

The Role of Managerial, Technical, and Marketing Factors in the Success of Young Entrepreneurs in Beef Cattle Farming

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Abstract

Indonesia's beef cattle farming industry holds significant potential to enhance national food security and the economy, but young entrepreneurs in this sector encounter numerous structural obstacles. This study aims to examine the key factors contributing to the success of young entrepreneurs in beef cattle agribusiness, emphasizing technical, managerial, and marketing aspects. A mixed-methods research design with a sequential explanatory approach was used, gathering data from 150 young entrepreneurs via questionnaires and from 12 successful entrepreneurs through in-depth interviews. Multiple regression analysis indicated that managerial factors had the most substantial effect ($\beta = 0.40$, $p < 0.001$), followed by technical factors ($\beta = 0.30$, $p < 0.001$) and marketing factors ($\beta = 0.25$, $p < 0.001$). The qualitative results corroborated these findings, stressing the significance of financial management, the integration of technology, and creative marketing strategies. Scatter plot analysis revealed a strong positive correlation between managerial capabilities, profit margins, and business growth. This study highlights the urgent need for comprehensive policy initiatives that improve access to finance, provide managerial training, and offer technological support, drawing lessons from successful global programs. Strengthening these factors is essential for enhancing the sustainability and competitiveness of youth-driven beef cattle businesses.

Keywords: beef cattle farming, young entrepreneurs, managerial competencies, technical factors, marketing strategies

Introduction

Indonesia's beef cattle farming industry plays a pivotal role in bolstering national food security and contributing to the nation's economic development. According to the Indonesian Statistics Agency (BPS), the national cattle population reached 17.4 million head in 2023, with beef production amounting to 532,000 tons (BPS, 2023). The sector faces numerous challenges despite its considerable potential, including beef price fluctuations and distribution system inefficiencies. Within this context, the role of young entrepreneurs in the beef cattle industry is becoming increasingly significant. These entrepreneurs are capitalizing on emerging market opportunities and developing innovative solutions to address the sector's challenges. This research aims to identify the critical factors contributing to the success of young entrepreneurs in the beef cattle agribusiness sector in Indonesia.

As a key sector, beef cattle farming is integral to Indonesia's strategy for enhancing food security and improving the livelihoods of its citizens. The Ministry of Agriculture of the Republic of Indonesia reports that the per capita consumption of beef reached 3.3 kg in 2022, with projections indicating a rise to 3.8 kg by 2025 (Ministry of Agriculture, 2022). This growing demand for beef aligns with an expanding market; however, young cattle farmers continue to face significant structural challenges such as limited access to capital, inefficient feed management,

and the volatility of market prices. Research conducted by Pan et al. (2024) indicates that young farmers with over five years of experience tend to exhibit greater success in managing their operations, having developed more effective coping strategies to address issues such as feed management and financing.

A critical determinant of success in this sector lies in the personal attributes of entrepreneurs, particularly their managerial capabilities and educational background. According to research by Kubkomawa et al. (2018), young cattle farmers who possess formal education in agriculture or animal husbandry, coupled with strong managerial skills, are more likely to achieve higher success rates. These individuals are better equipped to adopt new technologies and manage their resources effectively, directly impacting the productivity and profitability of beef cattle farming operations. This underscores the significance of individual factors, particularly education and experience, as key contributors to entrepreneurial success in the industry.

In addition to individual factors, the role of technology in enhancing the success of beef cattle farming cannot be overstated. The Food and Agriculture Organization (Hadley et al., 2023) reports that adopting advanced agricultural technologies, such as livestock health monitoring systems and data-driven feed management techniques, can increase productivity by up to 15%. Young entrepreneurs who have access to these technologies and can utilize them effectively are more likely to optimize their farming practices. As such, this study also emphasizes the importance of technology adoption as a key factor in determining the success of young entrepreneurs in beef cattle farming.

External environmental factors including government policies, market conditions, and distribution systems, significantly affect the success of young entrepreneurs in this sector. The Ministry of Trade (2023) indicates that Indonesia imported 520,000 tons of beef in 2023, contributing to domestic market price fluctuations. Young farmers with access to efficient market channels and distribution networks are better positioned to mitigate the impacts of market volatility and strengthen their competitive advantage. Research by Raja et al. (2022) suggests that young entrepreneurs who develop efficient distribution networks and implement innovative marketing strategies tend to perform better in domestic and international markets.

