

Quail Agribusiness Entrepreneurship in Nigeria

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ABSTRACT

Quail agribusiness entrepreneurship venture is a minimal expense, exceptionally simple and high-benefit business. Up till now, the investment of agribusiness in quails is not yet famous. This study aimed to examine the quail agribusiness entrepreneurship in Nigeria. Cross-sectional data were obtained from 164 quail agribusiness entrepreneurs selected through a multi-stage sampling procedure. Descriptive and inferential statistics were used for data analysis. Results showed that the major motives for the agribusiness entrepreneurs' venture in quail agribusiness were that quail agribusiness and its egg production investment are profitable (23.78%). The technical information on quail production was mainly sourced from their associates/poultry-related agribusiness entrepreneurs (31.10%) and 59.76% had interactions with the agricultural extension officers while 40.85% obtained their funds to finance the quail agribusiness from their savings. The identified most prevalent constraint always faced by the quail agribusiness entrepreneurs include the inaccessibility to supply centers and markets (3.89) which necessitated the major training needs of quail meat processing and handling of quail eggs (26.22%). The study concluded that the age of the quail agribusiness entrepreneurs ($r = 0.42$; $p \leq 0.05$), their gross profit margin per production cycle ($r = 0.85$; $p \leq 0.05$) and their years of experience in quail agribusiness ($r = 0.71$; $p \leq 0.05$) are important contributors in determining the stock size of quails reared in Nigeria. It was recommended that stakeholders in the quail agribusiness in Nigeria should improve their business capacity through collective capacity building/training programs and awareness creation on production and the nutritional and medicinal value of quails.

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Keywords:

Agribusiness; Agriculture; Entrepreneurship; Nigeria; Quails

1. Introduction

Poultry production remains a significant area in the business of animals in Nigeria (Ajala et al., 2021). Agribusiness of quails is a remarkable rural business in Nigeria. However, few individuals who have enveloped it appreciate both the dietetic and prosperity esteem coming about because of consuming the bird and its products (Kinyua, 2022).

Quail husbandry plays a significant role in the sector of domesticated animals, particularly within the poultry industry in Nigeria, as highlighted by Adeoti and Baruwa (2019). Quails, being small game birds, are raised for both their eggs and meat, as emphasized by Jeke et al. (2018). Like most tamed creatures, there are various quail breeds with assortments of qualities (Lukanov, 2019). Japanese quail was brought into Nigeria right around thirty years prior (Fayeye et al., 2019) to make the poultry sub-area predominant and assist with supplementing home-grown fowl production through gigantic quail husbandry. Japanese quail is resilient, flourishes in little enclosures, is reasonable to keep and they are impacted by normal poultry sicknesses yet are decently illness-safe (Devaki et al., 2019). The Japanese quail undergoes rapid development, typically maturing in about 1.5 months, achieving peak egg production within its 50-day transformative phase. The overall production cycle spans approximately 300 to 320 days, as noted by Ahmed and Al-Barzinji (2020). With proper care, hens can lay up to 200 eggs in their most productive year. The lifespan of a Japanese quail typically ranges from just two to slightly over two years. The eggs of Japanese quails exhibit a mottled brown color and are often coated with a light blue, pasty substance. An average quail egg weighs about 10g, making up roughly 8% of the quail hen's body weight, as indicated by Silva et al. (2020).

Quail eggs are highly regarded as a practical food due to their rich nutritional content, serving as a source of essential proteins, vitamins, and lipids including phospholipids, and polyunsaturated fatty acids (Abadi et al., 2018). Previous research studies by Shevchenko et al. (2017) and Brasil et al. (2022) have highlighted the abundant vitamins and minerals present in quail eggs. Despite their small size, quail eggs offer a nutritional value three to four times greater than that of chicken eggs. Regular consumption of quail eggs is beneficial in combatting various ailments; these eggs act as a natural remedy for intestinal issues, boost the immune system, enhance memory and brain activity, stabilize the nervous system, aid in addressing anemia by elevating hemoglobin levels, and detoxify the body by removing toxins and heavy metals. Additionally, they contribute to the treatment of conditions such as tuberculosis, asthma, and diabetes, as well as the prevention of kidney, liver, and gallbladder stones (Redoy et al., 2017; Jeke et al., 2018; Dudusola et al., 2019). The nutritional advantages of quail eggs surpass those of other eggs, as they are abundant sources of antioxidants, minerals, and vitamins that provide more sustenance compared to many other food options (Ali and Abd El-Aziz, 2019).

