed components. Kamali (2010) noted that avoiding doubtful matters is an important precautionary principle in Islamic jurisprudence because uncertainty may compromise halal integrity. This result highlights the need for continued education on feed ingredient evaluation and the interpretation of halal certification information.

Taken together, the findings suggest that livestock raisers generally reported implementing livestock feeding practices consistent with Shari'ah requirements. Nevertheless, because these findings are based on self-reported practices, they should not be interpreted as independent verification of actual compliance. Continued training, improved access to halal-certified feeds, and strengthened feed monitoring mechanisms may further enhance the consistent implementation of halal-compliant livestock production (Ali et al., 2017; Fuseini et al., 2017).

Challenges in Ensuring Halal-Compliant Feed Practices

This section presents the challenges encountered by livestock raisers in ensuring halal-compliant feed practices. It summarizes the respondents' level of agreement regarding the barriers affecting the implementation of halal feed standards.

Table 6. Challenges in Ensuring Halal-Compliant Feed Practices

Indicators	Weighted Mean	Interpretation
High cost of halal-certified feeds	4.52	Strongly Agree
Limited availability of halal-certified feeds	4.44	Strongly Agree
Limited monitoring and regulation of feed products	4.48	Strongly Agree
Unclear labeling of feed ingredients	4.40	Strongly Agree
Insufficient knowledge on halal feed standards	4.30	Strongly Agree
Overall Mean	**4.43**	**Strongly Agree**

The findings indicate that livestock raisers strongly agreed that they encountered several challenges in ensuring halal-compliant feed practices. The highest-rated concern was the high cost of halal-certified feeds, followed by limited monitoring and regulation, limited availability of halal-certified feed products, unclear feed labeling, and insufficient knowledge of halal feed standards. These responses suggest that the implementation of halal feed practices is influenced not only by individual awareness but also by economic, institutional, and informational constraints.

The high cost and limited availability of halal-certified feeds emerged as the most significant barriers to compliance. Although halal certification provides assurance regarding the permissibility of feed products, certified feeds may be less accessible or more expensive than conventional alternatives. Such constraints may discourage consistent use of halal-certified feeds despite respondents' willingness to comply with Shari'ah requirements. Similar challenges have been reported in halal supply chains, where operational costs and product availability affect the adoption of halal-certified products (Saidah & Lestari, 2021; Tieman, 2015).

Respondents also identified limited monitoring and regulation of feed products and unclear ingredient labeling as important concerns. These findings suggest that insufficient oversight and lack of transparent product information may make it difficult for livestock raisers to verify whether

feed ingredients originate from permissible sources. Effective halal assurance depends on traceability, transparency, and reliable regulatory mechanisms that enable producers to make informed decisions regarding feed selection (Ali & Suleiman, 2018). Strengthening monitoring systems and improving feed labeling may therefore enhance confidence in halal feed products and support compliance with halal standards.

Although respondents generally demonstrated a high level of awareness of halal principles, they also recognized that insufficient knowledge regarding halal feed standards remains a challenge. This finding suggests that awareness alone may not always translate into a comprehensive understanding of ingredient verification, certification procedures, and Shari'ah-compliant feed management. Ambali & Bakar (2014) emphasized that halal awareness should extend beyond recognizing halal labels to include a broader understanding of halal principles and compliance requirements. In essence, the findings suggest that strengthening education, improving access to halal-certified feeds, enhancing regulatory oversight, and promoting transparent labeling may help address these barriers and further support halal-compliant livestock production.

Proposed Measures and Interventions for Strengthening Halal-Compliant Feed Practices

This section presents the proposed measures and interventions for strengthening halal-compliant feed practices. It summarizes the respondents' level of agreement on strategies aimed at improving Shari'ah compliance in livestock production.

Table 7. Proposed Measures and Interventions for Strengthening Halal-Compliant Feed Practices

Indicators	Weighted Mean	Interpretation
Conduct training on halal livestock practices	4.78	Strongly Agree
Conduct community awareness programs on halal feed	4.74	Strongly Agree
Require clearer labeling of feed ingredients	4.70	Strongly Agree
Improve access to halal certification services	4.66	Strongly Agree
Encourage LGUs, ministries, offices, and relevant agencies to promote halal-certified feeds	4.62	Strongly Agree
Overall Mean	**4.70**	**Strongly Agree**

The findings indicate that livestock raisers strongly supported a range of measures to strengthen halal-compliant feed practices and improve the implementation of halal standards in livestock production. The highest-rated interventions included conducting training on halal livestock practices, expanding community awareness programs, requiring clearer labeling of feed ingredients, improving access to halal certification services, and strengthening the involvement of government agencies in promoting halal-certified feeds. These responses suggest that respondents viewed education, transparency, certification, and institutional support as key strategies for improving halal compliance.