This study aims to investigate the key factors contributing to young entrepreneurs' success in Indonesia's beef cattle farming industry, focusing on personal attributes, technology adoption, and environmental policies. By gaining a deeper understanding of these factors, the research seeks to provide informed policy recommendations that will support sector growth, encourage young entrepreneurs' participation, and enhance the overall competitiveness of Indonesia's beef cattle industry.

Methodology

This study adopted a mixed-methods design, incorporating a sequential explanatory approach combining quantitative and qualitative data collection methods. The study was conducted in two phases: initially, quantitative data was gathered and analyzed, followed by qualitative data collection to provide a more detailed understanding and context for the preliminary results. This methodology allowed for an in-depth investigation of the factors influencing the success of young entrepreneurs in the beef cattle farming sector. The mixed-methods approach is beneficial for establishing causal relationships through quantitative analysis while offering richer insights by examining personal experiences and contextual factors in qualitative terms (Fetters et al., 2013).

Population and Sampling

The study's population consisted of young entrepreneurs (aged 18-40) engaged in beef cattle farming throughout Indonesia. A stratified random sampling method was used in the quantitative phase to ensure representation from different scales of beef cattle farming, including small, medium, and large-scale operations. 150 young entrepreneurs were selected, with the sample stratified by enterprise size. This sampling technique ensures that various farming operations are adequately represented, allowing for more generalizable conclusions (Taherdoost, 2016). In the qualitative phase, 12 successful entrepreneurs were chosen using purposive sampling based on specific success criteria such as financial performance, business growth, and innovative management practices. Purposive sampling included participants with relevant experiences who could provide detailed insights into the factors that led to their success (Palinkas et al., 2015). Success was measured by profitability, business expansion, and innovation in farming practices.

Data Collection

Data for this study were collected through two primary methods: a structured questionnaire for quantitative data and semi-structured interviews for qualitative data.

1. **Quantitative Data Collection:** A detailed questionnaire was created to collect data on the key factors influencing entrepreneurial success in beef cattle farming. The survey contained 30 questions, divided into three primary categories: technical aspects, managerial aspects, and marketing aspects. Each question was evaluated using a Likert scale to measure the level of agreement with various statements about these factors. The section on technical factors focused on aspects such as cattle management, veterinary care, and feed quality; the managerial section addressed areas like financial management, decision-making, and resource allocation; and the marketing section explored strategies for beef sales, market access, and competitiveness. The validity of the questionnaire was confirmed through expert reviews and pilot testing. The final Cronbach's alpha score was 0.89, indicating strong internal reliability (Taherdoost, 2016). The completed questionnaire was then distributed to 150 participants.
2. **Qualitative Data Collection:** In-depth, semi-structured interviews were carried out with 12 successful young entrepreneurs to gain insight into their experiences, strategies, and the challenges they face in beef cattle farming. The interviews centered on business strategies, obstacles, and the critical factors contributing to their success. The semi-structured format provided flexibility, enabling participants to elaborate on unexpected topics during the conversation, enhancing their understanding of their perspectives (Kvale, 2007). Each interview lasted 45 minutes and was recorded for transcription and subsequent thematic analysis.

Research Instruments

The research methods comprised a detailed questionnaire and an interview protocol. The structured questionnaire assessed the technical, managerial, and marketing factors influencing entrepreneurial success. It employed a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," to measure different levels of agreement with the statements. The semi-structured interview protocol contained open-ended questions addressing business strategies, challenges, and key success factors. It was designed with flexibility, enabling the interviewer to delve deeper into topics based on the responses provided by the participants.