The utilization of animal protein in Nigeria ranks among the lowest globally, as highlighted by Adekunmi et al. (2017). The demand for quail birds and their products is on the rise in Nigeria due to their therapeutic, nutritional, and economic benefits, as noted by Muhammad-Lawal et al. (2017). To keep up with this growing demand, concerted efforts are needed to boost quail production levels in the country, as emphasized by Nadal et al. (2018). Quail farming is considered a highly promising venture to bridge the animal protein gap in Nigeria (Oladimeji et al., 2019). The potential of quail production is significant, garnering particular attention due to its various uses and the abundance of by-products. However, the prospects of poultry production, especially with quails, have not been fully realized, as many agricultural entrepreneurs tend to focus primarily on chicken production, overlooking other bird species that offer similar economic, social, and nutritional benefits.

Given the aforementioned, the study was designed to address the problem and provide answers, determining respondents' characteristics, their motives of the quail agribusiness entrepreneurs for the investment, sources of technical information, interaction with research and extension representatives, sources of funds, the training

needs and the prevalent constraints to their quail agribusiness entrepreneurship. Thus, the null hypothesis stated that the age of the quail agribusiness entrepreneurs, their gross profit margin per production cycle, and their years of experience in quail agribusiness do not have a significant relationship with the stock size of quails reared.

2. Materials and Methods

The research was carried out within the geopolitical regions of North-Central and South-West in Nigeria. Two States were selected from each region. In North-Central, Kogi and the Kwara States were selected, and in South-West, Ondo and the Oyo States were selected. These four states are states with a substantial proportion of quail agribusiness entrepreneurs in Nigeria. Kogi State covers a landmass of 29,833 km², has a latitude of 9.9309° N, a longitude of 6.6906° E, and comprises 21 local government areas. Kwara State covers a landmass of 36,825 km², has a latitude of 8.9669° N, a longitude of 4.3874° E, and comprises 16 local government areas. Ondo State spans an area of 15,500 square kilometers, positioned at a latitude of 6.9149° N and a longitude of 5.1478° E. It consists of 18 local government areas. On the other hand, Oyo State covers a land area of 28,454 square kilometers, situated at a latitude of 8.1574° N and a longitude of 3.6147° E. This state is divided into 33 local government areas.

The survey focused on agribusiness entrepreneurs involved in various aspects of quail agribusiness ventures, including quail farming, quail egg production, marketing of quail products, and value-added activities related to quails. These entrepreneurs were engaged in these initiatives either as their primary occupation or as a secondary endeavor. The data collection involved gathering both primary and secondary data from these individuals. A structured questionnaire was administered by trained enumerators to collect primary data from the quail agribusiness entrepreneurs. Additionally, secondary data were obtained from the enterprise production records of these entrepreneurs.

The study employed a multistage sampling approach. Initially, Kwara and Kogi States in North-Central Nigeria, as well as Oyo and Ogun States in South-West Nigeria, were purposefully selected due to the substantial number and accessibility of quail agribusiness entrepreneurs. A simple random sampling method was then used to choose quail agribusiness entrepreneurs from a provided list of registered cooperative quail agribusiness entrepreneurs sourced from the Agricultural Development Project (ADP) of the selected states. For those quail agribusiness entrepreneurs not registered with the ADP, a snowball sampling technique was utilized. In total, 164 quail agribusiness entrepreneurs were included in the sample across the selected states.

Primary data were obtained on respondents' characteristics, their motives of the quail agribusiness entrepreneurs for the investment, sources of technical information, interaction with research and extension representatives, sources of funds, training needs and the prevalent constraints to their quail agribusiness entrepreneurship which was measured on a Likert-type scale ranging from always experienced (4) to rarely experienced (1). The data were analyzed using descriptive and inferential statistics (Pearson Product Moment Correlation).

3. Results and Discussion

3.1 *Personal characteristics of respondents*

Table 1 shows that the majority of the respondents (60.37%) had a gross profit margin of more than 200,000 Naira per production cycle per farm while (39.63%) had a gross profit

margin of less than 200,000 Naira per production cycle per farm. The average gross profit margin of 374,613.82 Naira per production cycle per farm was realized. The majority of the respondents (53.05%) had a stock size of more than 200 quails while 46.95 had fewer than 200 quails. The average stock size of quails was 227 quails. The majority of the respondents (67.68%) were males while 32.32% were female. This showed that quail agribusiness is a male-dominated practice (Shalome and Nojuvwewwo, 2021).