Training on halal livestock practices and community awareness programs received the strongest support, reflecting the respondents' recognition of the importance of knowledge in implementing halal feed standards. Educational initiatives can improve understanding of feed ingredient evaluation, halal certification requirements, and Shari'ah-compliant livestock management. Muhammad et al. (2009) emphasized that effective implementation of halal assurance systems depends on stakeholders' understanding of halal principles, while Bashir et al. (2019) found that greater awareness positively influences halal-related attitudes and practices.

Respondents also strongly agreed on the need for clearer feed labeling and improved access to halal certification services. Transparent labeling enables livestock raisers to verify feed

ingredients and make informed decisions, while accessible certification services provide assurance regarding compliance with halal standards. Soon et al. (2017) highlighted the importance of transparency and traceability in strengthening food integrity, whereas Abd Latif et al. (2014) emphasized that effective certification systems enhance confidence in halal products and support regulatory compliance.

Finally, respondents recognized the important role of Local Government Units (LGUs), ministries, offices, and other relevant agencies in promoting halal-certified feeds and supporting halal livestock production. Institutional collaboration through extension services, policy support, and partnerships with certification bodies may help address many of the challenges identified in this study. Overall, the findings suggest that strengthening halal-compliant feed practices requires a coordinated approach that integrates education, certification, transparency, and institutional support to enhance Shari'ah compliance and promote the sustainable development of halal livestock production (Vanany et al., 2019).

CONCLUSIONS

This study assessed halal feed practices among livestock raisers in Talayan, Maguindanao del Sur, from a Shari'ah compliance perspective. The findings revealed that respondents primarily relied on natural grazing, agricultural by-products, verified feed sources, and homemade feed mixtures, while commercial feeds were used less frequently. Livestock raisers also demonstrated a high level of awareness of halal feed standards and reported a very high extent of compliance with Shari'ah requirements in their livestock feeding practices. However, respondents identified several challenges, particularly the high cost and limited availability of halal-certified feeds, limited monitoring and regulation of feed products, unclear feed labeling, and gaps in knowledge regarding halal feed standards. To address these concerns, respondents strongly supported interventions focusing on capacity building, community awareness, improved feed labeling, greater access to halal certification services, and stronger institutional support. In summary, the findings suggest that strengthening halal-compliant livestock production requires not only individual awareness and self-reported adherence to Shari'ah principles but also improved access to halal resources, effective regulatory mechanisms, and collaborative support from relevant stakeholders.

Implications

The findings provide baseline empirical evidence that may inform initiatives aimed at strengthening halal-compliant livestock production in Muslim farming communities. They highlight the importance of enhancing livestock raisers' knowledge of halal feed standards through training and extension programs while improving access to halal-certified feed products and certification services. The study also underscores the need for clearer feed labeling, strengthened monitoring systems, and greater collaboration among government agencies, agricultural extension workers, and halal certification bodies to promote transparency and confidence in livestock feed practices. While the findings are based on respondents' self-reported practices, they provide useful insights for policymakers, halal certification authorities, and agricultural stakeholders in developing programs that support the implementation of Shari'ah-compliant livestock production.

LIMITATION & FURTHER RESEARCH

This study has several limitations that should be considered when interpreting the findings. First, the study employed a descriptive research design using a relatively small sample of livestock raisers from a single municipality in Maguindanao del Sur. Consequently, the findings may not be generalizable to livestock raisers in other geographic locations or production settings. Second, the data were based on respondents' self-reported practices and perceptions and were not

independently verified through field observations, feed inspections, or laboratory analyses. In addition, although the researcher-developed questionnaire underwent expert content validation, statistical reliability testing (e.g., Cronbach's alpha) was not conducted. These methodological considerations should be taken into account when interpreting the findings because the reported level of Shari'ah compliance reflects the respondents' own assessments rather than objectively verified compliance.

Future studies may address these limitations by including larger and more geographically diverse samples across different regions of the Philippines. Future studies employing mixed-methods or observational approaches, including farm visits, feed ingredient verification, and laboratory analysis, may provide a more comprehensive assessment of halal-compliant feed practices. Future studies are encouraged to establish the statistical reliability of the instrument using appropriate measures, such as Cronbach's alpha, before its application in broader populations. Future studies may also examine the roles of certification authorities, government agencies, and feed manufacturers in promoting halal livestock production, as well as evaluate the effectiveness of training programs and policy interventions designed to strengthen halal assurance at the farm level.

CONFLICT OF INTEREST

The author declares no conflict of interest

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