Data Analysis

The quantitative data were analyzed using descriptive and inferential statistical methods. Descriptive statistics, such as frequencies, means, and standard deviations, were used to summarize respondent characteristics and the distribution of key variables. Inferential analysis used multiple regression to identify key factors contributing to entrepreneurial success. The regression model used was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where Y represents the dependent variable (success in beef cattle farming), X_1 , X_2 , X_3 are the independent variables (technical, managerial, and marketing factors), β_0 is the intercept, and β_1 , β_2 , β_3 are the coefficients. Multiple regression analysis was performed using SPSS software, and statistical significance was determined using p-values, with values below 0.05 considered significant. This analysis provided insight into how each factor affected success in beef cattle farming (Field, 2013).

The qualitative data were analyzed using thematic analysis, a widely used method for identifying and analyzing patterns or themes in qualitative data (Braun & Clarke, 2006). The analysis involved familiarizing oneself with the data, generating initial codes, searching for themes, reviewing the themes, and finalizing the key themes. This approach provided a rich understanding of the entrepreneurs' experiences, strategies, and the factors influencing their success.

Results and Discussion

Characteristics of Respondents

The demographic profile of the participants in this study offers important insights into the characteristics of young entrepreneurs involved in Indonesia's beef cattle farming industry. The average age of the respondents was 32 ± 4.5 years, suggesting that most participants fall within the productive age range, which is advantageous for adaptability to innovations and responsiveness to technological advancements in livestock farming (Widiarta et

al., 2021). This finding supports the notion that being in the prime age group is a strategic asset for fostering entrepreneurial development, particularly when addressing the growing competitiveness in the beef cattle sector. Additionally, the gender distribution showed that 73% of the respondents were male, while only 27% were female. This aligns with previous research, indicating that beef cattle farming in Indonesia remains predominantly male-dominated. Women's participation gradually increases as access to training and business financing improves (Zvomuya, 2022).

Most respondents (60%) had completed only secondary education, 30% held higher education degrees in agriculture or animal science, and 10% had different academic backgrounds. The predominance of secondary education suggests gaps in the technical and managerial skills required to develop innovation-driven businesses (Kubkomawa et al., 2018). Kubkomawa et al. (2018), also highlighted that formal education, especially in fields like agribusiness and animal husbandry, significantly enhances business management skills and facilitates modern technology adoption. Therefore, improving human capital through specialized technical training is critical for ensuring the long-term sustainability of beef cattle enterprises led by young entrepreneurs.

Table 1. Characteristics of Respondents

Characteristics	Category	Frequency (n)	Percentage (%)
Age (years)	Mean $\pm$ Standard Deviation	32 $\pm$ 4.5	-
Gender	Male	109	73%
	Female	41	27%
Education Level	High School	90	60%
	Higher Education (Agriculture)	45	30%
	Others	15	10%
Experience (years)	Mean $\pm$ Standard Deviation	7 $\pm$ 2.5	-
Business Scale	Small Scale	75	50%
	Medium Scale	45	30%
	Large Scale	30	20%
	< 2 Hektar	60	40%
Land Ownership (Hectares)	2 - 5 Hektar	52	35%
	> 5 Hektar	38	25%

Source: Primary data analysis (2025)

The respondents had an average of 7 $\pm$ 2.5 years of experience in beef cattle farming, suggesting that most had progressed beyond the initial startup phase and were now entering a period of business growth and stabilization. This experience is essential for enhancing adaptability and making strategic decisions, particularly when managing fluctuations in feed prices, livestock health, and the dynamics of the beef market (Abdillah et al., 2024). The practical expertise acquired over these years directly contributes to greater technical and managerial efficiency in their operations.

Regarding business scale, the majority of respondents ran small-scale operations (50%), followed by medium-scale (30%) and large-scale businesses (20%). The predominance of small-scale farms highlights ongoing challenges such as limited capital, insufficient production resources, and restricted market access, which hinder business expansion for young entrepreneurs. The business size directly impacts production capacity, cost-effectiveness, and the ability to meet market demand sustainably (Raja et al., 2022). On the other hand, the existence of large-scale operations among the respondents illustrates the success of some young entrepreneurs in scaling their businesses through enhanced marketing networks, product diversification, and the adoption of supportive technologies.