Table 1. Personal Characteristics of the Respondents

Variable		Frequency	Percentage
Income (Gross Profit Margin) Mean=374,613.82 Naira	≤ 200,000	65	39.63
	> 200,000	99	60.37
Stock size Mean=227 Quails	≤ 200	77	46.95
	> 200	87	53.05
Sex	Female	53	32.32
	Male	111	67.68
Age Mean=48.95 Years	≤ 30	23	14.02
	30-50	81	49.39
	> 50	60	36.59
Educational attainment	Primary education	6	3.66
	Secondary education	37	21.95
	Tertiary education	121	73.78
	Students	20	12.2
	Agripreneur	67	40.85
Major occupation	Paid job	34	20.73
	Artisans	8	4.27
	Private non-agribusiness entrepreneur	19	11.59
	Retiree	16	9.76
Agribusiness experience Mean=9.27 Years	≤ 5	91	55.49
	> 5	131	79.88

A significant portion (49.39%) of the respondents fell within the 30-50 years age bracket, with a mean age of 48.95 years. This finding aligns with the research by Olorunfemi et al. (2016) and Sanou et al. (2022), emphasizing that individuals engaged in poultry agribusiness tend to be more active and innovative during their economically productive years. This suggests a high potential for receptiveness to novel ideas and innovations (McCown, 2002; Vecchio et al., 2020).

A substantial majority (73.78%) of the respondents possessed tertiary education, while 21.95% had completed post-primary education only, and 3.96% had primary education as their highest level. This educational distribution indicates a well-educated respondent pool. Uddin et al. (2019) highlighted that a higher level of education provides a solid foundation for effective extension services.

Regarding occupation, a notable proportion (40.85%) of the respondents considered agribusiness as their primary occupation. The data revealed that 20.73% were salaried

individuals, 12.2% were students, and 11.59% were private non-agribusiness entrepreneurs, while others included retirees (9.76%) and craftspeople (4.27%).

In terms of quail agribusiness experience, a significant majority (59.15%) of the respondents had more than 5 years of experience, while 40.85% had less than 5 years of quail rearing experience. The mean quail agribusiness experience among the respondents was 9.27 years.

3.2 *Motives of the quail agribusiness entrepreneurs for investment*

Table 2 revealed that the main motive for investing in quail agribusiness was that quail agribusiness and its egg production investment are profitable (23.78%). This indicates that there is a high demand for produced quail birds and their eggs (Shalome and Nojuvwevwo, 2021); thus, consumers are willing to pay for the product (Saka et al., 2018). Other motives for investing in quail agribusiness include boosting the declining poultry industry and improving the protein deficit in the nation's diet (20.73%), quail birds have a higher feed utilization (18.29%), the health benefits of quail birds and eggs (17.68%), little space is required for quail agribusiness and its egg production (12.80%) and family consumption (6.71%).

Table 2. Motives of the quail agribusiness entrepreneurs for investment

Motives for investing in quail agribusiness	Frequency	Percentage
Quail agribusiness and its egg production investment is profitable	39	23.78
Boosting the declining poultry industry and improving the protein deficit in the nation's diet	34	20.73
Quail birds have a higher feed utilization	30	18.29
Health benefits of quail birds and eggs	29	17.68
Little space is required for quail agribusiness and its egg production	21	12.80
Family consumption	11	6.71

3.3 *Quail agribusiness entrepreneurs' sources of technical information and their interaction with research and extension representatives*

Regardless of the interaction of the majority of the quail agribusiness entrepreneurs with extension representatives (59.76%), technical information on quail production was mainly sourced from fellows and poultry-related agribusiness entrepreneurs (31.10%) and the farmers' society (24.39%). The interaction with the extension representatives may be associated with the novelty of the quail business enterprise in the list of concerned livestock agribusiness enterprises for extension information diffusion in the agronomic region while the information sourced from their fellow, poultry-related agribusiness entrepreneurs and agribusiness entrepreneurs' society may be attributed to the importance of information sharing amongst agribusiness entrepreneurs (Adesoji et al., 2020).