Additionally, the distribution of land ownership showed that 40% of respondents owned less than 2 hectares, 35% managed between 2 and 5 hectares, and only 25% controlled more than 5 hectares. Limited access to land, particularly for small-scale farmers, hinders the production of forage, the development of livestock housing, and the expansion of production capacity (Abdillah et al., 2024). This challenge highlights the need for policies that facilitate land access and infrastructure development, particularly for small- and medium-scale farmers, to ensure the sustainability of their businesses.

The demographic profile underscores the significant potential of young entrepreneurs in advancing the beef cattle industry in Indonesia, particularly given their productive age and adequate business experience. However, key challenges remain, including low levels of formal education, the prevalence of small-scale operations, and limited access to land. To overcome these barriers, strategic interventions are required, including investments in human capital, technological support, and policy frameworks tailored to the needs of young entrepreneurs in the livestock

sector. Such initiatives are crucial for boosting productivity and improving the competitiveness of beef cattle businesses both domestically and internationally.

Factors Influencing Business Success

A combination of technical, managerial, and marketing factors significantly influences the success of young entrepreneurs in beef cattle farming. Through multiple regression analysis, this study identified the contribution of these factors to business success, confirming their statistical significance and practical relevance in the context of the Indonesian livestock sector.

Table 2. Multiple Regression Analysis of Factors Influencing Business Success

Independent Variables	Standardized Coefficient (β)	p-value	Significance
Technical Factors	0.30	< 0.001	Significant
Managerial Factors	0.40	< 0.001	Significant
Marketing Factors	0.25	< 0.001	Significant

Source: Primary data analysis (2025)

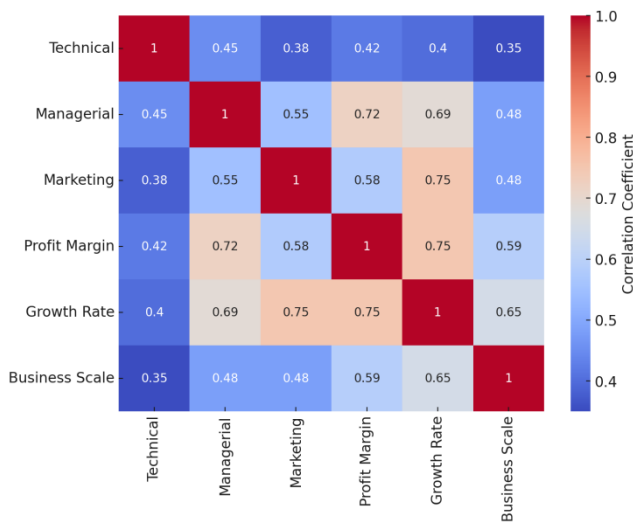


Figure 1. Heatmap of multivariate correlations among key success factors of young beef cattle entrepreneurs.
Source: Primary data analysis (2025)

a. Correlation Analysis of Success Factors

The multiple regression and multivariate correlation analyses were performed to further explore the relationships between the key success factors, namely technical, managerial, and marketing aspects, and important business performance indicators, such as profit margin, growth rate, and business scale. The outcomes of this analysis are visually represented in the heatmap (Figure 1), which provides a detailed overview of the strength and direction of these relationships. The heatmap employs a color gradient to reflect the correlation coefficients, with darker hues indicating stronger positive correlations and lighter hues showing weaker associations. Figure 1 illustrates that managerial factors have the most substantial positive correlations with profit margin ($r = 0.72$) and growth rate ($r = 0.69$). These findings are consistent with the multiple regression analysis, which identified managerial competence as the primary predictor of entrepreneurial success in the beef cattle sector. This suggests that young entrepreneurs with advanced managerial skills, particularly in strategic planning, financial management, and resource optimization, are more likely to achieve higher profitability and sustainable business growth. These results highlight the critical need for managerial training and capacity-building programs to enhance the business acumen of young farmers.

Marketing factors also positively correlate with profit margin ($r = 0.58$) and growth rate ($r = 0.55$). These correlations emphasize the crucial role of innovative and flexible marketing strategies in driving business success, such as digital marketing, direct sales, and diversified distribution channels. Entrepreneurs who effectively utilize marketing innovations are better able to access markets, achieve competitive pricing, and build customer loyalty, all of which contribute to improved financial performance.

Technical factors exhibit moderate yet significant correlations with profit margin ($r = 0.42$) and growth rate ($r = 0.40$), underscoring the supportive role of technology adoption and operational efficiency. Integrating precision livestock technologies, such as automated feeding systems and health monitoring tools, enhances production efficiency. However, these technological advancements are most effective when combined with strong managerial oversight and market-driven strategies.

The analysis reveals a positive correlation between business scale and managerial ($r = 0.60$), marketing ($r = 0.48$), and technical ($r = 0.35$) factors. This suggests that larger-scale operations are typically associated with better managerial practices, more advanced marketing efforts, and more efficient use of technology factors that contribute to increased production capacity and enhanced competitiveness.

These correlation patterns provide a deeper understanding of how the interaction between managerial, technical, and marketing factors influences business performance. The evidence supports the idea that focused interventions aimed at enhancing managerial skills, promoting marketing innovation, and facilitating technology adoption are essential for accelerating the sustainable growth of young entrepreneurs in the beef cattle farming sector.

b. Technical Factors

Adopting advanced agricultural technologies, including livestock health monitoring systems and automated feed management, has led to an average increase of 15% in meat production. These results align with the findings of Anwarudin et al. (2019), who confirmed that using precision livestock farming technologies enhanced operational efficiency and productivity in small-scale beef cattle farms. Moreover, regression analysis revealed a significant positive relationship between technical factors and business success ($\beta = 0.30$, $p < 0.001$), emphasizing the crucial role of practices such as precision feeding, rotational grazing, and advanced health monitoring in improving livestock performance and profitability (Rabithot et al., 2023). This highlights that embracing technological innovation is essential, not optional, for maintaining competitiveness in the livestock industry (Anwarudin et al., 2019).

c. Managerial Factors

Managerial competence was the most significant factor influencing success among young beef cattle entrepreneurs, as indicated by the highest regression coefficient ($\beta = 0.40$, $p < 0.001$). Entrepreneurs with strong skills in financial management, strategic planning, and resource allocation achieved more favorable business results, demonstrating greater resilience in overcoming operational and market-related challenges (Hamdani et al., 2024). This finding aligns with the conclusions of Gittins & McElwee (2023), who highlighted that financial literacy and advanced management practices are key to improving business sustainability, especially in industries vulnerable to price fluctuations and disruptions in supply chains. As such, effective leadership and decision-making are crucial for ensuring the long-term success of livestock enterprises (Khuong & Van, 2022).

d. Marketing Factors

Marketing strategies play a crucial role in the success of young entrepreneurs, particularly through digital platforms like social media and e-commerce. Regression analysis confirmed the importance of marketing factors ($\beta = 0.25$, $p < 0.001$), showing that effective promotion and strategic market positioning were key to driving business growth and broadening market reach (Gyimah & Lussier, 2021). Entrepreneurs actively engaging in online marketing and establishing robust distribution networks are better equipped to access domestic and international markets (Widiarta et al., 2024). Additionally, Hamdani et al. (2024) highlighted that digital transformation in agricultural marketing allows small-scale livestock enterprises to overcome geographical constraints, improving customer interaction and boosting competitiveness in the digital economy.

The regression coefficients shed light on the strength and direction of the influence each independent variable has on business success. The positive coefficients for technical, managerial, and marketing factors suggest that advancements in these areas are directly related to improved business performance (Rabithot et al., 2023). Among these, managerial competence has the most significant impact, emphasizing that success in beef cattle farming is primarily driven by sound business management and strategic decision-making rather than just technological adoption and market access (Khuong & Van, 2022). This highlights the urgent need for targeted managerial capacity-building programs aimed at young entrepreneurs in the livestock sector.

The Relationship Between Managerial Skills, Profitability, and Business Growth

Managerial skills are a crucial factor in determining livestock agribusinesses' financial and operational success. Effective management optimizes resource use, fosters innovation, enhances market adaptability, and ensures long-term business sustainability (Lawan, 2020). Table 3 classifies managerial skill levels and their corresponding profit margins, growth rates, and business characteristics to better understand this relationship.