Table 3. Quail agribusiness entrepreneurs’ sources of information and their interaction with research and extension representatives

Attributes		Frequency	Percentage
Sources of technical information	Fellows and poultry-related agribusiness entrepreneurs	51	31.1
	Agribusiness entrepreneurs’ society	40	24.39
	Research and Extension representatives	33	20.12
	Mass media	27	16.46
	Others (Produce purchasers and Input suppliers)	13	7.93
Interaction with extension representative (s)	Had contact	98	59.76
	Had no contact	66	40.24

3.4 Sources of funds of the quail agribusiness entrepreneurs

The result presented in Table 4 showed that the majority of the respondents (40.85%) obtained their funds to finance the quail agribusiness from their savings while 34.15% sourced their funds from the cooperative society/commodity association. Thus, 25% of the quail agribusiness entrepreneurs obtained their funds from financial institutions, friends, and relatives. The implication of this is that quail agribusiness entrepreneurs have a means funding of their quail agribusiness enterprise (Prabhu, 2020).

Table 4 illuminates the diverse funding sources utilized by quail agribusiness entrepreneurs to finance their ventures. Notably, the fact that 40.85% of respondents utilized personal savings underscores a strong commitment and confidence in their quail farming initiatives. Relying on personal savings indicates a level of self-reliance and dedication to the success of their enterprises. Additionally, 34.15% of obtaining funds from cooperative societies or commodity associations suggests a collaborative approach to financing, possibly indicating shared resources, pooled investments, or collective support within the agricultural community (Andriessse and Lee, 2021). This cooperative financing approach signifies a communal effort and potentially grants access to larger funding pools or resources for the entrepreneurs involved (Ridley-Duff and Bull, 2021).

Table 4. Sources of funds of the Quail agribusiness entrepreneurs

Variable	Frequency	Percentage
Personal savings	67	40.85
Cooperative Society/Commodity Association	56	34.15
Financial institutions	32	19.51
Friends and relatives	9	5.49

Moreover, the 25% of quail agribusiness entrepreneurs sourcing funds from financial institutions, friends, and relatives highlights an openness to external financial support networks. Seeking assistance from these sources reflects a need for additional capital beyond personal resources and cooperative support. This diverse funding landscape showcases the adaptability and resourcefulness of quail agribusiness entrepreneurs in exploring various avenues to secure the necessary funding (Fregolente and Carvalho, 2023). It also indicates a willingness to leverage external connections and financial

mechanisms to sustain and expand their quail farming enterprises (Iwara and Kilonzo, 2022).

Overall, the implication of Table 4 suggests that while personal savings and cooperative support serve as foundational pillars, the willingness to seek external funding sources signifies an openness to growth and a proactive approach to securing necessary resources for the success and development of their quail agribusiness ventures.

3.5 Prevalent constraints of the quail agribusiness entrepreneurs

Table 5 presents the prevalent constraints always faced by the quail agribusiness entrepreneurs including the inaccessibility to supply centers and markets (3.89), the difficulties experienced in meat handling and processing of the quail birds (3.61), lack of technical knowledge, and inadequate specialized information in quail feed preparation and formulation (3.55). The low market asking price of quail birds and eggs (2.97) was the prevalent constraint often experienced by the quail agribusiness entrepreneurs while the paucity of establishment stock (2.45), challenges in brooding (2.31) and the insufficiency of capita (2.16) were the prevalent constraints occasionally encountered by the quail agribusiness entrepreneurs. Thus, quail infections/outbreaks/diseases (1.43) and predators/theft/farm bio-insecurity (1.29) were rarely experienced constraints to the quail agribusiness entrepreneurs.

Table 5. Prevalent constraints of quail bird production

Prevalent Constraints	Mean
Difficulty in reaching supply centers and markets	3.89
Difficulties in meat handling and processing	3.61
Lacking technical knowledge and inadequate specialized information in feed preparation and formulation	3.55
The low market asking price of quail birds and eggs	2.97
The paucity of establishment stock	2.45
Challenges in brooding	2.31
Insufficiency of capita	2.16
Infections/Outbreak/Diseases	1.43
Predators/Theft/Insecurity	1.29

The table illustrates the spectrum of challenges faced by entrepreneurs in the quail agribusiness industry. At the forefront, the inaccessibility to supply centers and markets emerges as a major hurdle, scoring significantly high at 3.89. This issue directly impacts distribution channels and market reach, potentially limiting the entrepreneurs' ability to efficiently transport and sell their quail products. Following closely, the difficulties in handling and processing quail meat (3.61) alongside the lack of technical knowledge for feed preparation (3.55) highlight critical gaps in operational expertise. These constraints not only affect the quality of the end product but also indicate a need for enhanced training and education in processing techniques and nutritional aspects for optimal quail farming (Kinyua, 2022).