Table 3. Categories of Managerial Skills and Their Impact on Business Performance			
Managerial Skill Category	Profit Margin (%)	Business Growth Rate (%)	Business Characteristics
Low (0–3)	<5%	<4%	Minimal innovation, weak cost control, stagnant
Medium (4–6)	5–15%	4–8%	Initial diversification, limited production increase
High (7–10)	>15%	>12%	Innovative, efficient, market expansion, digitalization

Source: Primary data analysis (2025)

As shown in Table 3, businesses with low managerial skills (score 0–3) tend to have low profit margins below 5% and growth rates under 4%, characterized by minimal innovation and stagnation. Meanwhile, those with medium-level skills (4–6) begin to diversify and slightly increase production, leading to moderate profitability and growth. High-level managerial skills (7–10) are associated with superior performance, with profit margins exceeding 15% and growth rates over 12%, driven by strategic innovation and technological adoption (Kamilaris et al., 2019).

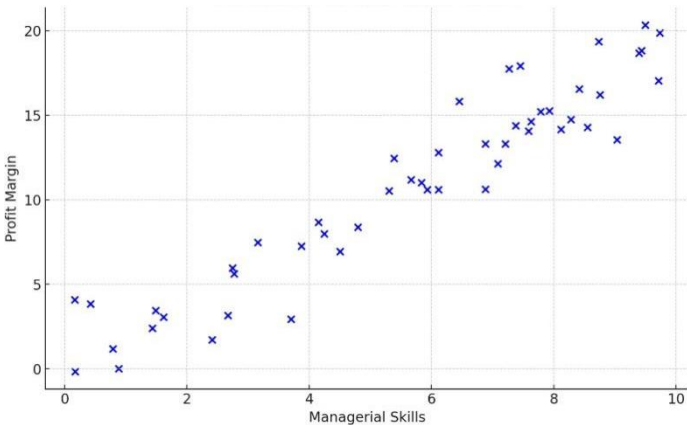


Figure 2. Scatter Plot of Managerial Skills and Profit Margin
Source: Primary data analysis (2025)

The results of this study are further supported by scatter plot analysis, which demonstrates the connection between managerial skills, profit margins, and business growth rates. As shown in Figure 2, a strong positive correlation exists between managerial skills and profit margins. Entrepreneurs with higher managerial competence tend to have larger profit margins. Proficiency in financial management, cost control, and production optimization significantly boosts operational efficiency and enhances net profits (Zaman et al., 2025). These skills are especially vital in the livestock industry, where feed and market prices often fluctuate (Morozova et al., 2019). Figure 3 illustrates a positive relationship between managerial skills and business growth rates. Young entrepreneurs with practical managerial abilities can scale their operations, increase production capacity, and broaden their market presence, contributing to rapid business growth (Mtengwa, 2023). This observation is consistent with the regression analysis, highlighting that managerial factors contribute the most to business success ($\beta = 0.40$, $p < 0.001$). This suggests that stronger managerial skills significantly increase the likelihood of success in beef cattle farming enterprises (Bang & Han, 2025).

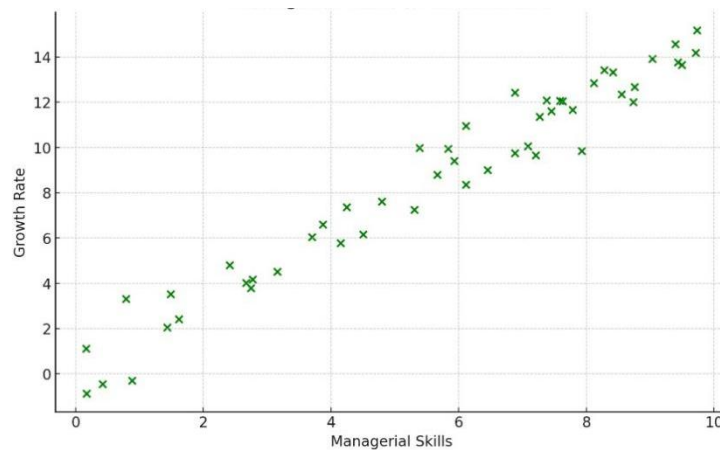


Figure 3. Scatter Plot of Managerial Skills and Business Growth Rate
Source: Primary data analysis (2025)

The correlations presented in both scatter plots emphasize that enhancing managerial capacity is a critical strategy for promoting sustainability and boosting profitability within the livestock sector. This aligns with previous studies by Mehmood (2023), which indicated that strategic management skills such as business planning, risk assessment, and human resource management improve business competitiveness and help entrepreneurs adapt to fluctuating market conditions. Therefore, it is essential to integrate the development of managerial skills through focused training and mentoring programs into youth entrepreneurship policies in the livestock sector (Mdluli, 2020).

Policy Recommendations

The advancement of young entrepreneurs in the beef cattle agribusiness sector requires comprehensive policy actions to address systemic challenges, particularly in finance, education, and institutional support. Firstly, enhancing access to financial resources is crucial. Limited access to affordable financing continues to be a significant obstacle for young livestock entrepreneurs, hindering their ability to invest in technologies that boost productivity and scale their operations. Data from the Indonesian Central Statistics Agency (BPS, 2023) reveals that only 28% of young livestock entrepreneurs have secured formal credit, highlighting the pressing need for government-backed financing programs for youth agribusinesses. Evidence from Thailand's "Young Smart Farmer" program demonstrates the success of such targeted financing, reporting a 35% increase in agribusiness investments through innovation grants and low-interest loans (Rajsinghot et al., 2024). Implementing similar financing strategies in Indonesia, alongside strong financial literacy programs, would significantly strengthen the entrepreneurial capabilities of young beef cattle farmers (Ogunmokun, 2018).

Secondly, expanding educational and training programs focused on managerial skills and agribusiness innovation is essential. Young entrepreneurs need more than just technical expertise in livestock management; they require advanced training in financial management, strategic business planning, and risk management. Research by Ramos-Rodríguez et al. (2024) demonstrated that agribusiness training programs incorporating financial literacy and business modeling boosted business resilience by over 40%. Additionally, region-specific training, such as forage management in drought-prone areas and digital marketing for urban settings, further enhances the relevance and effectiveness of these programs (Suharto et al., 2022). Establishing these educational initiatives through agricultural universities and extension services is key to ensuring continuous knowledge transfer and skill development.

Thirdly, creating structured mentorship and networking platforms is crucial for ensuring youth-led livestock enterprises' long-term sustainability and competitiveness. Empirical evidence shows that mentorship can accelerate entrepreneurial success by promoting knowledge sharing, unlocking access to premium markets, and fostering innovation. For example, Australia's "Farm Hub Mentorship" program increased young farmers' incomes by 22% over two years, primarily through focused mentorship and strategic partnerships within the supply chain (Harpa et al., 2015). Implementing similar mentorship networks in Indonesia, supported by collaborations between public and private sectors, could link young beef cattle entrepreneurs with industry experts, financial institutions, and export market facilitators (Yuliana & Pratama, 2021).

Practical Recommendations for Entrepreneurs

At the operational level, young entrepreneurs should develop advanced managerial skills. Sound financial planning, careful resource allocation, and effective risk management are essential for maintaining business sustainability, especially in market fluctuations. With feed prices fluctuating by an average of 15% each quarter (Puslitbangnak, 2023), conducting thorough cost-benefit analyses and adopting flexible operational strategies is critical (Wahyudi et al., 2024).

Integrating modern agricultural technologies should be a key strategic focus. Research shows that innovative farming technologies, such as IoT-based health monitoring systems and automated feeding systems, can lower livestock mortality by 12% and boost overall productivity by up to 25% (Islam et al., 2024). These technologies enhance resource efficiency and improve animal welfare, increasing profitability and long-term business viability. Developing effective digital marketing strategies to expand market reach and boost profitability is crucial. As online marketplaces and social media platforms increasingly influence consumer behavior, young entrepreneurs must build strong brand identities and establish a significant online presence. According to Ude (2020), businesses that utilized digital marketing saw an 18% increase in sales through online platforms like "TernakMart." By leveraging e-commerce, entrepreneurs can enhance market access, reduce reliance on traditional intermediaries, and improve profit margins through direct consumer engagement (Wahyuni & Santoso, 2022).