Moreover, the relatively lower market asking price for quail birds and eggs (2.97) signifies a challenge in achieving favorable profitability. This aspect could stem from various factors such as oversupply, market perception, or inadequate marketing strategies, demanding a reassessment of pricing strategies or value proposition communication to potential buyers (Muranko et al., 2021). Furthermore, constraints like the scarcity of establishment stock (2.45), challenges in brooding (2.31), and insufficient

capital (2.16) highlight operational and financial limitations. These challenges, though encountered occasionally, still pose significant barriers to consistent and sustainable business operations, underscoring the need for robust planning, financial management, and resource allocation within the quail agribusiness sector (Ho and Donaldson, 2021).

In essence, the results presented in Table 5 underscore a spectrum of challenges across logistical, operational, and financial domains in the quail agribusiness industry. Addressing these constraints demands a multi-faceted approach encompassing improved market access strategies, enhanced technical knowledge dissemination, optimized production processes, and effective financial management. Mitigating these challenges will not only bolster the efficiency and profitability of individual enterprises but also contribute to the overall growth and sustainability of the quail agribusiness sector (Talaviya et al., 2020).

3.6 Training needs of the Quail agribusiness entrepreneurs

Table 6 displays the training requirements identified among quail agribusiness entrepreneurs within the study area. The primary training needs recognized were in quail meat processing and handling of quail eggs, accounting for 26.22% of the respondents, followed closely by training in care, breeding, management, and conservation techniques for quail birds, accounting for 24.39%. Additional training needs included quail egg preservation, management, and conservation techniques (17.68%), quail bird brooding techniques (12.20%), disease/infection/outbreak management and vaccination administration (10.98%), and strategies for quail marketing approaches (8.54%).

The table outlines the prevalent training requirements identified among quail agribusiness entrepreneurs, shedding light on the specific areas where these entrepreneurs seek additional knowledge and skill development. The primary training needs revolving around quail meat processing and handling of quail eggs signify a critical gap in expertise. This emphasizes the necessity for training programs focusing on processing techniques to ensure optimal quality and safety standards for quail meat and eggs, catering to consumer preferences and market demands. Additionally, the prominence of training needs in care, breeding, management, and conservation techniques for quail birds highlights the entrepreneurs' recognition of the importance of enhancing their knowledge base in fundamental aspects crucial for successful quail farming. Strengthening their understanding of bird care, breeding practices, and effective management can significantly impact the productivity, health, and sustainability of their quail agribusiness operations (Kinyua, 2022).

Moreover, the identified need for training in quail egg preservation, disease management, brooding techniques, vaccination administration, and marketing strategies underscores the multifaceted nature of skill gaps within the quail agribusiness sector. The demand for knowledge on egg preservation and disease management indicates a desire to improve product shelf life and mitigate health risks among quail flocks, which are pivotal for maintaining product quality and ensuring farm biosecurity (Islam et al., 2023). Furthermore, the interest in brooding techniques and vaccination administration signifies a quest for expertise in ensuring the health and welfare of quail chicks, reflecting a proactive approach toward successful breeding and rearing practices (Clearinghouse, 2022). Additionally, the interest in training on marketing approaches reflects the recognition among entrepreneurs of the significance of effective marketing strategies in enhancing market penetration and profitability within the quail industry.

(Krizanova et al., 2019). Addressing these training needs is critical for empowering entrepreneurs with the requisite skills and knowledge to navigate the complexities of quail farming, ultimately fostering improved production outcomes and overall sustainability within the sector.

Table 6. Training needs of the Quail agribusiness entrepreneurs

Area of needs	Frequency	Percentage
Quail meat processing and handling of quail eggs	43	26.22
Care, breeding, management, and conservation of quail bird techniques	40	24.39
Quail egg preservation, management, and conservation techniques	29	17.68
Quail brooding techniques	20	12.20
Disease/infection/ outbreak management and vaccination administration	18	10.98
Marketing approaches and strategies	14	8.54

3.7 Personal characteristics of respondents

The Pearson Product Moment Correlation result showed that the age of the quail agribusiness entrepreneurs ($r = 0.42$; $p \leq 0.05$), their gross profit margin per production cycle ($r = 0.85$; $p \leq 0.05$), and their years of experience in quail agribusiness ($r = 0.71$; $p \leq 0.05$) had a significant relationship with their stock size of quails reared. This outcome is synonymous with the findings of Muhammad-Lawal et al., (2017) having stated that agribusiness experience correlates with the acquisition of good skills in the adoption of innovation in the field of poultry production. This is as presented in Table 7.