Comparative International Perspectives

The importance of the policy and practical recommendations in this study is further supported by a comparative analysis of international best practices that have successfully promoted youth entrepreneurship in the livestock sector. These global examples highlight the need for integrated policy frameworks and institutional support mechanisms to address the structural challenges young entrepreneurs face in emerging economies.

In Thailand, the "Young Smart Farmer" (YSF) program has been pivotal in increasing youth involvement in agriculture, especially within the livestock sector. This program takes a comprehensive approach by providing financial support, technical training, and mentorship. According to Rajshinghot et al. (2024), participants in the YSF program saw a 30% rise in income and a 35% increase in agribusiness investments over two years. The program's success is attributed to its holistic approach, which includes innovation grants, low-interest loans, and continuous capacity-building support. Additionally, YSF encourages peer-to-peer learning and facilitates market linkages, boosting the competitiveness of young beef cattle farmers, particularly in regions where demand for high-quality beef is growing. This example underscores the significance of collaboration among various stakeholders and the role of youth-focused financing in driving innovation and entrepreneurship in the livestock sector.

Australia's "Farm Hub Mentorship" program further illustrates the strategic value of mentorship and networking in improving agribusiness performance. Through structured mentorship, young livestock entrepreneurs receive guidance from experienced professionals in operational management, market analysis, and strategic planning. Harpa et al. (2015) found that participants in the program experienced a 22% increase in annual income and a 25% improvement in production efficiency over two years. The mentorship facilitated the transfer of knowledge on advanced grazing techniques, animal welfare standards, and export market requirements while providing access to premium supply chains. This case emphasizes the essential role of mentorship in providing technical expertise and integrating young entrepreneurs into competitive value chains, thus ensuring the long-term sustainability of their businesses in global markets.

Implementing digital livestock traceability systems in Kenya has significantly improved market access for young entrepreneurs. Nipo et al. (2024) noted that digital tracking technologies help producers meet export standards, resulting in an 18% increase in beef export volumes over two years. These technological innovations have expanded market opportunities and reduced risks for young farmers by enhancing transparency, improving disease control, and optimizing supply chain management. The Kenyan experience demonstrates that, when combined with institutional support, technological interventions can effectively address common challenges youth in the livestock sector face, such as limited market access and weak bargaining power.

These international case studies illustrate that fostering successful youth entrepreneurship in the livestock sector requires a comprehensive approach integrating financial incentives, capacity-building, technological innovation, and market integration. The positive outcomes observed in Thailand, Australia, and Kenya reinforce the need for

youth-centered policy frameworks that address young entrepreneurs' challenges. These global best practices offer valuable insights for Indonesia, highlighting the importance of creating support systems that tackle immediate operational challenges while promoting long-term business sustainability through strategic investments in human capital, technology, and market development (Mbogoh et al., 2020). Consequently, adapting and localizing these successful models presents a critical opportunity for Indonesia to cultivate globally competitive and resilient youth-led beef cattle agribusinesses.

Conclusion

This study highlights the importance of technical, managerial, and marketing factors as key elements determining young entrepreneurs' success in Indonesia's beef cattle farming sector. Among these, managerial competence has the most significant impact, emphasizing the need for strong financial management, strategic business planning, and operational innovation. Technical factors, such as the adoption of modern agricultural technologies and digital marketing strategies, also play a significant role in improving business performance. The positive correlations observed between managerial skills, profitability, and business growth further demonstrate that investing in human capital is crucial for the long-term sustainability of youth-led livestock ventures. These findings underscore the critical need for supportive policies that ensure access to finance, comprehensive managerial development, and integrated technological resources. Furthermore, adopting successful international models, such as Thailand's Young Smart Farmer program and Australia's Farm Hub Mentorship, could provide valuable frameworks to strengthen youth entrepreneurship in the livestock sector. Ultimately, achieving success for young entrepreneurs in beef cattle farming requires a collaborative effort from the government, private sector, and academic institutions to foster an environment conducive to growth. This includes addressing structural barriers and promoting the development of resilient, innovative, and competitive agribusinesses that can contribute to Indonesia's food security and rural economic development.

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