The Pearson Product Moment Correlation results suggest significant relationships between certain factors and the stock size of quails reared by agribusiness entrepreneurs.

Age of Entrepreneurs ($r = 0.42$; $p \leq 0.05$): The positive correlation between age and the stock size of quails reared implies that older entrepreneurs tend to have larger quail stocks. This could indicate that with increasing age, there might be more experience, resources, or a longer duration of involvement in the industry, allowing for the accumulation of a larger stock of quails (Parisi et al., 2020).

Gross Profit Margin per Production Cycle ($r = 0.85$; $p \leq 0.05$): The strong positive correlation between gross profit margin per production cycle and stock size suggests that entrepreneurs with larger stocks tend to achieve higher profits per production cycle. This relationship signifies that as the stock size of quails reared increases, there's a corresponding increase in the profit margin per production cycle, indicating potential economies of scale or efficiencies in larger-scale quail farming operations (Kwesisi, et al., 2022).

Years of Experience in Quail Agribusiness ($r = 0.71$; $p \leq 0.05$): The notable positive correlation between years of experience and stock size indicates that entrepreneurs with more experience in quail agribusiness tend to rear larger stocks of quails. This relationship may suggest that accumulated knowledge, expertise, and established networks over time contribute to managing and expanding the quail stock effectively (Tong et al., 2023).

Overall, these significant relationships underscore the importance of various factors—age, profitability, and experience—in influencing the stock size of quails reared by

agribusiness entrepreneurs. It implies that a combination of experience, financial success, and possibly accumulated resources plays a crucial role in scaling up quail farming operations, potentially leading to larger stock sizes. Understanding these correlations can assist in strategic planning and decision-making for entrepreneurs aiming to expand their quail farming enterprises.

Table 7. The correlation of selected variables and the stock size of quails reared

Variable	r-value	Decision
Age	0.42**	Significant
Gross profit margin per production cycle	0.85**	Significant
Years of experience	0.71**	Significant

Remark: ** means $p \leq 0.05$

4. Conclusion

Based on the findings of the study, we established and concluded that the quail agribusiness entrepreneurs in Nigeria are predominantly male, they are over 30 years old, literate/educated with post-secondary education, agribusiness entrepreneurs, quite experienced in quail agribusiness, have a quail stock size of more than 200 quails with a gross profit margin more than 200,000 Naira per production cycle per farm. The major motives for the agribusiness entrepreneurs' venture in quail agribusiness were that quail agribusiness and its egg production investment are profitable and to boost the declining poultry industry and improve the protein deficit in the nation's diet. The technical information on quail production was mainly sourced from their associates and poultry-related agribusiness entrepreneurs and the farmers' society, thus, had interactions with the agricultural extension officers. They mostly obtained their fund to finance the quail agribusiness from their savings and the cooperative society/commodity association. However, the prevalent constraints always faced by the quail agribusiness entrepreneurs include the inaccessibility to supply centers and markets, the difficulties experienced in meat handling/processing of the quail birds, and the lack of technical knowledge/inadequate specialized information in quail feed preparation and formulation which necessitated the major training needs of the quail agribusiness entrepreneurs on quail meat processing and handling of quail eggs in addition to the care, breeding, management, and conservation of quail bird techniques. On the other hand, the age of the quail agribusiness entrepreneurs, their gross profit margin per production cycle, and their years of experience in quail agribusiness had a momentous relationship with the stock size of quails reared.

The study underscores the importance of raising awareness regarding the nutritional and medicinal value of quail, aiming to boost demand for this product and subsequently enhance its marketability. Additionally, there is a pressing need to develop comprehensive training programs and provide advisory services, facilitated by extension services and other stakeholders, to address capacity gaps among quail agribusiness entrepreneurs. To further support these entrepreneurs, the establishment of well-structured credit schemes, implementation of policies to mitigate high input costs, improved access to veterinary services, and the establishment of effective marketing channels should be facilitated by government bodies, non-governmental organizations (NGOs), and other relevant stakeholders. These collective efforts will not only encourage quail agribusiness entrepreneurs but also unlock the potential benefits

of quail agribusiness, contributing to health advantages, food and nutritional security, and improved livelihoods for these entrepreneurs and the broader population.

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